

# IDENTIFICATION OF SOMATIC MUTATIONS IN NON-SMALL CELL LUNG CARCINOMAS USING WHOLE-EXOME SEQUENCING

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## SUPPLEMENTARY DATA

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**Supplementary Figure 2. dN/dS across the samples.** (A) ADC and SCC; (B) smokers and nonsmokers.

**Supplementary Figure 3. Somatic single-nucleotide mutation trends and patterns in lung cancer.**

Distribution of specific nucleotide changes among germline and somatic variations in the lung cancer exome was present for different histology (ADC and SCC) and smoking status (SMK and NonSMK).

**Supplementary Figure 4. Somatic mutations in CSMD3.** (A) Image from Ensemble website; arrows point to approximate location of mutations and are color index by sample. (B) Locations of somatic mutations in protein domain.

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## **Full Methods**

### **Lung tumor histology**

Thirty-one pairs of lung tumors and matched normal tissues were analyzed, including 16 adenocarcinomas, 12 squamous cell carcinomas, 1 adenosquamous carcinoma, 1 Bronchioloalveolar carcinoma (BAC), and 1 adenocarcinoma with BAC (**Supplementary Table 1**). Five samples are from never smokers and the others are from smokers. Five patients have at least one first-degree relative with lung cancer, and the other 26 patients do not have family history of lung cancer. The study protocols were approved by Roswell Park Cancer Institute and Mayo Clinic Institute Review Boards.

### **DNA sample preparation**

Tumor tissues were micro-dissected to identify areas of adequate tumor cellularity (>70%) for DNA extraction. Genomic DNA samples for exome sequencing were extracted from lung tumors and matched normal tissues. Primary tumor tissues were sectioned, stained with routine hematoxylin and eosin, and reviewed by pathologists to identify areas of adequate tumor cellularity. Only tumor tissues with at least 70% tumor cells were used in this study.

### **Library preparation**

Paired-end libraries were prepared following the manufacturer's protocol (Illumina and Agilent). Briefly, 3 ug of genomic DNA was fragmented to 150-200 bp using the Covaris E210 sonicator. The ends were repaired, and an "A" base was added to the 3' ends. Paired end DNA adaptors (Illumina) with a single "T" base overhang at the 3' end were ligated and the resulting constructs were purified using AMPure SPRI beads from Agencourt. The adapter-modified DNA fragments were enriched by 4 cycles of PCR using PE 1.0 forward and PE 2.0 reverse (Illumina) primers. The concentration and size distribution of the libraries was determined on an Agilent Bioanalyzer DNA 1000 chip.

### **Capture of target genome**

Whole exon capture was carried out using the protocol for Agilent's SureSelect Human All Exon kit (38MB). Five hundred ng of the prepped library was incubated with whole exon biotinylated RNA capture baits supplied in the kit for 24 hours at 65 °C. The captured DNA:RNA hybrids were recovered using Dynabeads MyOne Streptavidin T1 from Dnal. The DNA was eluted from the beads and desalted using Qiagen MinElute PCR purification columns. The purified capture products were then amplified using the SureSelect GA PCR primers (Agilent) for 12 cycles.

### **Massively parallel sequencing**

Sequencing was carried out for the captured libraries with the Illumina Genome Analyzer IIx platform (GAIIx) using 75 bp paired-end reads (3 samples) and with HiSeq 2000 using 100 bp paired-end reads. Libraries were loaded onto paired end flow cells at concentrations of 6-8 pM (GAIIx) or 4-5 pM (HiSeq 2000) to generate cluster densities of 250,000-350,000/tile (GAIIx) or 300,000-500,000/mm<sup>2</sup> (HiSeq 2000) following Illumina's standard protocol using the Illumina cluster station and Paired end cluster kit version 4 (GAIIx) or the Illumina cBot and HiSeq Paired end cluster kit version 1 (HiSeq 2000). To achieve high level of sensitivity and accuracy for detecting all the mutations in the whole exome, each sample was sequenced at the depth of, on average, 123X (Supplementary Table 2). Image analysis and base calling were carried out by Illumina Software CASAVA with default parameters.

### **Quality control**

After the next-generation sequencing is done, the Illumina analysis tool CASAVA was used to process the raw sequencing data. The resulting Eland alignment from Illumina pipeline was used to estimate an error rate for each read/cluster. If a sequencing run/lane had an error rate above 2%, the run will be considered a failure and the data will not be used. The quality of the sequencing runs was also assessed by evaluating the percentage of clusters passing filtering criteria and the percentage of reads that can be aligned to the reference genome. For a typical run, over 70% of clusters pass filter and over 80% align. Any major deviations from these values would trigger further evaluation (average intensity, error graphs, etc) and likely lead to the abandon of these runs/lanes for study. Short reads data in the FASTQ format that passed quality control were then processed by our in-house analysis pipeline for the identification of important somatic mutations underlying lung carcinogenesis.

## ***Read mapping and alignment and variant analysis***

We recently developed an in-house analysis pipeline for cancer genome sequencing data. This pipeline essentially includes 1) Mapping and alignment, 2) SNVs and indels discovery, and 3) SNVs and indels filtering and annotation. Briefly, once the raw sequence data was created, the output short reads were aligned to a reference genome (NCBI human genome assembly build 36) using the BWA [1]. Each alignment was assigned a mapping quality score by BWA, which is the Phred-scaled probability that the alignment is incorrect. The PCR duplicates were detected and removed by Picard (<http://picard.sourceforge.net>). After alignment, we used the SomaticSniper (<http://genome.wustl.edu/software/somaticsniper>) and VarScan [2] to call SNV for each chromosomal position. We defined high-quality SNVs as those detected both by SomaticSniper with Somatic Score 60 and SNP mapping quality 60 and by VarScan with somatic p value 0.05. To minimize false positives, we also set minimum coverage as 8X in normal and 15X in tumor, minimum reads of variant allele as 4 and minimum proportion of variant allele as 15% in tumor. We also filter by minimum number of 2 reads supporting the variant allele per strand. For indels called from VarScan, we further remove them with any support reads from its matched normal control.

The lists of SNVs/indels were finally annotated by using ANNOVAR (<http://www.openbioinformatics.org/annovar/>). ANNOVA is software to utilize update-to-date information to functionally annotate genetic variants detected from diverse genomes. We first filtered SNVs/indels by various public databases including dbSNP, 1000 genomes, HapMap exome Project and 200 Danish exome [3]. After filtering, these novel SNVs/indels were subject to annotation using NCBI, UCSC and Ensembl databases. For SNVs, we also used SIFT software to predict whether an amino acid substitution affects protein function so that users can prioritize SNVs for further study (<http://blocks.fhcrc.org/sift/SIFT.html>). Finally, we prioritize these SNVs/indels into the following Tiers:

Tier1: frameshift-, missense-, nonsense-, splicing sites-mutations, and small indels in CDS

Tier2: Synonymous, ncRNA, and intronic mutations in conserved genomic regions

Tier3: SNVs/indels in non-repeat masked regions

Tier4: All remaining SNVs/indels.

## ***Identification of driver mutations***

At the gene level, we determined if a somatic gene has significantly higher mutation rate in nonsynonymous changes than in synonymous changes. We recently introduced the Poisson processes used to model the random nature of mutation under no selection pressure (X Hua et al, manuscript in preparation). The proposed approach is applicable to both gene- and pathway-based analysis and possesses two prominent properties: 1) account for protein coding size of gene, and 2) consider individual background mutation rate. Briefly, somatic mutations are classified into silent, missense, nonsense and splicing mutations; each of mutations are further classified into nine of nucleotide types based on the base of interest and its flanking bases and location of CpG islands. For each mutation type, we calculate the number of base pairs in the coding sequence of a gene that can give rise to nonsynonymous and synonymous changes. Background mutation rates were first estimated for each individual by empirical Bayes methods which borrow information from all the samples. Then, the mutation rates for nonsynonymous changes were obtained by maximum likelihood estimation and were further tested by likelihood ratio and score tests. Since the number of mutations for individual gene is small, we combine all nonsynonymous mutations into one category in the statistical analysis.

At the individual mutation level, we used four new and popular algorithms (SIFT[4], Polyphen2[5], LRT[6] and MutationTaster[7]), along with a conservation score (PhyloP)[8] to predict if a nonsynonymous SNP affects its protein function. These four algorithms use different information and are based on different training data; each has its own strength and weakness. The prediction scores from these algorithms were recently compiled in the database dbNSFP (<http://sites.google.com/site/jpopgen/dbNSFP>). To make a more reliable prediction, we used majority vote standard to identify putative driver mutations. That is, a driver mutation needs to fulfill two requirements: 1) a nonsynonymous SNP is located within a conserved site (i.e.,  $\text{phyloP}_{\text{new}} > 0.95$ ), and 2) a nonsynonymous SNP is predicted by at least three of four algorithms to affect protein function. In each prediction algorithm, we used default thresholds to define deleterious/damaging nonsynonymous SNPs.

### ***Exome-seq coverage (sequencing depth) quantification***

Using the exomic sequencing data of the 31 tumor-normal pairs of lung cancer patients, we applied SeqGene package (<http://sourceforge.net/projects/seqgene/files/>) to run the calculation of coverage statistics for the whole exome of each sequenced sample. The quality control report yielded by SeqGene

includes the coverage statistics for exon capture experiments, the percentage of reads that covers target exons (specificity) and coverage quantile across all exons (sensitivity). Specifically, the 'sam2wig' function efficiently converts the alignment file into the per-base resolution coverage file in '.wig' format. For exome-Seq, the 'exon\_qc' function report all the missing and defective regions with poor coverage, the quantile of the average exon coverage across exome (coverage sensitivity) and the percentage of total mapped reads aligned onto target exon regions (coverage specificity). The coverage statistics for 31 tumor-normal pairs of this project are summarized in Supplemental Table 2. The exome capture and sequencing results are within the normal range of performance specified by the manufacturer and are comparable with published results using the same technology [9].

### ***Comparison of exome sequencing to the COSMIC database of cancer mutations***

We downloaded somatic mutation data from the latest Sanger COSMIC database v53 release (<http://www.sanger.ac.uk/genetics/CGP/cosmic/>) and compare with our exome sequencing results for the 31 tumor-normal pairs. The comparison is done in the following two ways. First we checked whether the somatic mutated genes we identified were also reported by COSMIC previously (not limited to cancer types). Second we checked whether the exact somatic mutations we identified were also in COSMIC database.

### ***Pathway and protein interaction network analyses***

The analysis of the mutations by pathways and groups consists of several components. The first component is gene-based gene-set enrichment analysis for selected pathways reported to be significant for cancer and particularly lung cancer. For this component, we determined the number of genes mutated by type (silent vs non-silent, critical vs silent) and the number of mutated samples across our samples in previously defined 'core cancer' pathways [10], published lung cancer pathways, and several hundred other gene sets of the GeneGo MetaCore database [11-14]. We measured the significance for each category in terms of difference between the observed and expected ratios of nonsynonymous mutations to synonymous mutations by pathway or category. A p-value was computed based on a binomial distribution.



The second component is patient-based gene-set enrichment and pathway analysis using the method introduced in Boca et al [15] and applied in Parsons et al (2011) with the permutation null without heterogeneity approach for assessing significance [16]. This approach was applied to the gene sets described above and other gene sets of the GeneGo MetaCore database [14]. We also applied this method to the critical mutations. The critical mutations are defined as the nonsense, frameshift, and missense mutations that are predicted to affect protein function (SIFT scores < 0.05).

Lastly, we generated networks of selected genes (as defined in the Results section). Direct interaction protein networks were generated for the frequently mutated genes in common between ADC and SCC, the genes only mutated in ADC, and the genes only mutated in SCC. We also generated a network with both direct and indirect interactions for the driver genes mutated in both ADC and SCC that do not have known direct interactions with the other commonly mutated genes. The networks were generated using the GeneGo MetaCore software [14]. With regard to the gene selection as input for these algorithms, for commonalities between ADC and SCC, we selected all those genes with 3 or more non-silent mutations of at least two subtypes as well as those genes with a critical mutation as defined above in each subtype and which belongs to one of the top 25 scoring pathways based on the critical mutation definitions (219 genes). We created direct interaction networks for the protein products of these genes. We similarly created direct interaction protein network for SCC-only mutated genes and genes of frequently mutated pathways for which mutations were observed only in SCC (158 genes) and for the ADC-only mutated genes (106 genes) and genes of frequently mutated pathways for which mutations were observed only in ADC. The driver genes include p53, 6 genes that interact as component of olfactory receptor. For the remaining driver genes which had little or no direct interaction with other mutated genes, we applied a 'direct and indirect interactions' algorithm, the GeneGo 'Analyze Network' algorithm. This network was created by merging the top 3 network found by the GeneGo 'Analyze Network' algorithm. It starts with seed nodes as proteins from the input gene list and adds other genes up to a max of 50 prior to merging. All the proteins from the input gene list are in this merged network.

### ***Sanger validation***

To valid the somatic mutations that were identified by high-through put sequencing technology, we further performed Sanger sequencing using ABI 3730 sequencer. We selected 670 somatic mutations

from 31 tumors and designed specific primers (supplementary file) around the mutations for PCR and sequencing reaction.

The standard PCR was conducted in a 25  $\mu$ l reaction volume that contains 1–2 U Taq DNA polymerase, 10 mM Tris-HCl (pH 8.3), 0.25 mM dNTPs, 0.2–2 mM BSA, 1.5–2.5 mM MgCl<sub>2</sub>, 20 pM of each primer, and about 10 ng camel genome DNA. The PCR reaction conditions were set as: 94°C for the first 5 min, followed by 35 cycles of 94°C denaturation for 30s, 50°C annealing for 30s, and 72°C extension for 45s. The PCR were accompanied by negative controls containing the reaction solutions without DNA. The thermo-cycling sequencing reaction was performed in a final volume of 24  $\mu$ l containing 16  $\mu$ l DYEnamic ET Terminator Sequencing Kit premix, 10 pM sequencing primers, and 500  $\mu$ g DNA. The reaction conditions were 95°C for 2 min, followed by 35 cycles of 95°C denaturation for 15s, 50°C annealing for 15s, and 60°C extension for 90s. The amplified DNA fragments were sequenced on ABI-3730 DNA sequencer. The primers for PCR reaction were used for sequencing. DNA sequences were assembled by using the software package sequencher on a windows platform.

### ***NimbleGen genotyping platform***

**Preparation of DNA samples** Detailed description of the AccuSNP™ genotyping assay can be found in the NimbleGen AccuSNP™ User's Guide version 1. Briefly, 1 $\mu$ g of genomic DNA was denatured at 98°C with 1.25 O.D. of random nonamers in AccuSNP™ WGA Kit reaction buffer. The denatured sample was chilled on ice, and then incubated with 100 units of (exo<sup>-</sup>) Klenow fragment and dNTP mix for 2 hours at 37°C. Reaction was terminated by incubation at 75°C for 20 minutes. Fragmentation of DNA was accomplished by adding acetic acid to the amplified DNA to a final concentration of 0.05M and incubated for 22 minutes at 95°C. The sample was chilled on ice for 2 minutes prior to adding NaOH to a final concentration of 0.12M. The sample was then incubated for 40 minutes at 95°C. The ends of the fragmented DNA was dephosphorylated by incubating with 40U of alkaline phosphatase for 1 hour at 50°C. The DNA sample was then purified using a Roche AccuSNP DNA purification kit, with the following modifications. 296.4 $\mu$ l of Binding Buffer was added to the DNA, followed by the addition of 444.6 $\mu$ l of Binding Enhancer. The DNA sample was added to the High Pure Filter Tube, washed and eluted in 50 $\mu$ l of Elution Buffer as per manufacturer's instruction. Fragment sizes were verified to be 25-125bp using gel electrophoresis. End labeling was accomplished by incubating 75 $\mu$ g of amplified and fragmented DNA sample with 0.16mM biotin-16-dUTP and 800U of recombinant terminal transferase for 1 hour at

37°C. The reaction was terminated by heating to 95°C for 2 minutes, followed the addition of 1µL of 0.5M EDTA. The labeled DNA was purified using a Roche High Pure DNA purification kit as described above, except using 200µL of Binding Buffer and 300µL of Binding Enhancer. All other steps were performed as per manufacturer's instruction. Labeling efficiency was assessed using a gel-shift assay with streptavidin.

**Microarray Hybridization** 50µg of sample was rehydrated in 10µl of NimbleGen Hybridization Buffer (Roche NimbleGen), denatured at 95°C for 5 min, and then cooled to 42°C. Hybridizations were carried out for 18 hours at 42°C in the NimbleGen Hybridization System. The arrays were washed using a NimbleGen Wash Buffer System and immediately dried by centrifugation.

**Enzymatic Treatment and Staining** Hybridized array was blocked with 3X casein for 10 minutes at room temperature prior to incubation with a flap endonuclease and DNA Ligase in AccuSNP™ array buffer at 50°C for 1 hour. The arrays were washed using a NimbleGen Wash Buffer System and then incubated in 98°C water for 2 minutes. The microarray was blocked with 3X casein for 10 minutes at room temperature prior to staining. Staining was performed by adding the following solutions to the flow through chamber containing the array and incubating at room temperature for 10 minutes after addition of each reagent (1) 3mL of blocking/wash buffer (2) 2mL of streptavidin-Cy3 solution (3) 3mL of blocking/wash buffer (4) 1mL of anti-streptavidin solution (5) 3mL of blocking/wash buffer. Steps 2-5 are repeated 2 more times prior to a final addition of 2mL of streptavidin-Cy3. The array was washed in 1X PBS for 2 minutes, followed by a water wash for 5 seconds, and immediately dried by centrifugation. Arrays are scanned at 2 µm in a Roche NimbleGen MS200 scanner.

### ***Cell Culture and shRNA Knockdown***

Beas-2b cells were cultured in complete BEGM with supplements (Lonza, Basel, Switzerland) on tissue culture dishes coated with 10ug/ml fibronectin, 30ug/ml bovine collagen type I, and 10ug/ml BSA. Cells were transduced with lentiviral short-hairpin RNA (shRNA) vectors based on the pLKO.1 vector and designed to specifically target human CSMD3 transcript (Open Biosystems, Huntsville, AL). Empty vector or vector knocking down CSMD3 transcript were first packaged in 293T cells (Orbigen, San Diego, CA) with helper plasmids and then transduced into A549 cells with 8 µg/ml Polybrene (Sigma, St. Louis, MO). Media was replaced 24 hours after transduction, and cells were split 1:4 48 hours after transduction. At

72 hours post transduction, cells harboring lentiviral constructs were selected with 1  $\mu$ g/ml puromycin for 2-4 days, until mock infected cells were dead. Resulting foci and plates were photographed. Foci and pooled cells were harvested by trypsinization and propagated in culture.

### ***RT-Quantitative Real-Time PCR***

One microgram of total RNA per sample was converted to cDNA using the BioRad iScript Kit. Quantitative RT-PCR assay was done using the Ssofast SYBR Green PCR Master Mix (BioRad, Hercules, CA). One microliter of cDNA was added to a 20  $\mu$ L total volume reaction mixture containing water, SYBR Green PCR Master Mix, and primers. Each real-time assay was done in triplicate on a BioRad CFX96 machine. The  *$\beta$ -actin* gene (*Actb*) was used as an internal control to compute the relative expression level ( $\Delta C_T$ ) for each sample. Primer set efficiency and linearity was calculated, and normalization was performed in accordance with MIQE guidelines. The fold change of transcript accumulation in cells with knockdown as compared to vector control cells was calculated as  $2^d$ , where  $d = \Delta C_{T \text{ control}} - \Delta C_{T \text{ knockdown}}$ .

### ***MTS Proliferation Assay***

Cells were seeded onto 12-well tissue culture dishes at a density of 5000 cells per well. Cells were assayed for viable cell numbers in triplicate by adding 100ul per well of the MTS based CellTiter 96 AQueous One Solution Cell Proliferation reagent (Promega, Madison, WI), and measuring A490 on a plate reader over 8 days in culture.

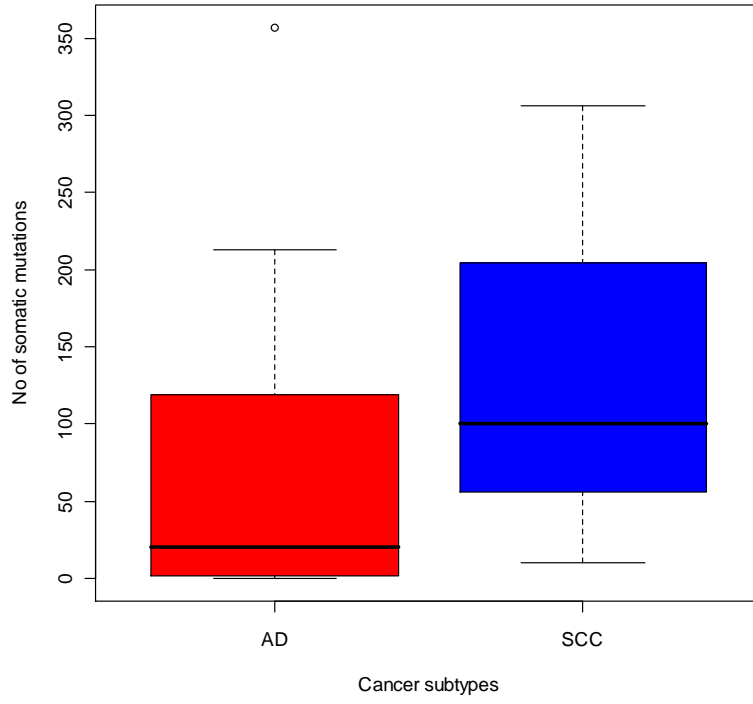
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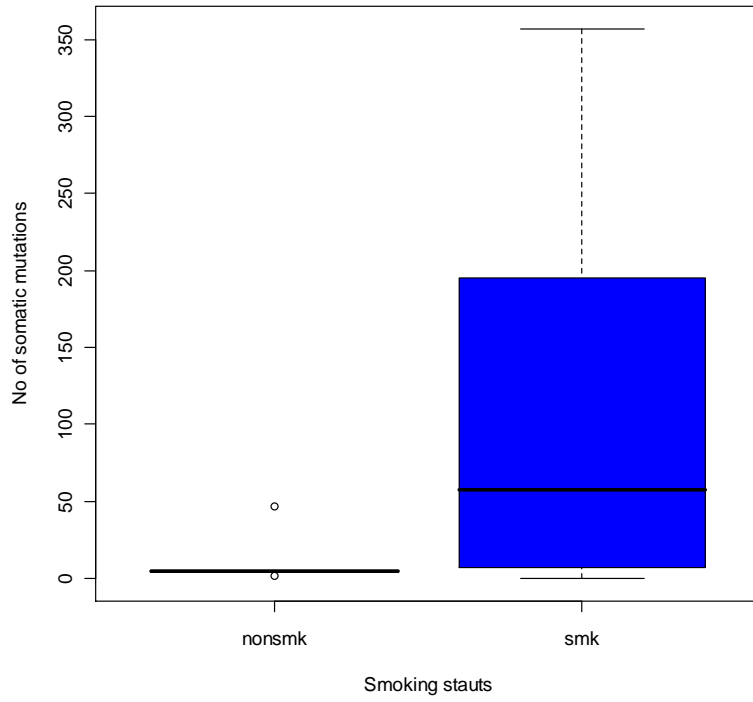
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Supplementary Figure 1

(A)

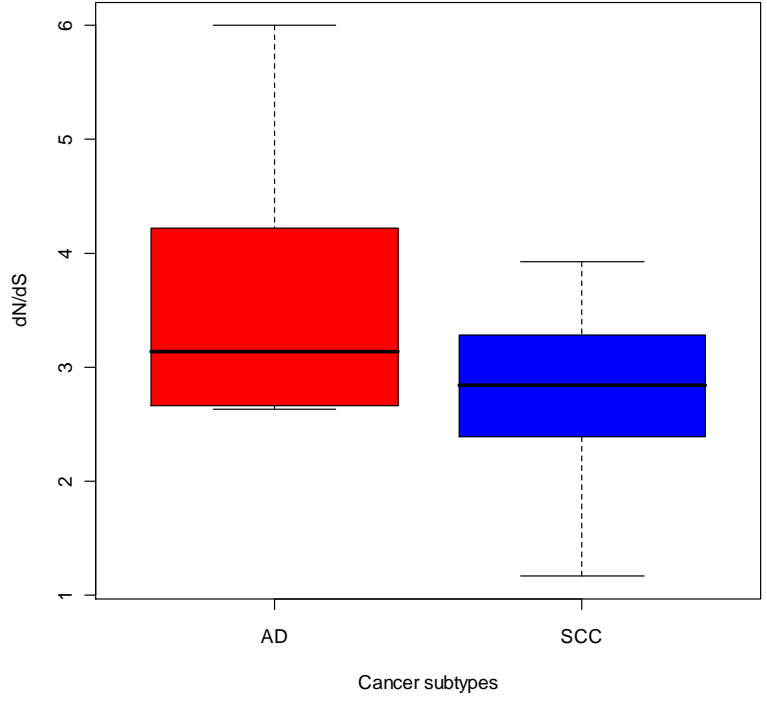


(B)

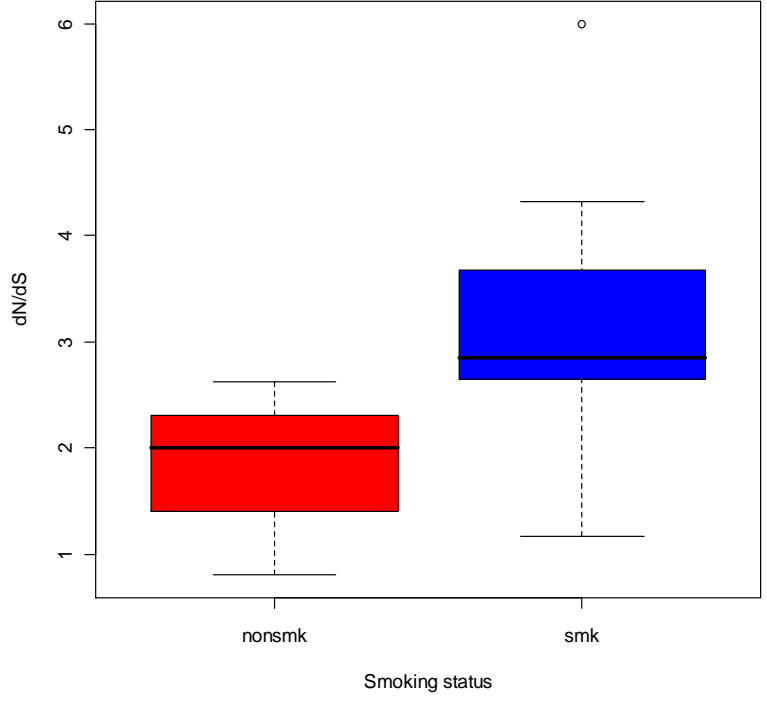


Supplementary Figure 2

(A)

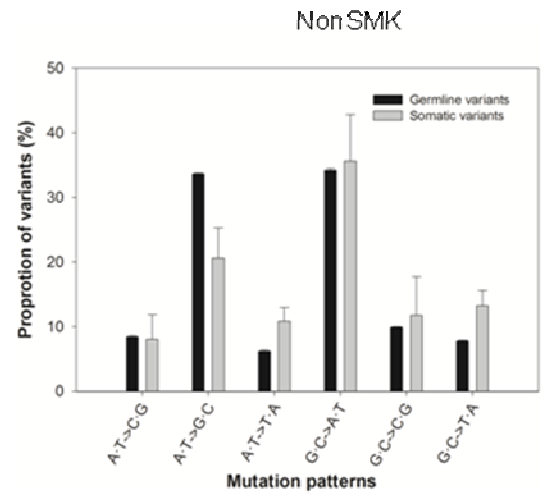
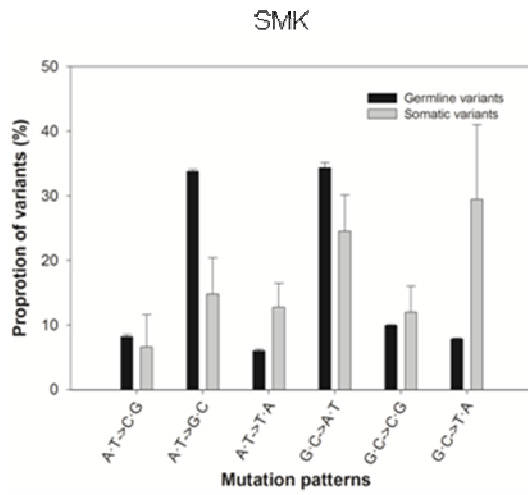
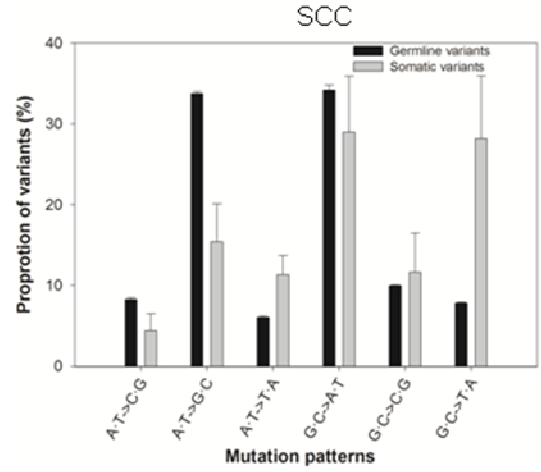
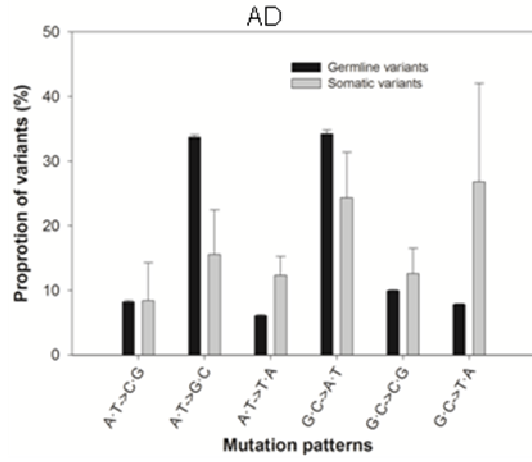


(B)



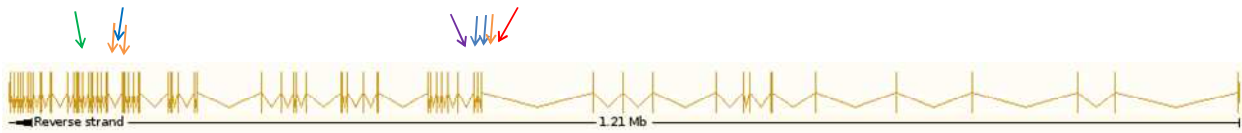


Supplementary Figure 3



## Supplementary Figure 4

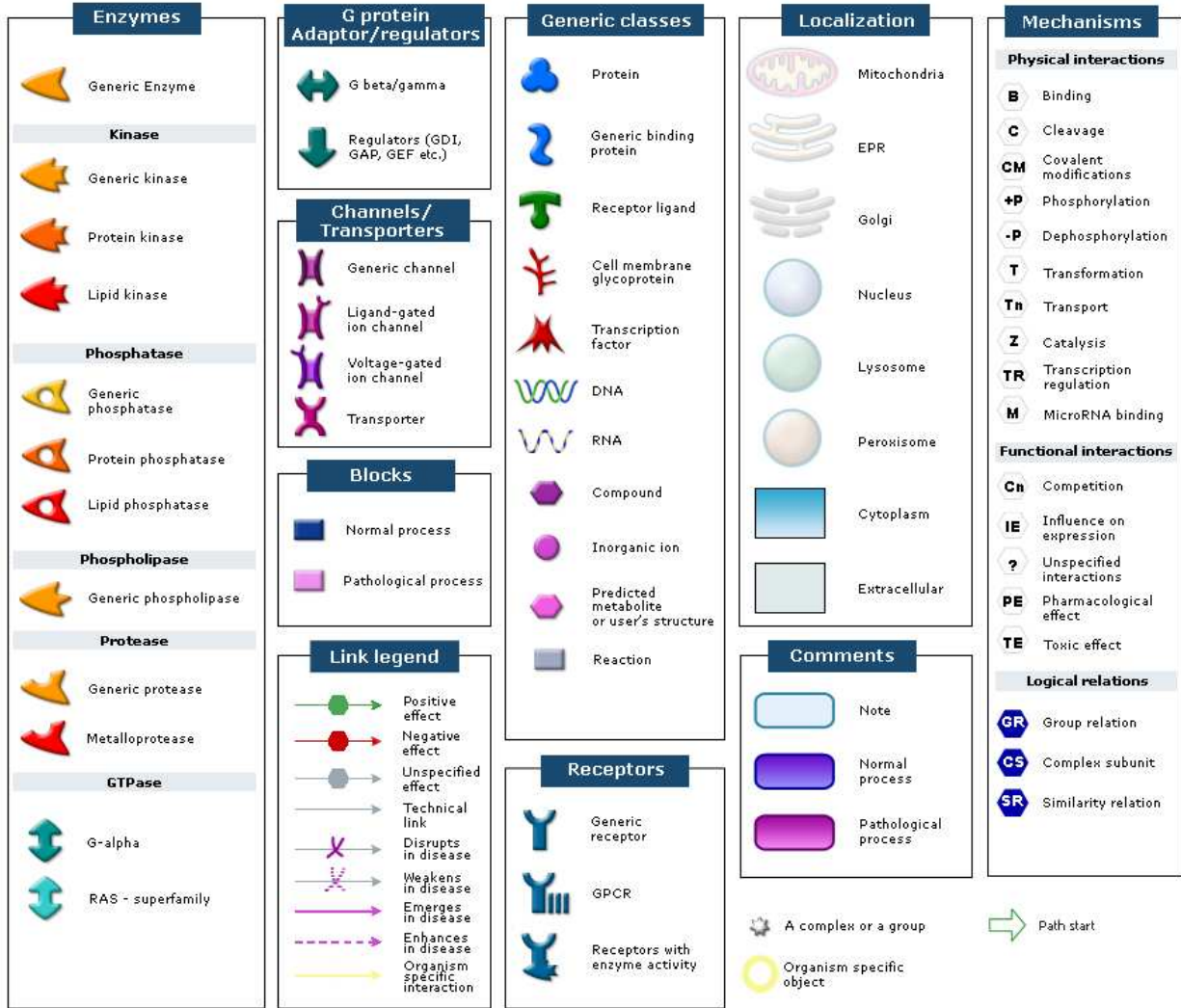
(A)



(B)

Sample	Exon	Position	Mutation_Type	Amino_acid	Protein_domain
13280	71	113306313	missense	p.T3623S	Transmembrane
7285		113336833	splicing		
12586	60	113346981	missense	p.D3135Y	Sushi_SCR_CCP
7285	53	113383314	missense	p.T2735S	Sushi_SCR_CCP
12820	21	113720196	missense	p.T1104K	CUB
15145	20	113726543	missense	p.T1054K	Sushi_SCR_CCP
12820	18	113737583	missense	p.N954D	CUB
7285	17	113747682	missense	p.R835T	Sushi_SCR_CCP
13542	15	113767075	missense	p.G700W	Sushi_SCR_CCP

Supplementary Figure 5



**Supplementary Table 1.** Clinical characteristics of 31 lung cancer samples in the exome sequencing study

<b>Sample_ID</b>	<b>Subtype</b>	<b>Stage</b>	<b>Age_at_DX</b>	<b>Race</b>	<b>Smoking_St</b>	<b>PackYears</b>	<b>Family_history</b>
L383	ADC_with_BAC	IA	43	Black	Former	29	Familial
Lu-597	ADC	IIIA	48	Caucasian	Never	0	two grantparents
Lu-2375	ADC	IIA	36	Caucasian	Never	0	one 1st-degree
LU-1516	BAC	IA	75	Alskn/Ind	Former	1.5ppd	one 1st-degree
LU-1800	ADC	IV	46	Caucasian	Current	1.5ppd	No
LU-1991	ADC	IIB	74	Alskn/Ind	Former	1.0ppd	No
LU-2349	ADC	IA	64	Alskn/Ind	Former	1.0ppd	one 1st-degree
7285	SCC	IB	71	Caucasian	Former	NoData	No
7313	SCC	IB	71	Caucasian	Former	NoData	No
7945	AD	I	69	Caucasian	Never	0	No
7996	SCC	I	63	Caucasian	Former	NoData	No
12586	AD	IB	65	Caucasian	Former	NoData	No
12804	SCC	IB	74	Caucasian	Current	NoData	No
12820	SCC	IA	75	Caucasian	Former	NoData	No
12862	AD	IA	60	Black	Former	NoData	No
12924	SCC	IA	58	Caucasian	Current	NoData	No
13280	SCC	IA	69	Caucasian	Current	NoData	No
13299	AD	IA	77	Caucasian	Former	NoData	No
13394	SCC	IB	70	Caucasian	Former	NoData	No
13542	SCC	IIB	64	Caucasian	Former	NoData	No
13681	AD	IIIA	69	Caucasian	Former	NoData	No
15145	SCC	IIIA	67	Caucasian	Current	NoData	No
15637	AD	IA	69	Caucasian	Current	NoData	No
15822	AD	IB	68	Caucasian	Never	0	No
15858	AD	IA	58	Caucasian	Current	NoData	No
16246	AD	IA	77	Caucasian	Former	NoData	No
16461	AD	IB	78	Black	Former	NoData	No
16617	SCC	IA	73	Caucasian	Former	NoData	No
16989	AD	IB	62	Caucasian	Former	NoData	No
17273	Adenosquamous_carcinoma	IIB	69	Caucasian	Former	NoData	No
18472	SCC	IB	63	Caucasian	NoData	0	No

**Supplementary Table 2.** Sequence reads and coverages among 31 pairs of matched normal and tumor samples

<b>Samples</b>	<b>total_reads</b>	<b>reads_in_exons(%)</b>	<b>total_exons</b>	<b>max_exon_coverage</b>	<b>median_exon_coverage</b>	<b>mean_exon_coverage</b>	<b>exon_coverage&gt;1(%)</b>	<b>exon_coverage&gt;5(%)</b>	<b>exon_coverage&gt;10(%)</b>	<b>exon_coverage&gt;20(%)</b>
LU1516_N	219578336	40.7	212911	4951.8	87.1	122.5	91.7	79.2	76.3	71.9
LU1516_T	235386523	41.8	212911	5473.7	95.7	135.8	91.4	79.2	76.6	72.5
LU1800_N	206177925	43.2	212911	4203.3	87.4	123.6	90.1	78.9	76.2	71.7
LU1800_T	228577638	42.7	212911	4620.8	94.6	135.8	90.9	79.1	76.4	72.2
LU1991_N	123993193	40.7	212911	2980.5	49.8	69.5	86.6	76.8	72.8	66.0
LU1991_T	226880280	42.7	212911	6174.1	91.5	133.3	90.3	79.0	76.4	72.2
LU2349_N	195744241	41.2	212911	5619.4	79.4	111.1	90.5	78.7	75.8	71.1
LU2349_T	228589175	41.8	212911	6544.4	92.4	132.5	91.0	79.1	76.3	72.0
Lu-597_N	138700908	39.6	212911	3045.1	53.3	75.7	90.5	76.8	72.6	66.4
Lu-597_T	126219986	41.0	212911	2351.2	52.0	72.2	89.2	76.8	72.8	66.3
Lu-2375_N	134662387	40.0	212911	2800.7	54.9	74.7	90.4	77.1	73.2	67.2
Lu-2375_T	139540822	35.5	212911	2642.6	49.5	69.7	91.3	76.5	72.0	65.2
L383_N	52112934	30.3	212911	101.8	18.9	20.2	74.6	69.8	63.9	48.1
L383_T	41212281	32.6	212911	103.0	16.3	18.0	73.9	68.1	60.9	43.1
12586_N	114806688	47.1	212911	4960.2	87.0	121.8	86.3	77.1	74.8	70.9
12586_T	110785377	46.0	212911	4517.4	80.7	113.4	87.2	77.3	74.8	70.8
12804_N	103175252	47.4	212911	5802.9	77.9	109.6	84.9	77.1	74.6	70.2
12804_T	150336386	43.3	212911	6572.8	99.3	149.4	89.8	78.0	75.6	71.8
12820_N	149787633	42.2	212911	4651.5	95.1	143.6	89.8	77.8	75.3	71.5
12820_T	136180927	43.5	212911	5068.3	88.4	134.6	88.1	77.4	75.0	70.9
12862_N	132664861	42.3	212911	6943.0	85.3	126.4	88.0	77.2	74.8	70.5
12862_T	136937788	43.4	212911	7008.1	92.8	134.3	88.7	77.6	75.2	71.4
12924_N	144679688	42.9	212911	6965.1	95.7	139.8	89.2	77.9	75.5	71.7
12924_T	156826247	41.1	212911	6982.6	94.0	146.2	90.9	77.9	75.3	71.3
13280_N	151262251	39.8	212911	5641.4	90.8	136.7	92.2	77.9	75.2	71.2
13280_T	149680150	43.9	212911	5696.1	100.9	147.6	89.7	78.0	75.7	72.2
13299_N	108715050	45.3	212911	6674.4	77.6	109.6	85.1	76.9	74.4	70.0
13299_T	157626772	42.3	212911	8512.7	103.1	150.2	90.4	77.9	75.5	71.9
13394_N	142438352	42.4	212911	5850.0	91.5	134.5	88.7	77.8	75.4	71.5
13394_T	132207176	43.5	212911	5169.4	88.2	128.9	88.7	77.6	75.2	71.2
13542_N	129165584	42.6	212911	4679.4	87.1	123.8	89.0	77.6	75.1	71.1
13542_T	144996715	41.5	212911	5252.1	93.1	134.9	90.6	78.2	75.5	71.7
13681_N	109539790	44.6	212911	5277.3	74.9	108.5	86.4	77.0	74.5	70.1
13681_T	105113518	47.5	212911	5782.2	79.8	115.4	84.7	76.9	74.6	70.3
15145_N	161932980	43.3	212911	6274.9	107.3	163.5	90.7	77.9	75.6	72.1
15145_T	147221180	43.4	212911	6269.7	97.0	145.2	89.3	77.7	75.4	71.7
15637_N	135424114	45.3	212911	6271.9	93.9	142.1	87.0	77.1	74.9	71.1

15637_T	90917876	47.8	212911	5454.1	69.9	99.1	82.4	76.5	73.9	69.3
15822_N	159116450	41.2	212911	8682.4	95.2	149.7	90.9	77.7	75.2	71.3
15822_T	156370384	41.6	212911	8078.9	95.1	149.1	91.0	77.7	75.2	71.3
15858_N	144579585	40.0	212911	4960.0	85.2	130.2	91.2	77.5	74.8	70.5
15858_T	161714822	40.6	212911	5997.3	96.7	148.2	92.0	78.0	75.3	71.4
16246_N	154625871	43.2	212911	5435.1	95.9	153.9	89.6	77.5	75.1	71.1
16246_T	176199792	41.4	212911	6207.6	104.1	167.1	91.8	78.0	75.4	71.8
16461_N	156249834	41.0	212911	7084.2	92.9	146.7	91.5	78.0	75.3	71.3
16461_T	165728570	40.6	212911	6727.7	90.8	153.8	91.0	77.8	75.0	70.7
16617_N	156591771	38.8	212911	5108.4	86.7	137.3	92.2	77.8	75.0	70.7
16617_T	172281875	41.5	212911	6043.7	102.5	163.4	92.4	78.3	75.4	71.7
16989_N	147519898	41.3	212911	5717.3	88.5	136.4	91.4	77.7	75.0	70.9
16989_T	159438606	40.8	212911	6180.8	94.4	145.6	92.1	78.1	75.4	71.4
17273_N	141754851	40.5	212911	5802.9	85.7	128.4	91.8	77.9	75.0	70.8
17273_T	154701286	39.6	212911	6620.0	89.1	138.8	92.2	77.9	75.0	70.9
18472_N	161023552	41.9	212911	6643.1	98.9	151.0	91.3	77.8	75.2	71.5
18472_T	149271789	42.6	212911	5490.3	94.4	140.8	91.6	78.0	75.3	71.4
7285_N	142372069	44.2	212911	4895.1	98.1	143.9	89.1	77.8	75.5	71.7
7285_T	140710707	45.2	212911	6554.7	94.1	147.2	89.0	77.9	75.4	71.5
7313_N	147102824	43.4	212911	6047.5	97.6	146.1	89.9	77.9	75.4	71.6
7313_T	112229845	37.7	212911	1915.8	80.1	98.1	89.5	77.7	74.9	70.5
7945_N	143204033	42.2	212911	6908.9	91.5	136.7	89.8	77.5	75.0	70.9
7945_T	140710707	45.2	212911	6554.7	94.1	147.2	89.0	77.9	75.4	71.5
7996_N	163792908	41.0	212911	5533.2	101.4	151.9	91.6	78.2	75.7	71.9
7996_T	75776196	39.5	212911	1499.3	55.4	68.3	86.7	76.7	73.4	67.8
Mean	146497858	42.0	212911	5396.4	85.2	126.3	89.2	77.5	74.6	70.0

**Supplementary Table 3.** Summary of Somatic SNVs in 31 lung cancer samples

sample	12586	12804	12820	12862	12924	13280	13299	13394	13542	13681
<b>SNV</b>	388	48	316	11	710	496	17	171	375	242
<b>exonic</b>	197	16	148	0	367	243	2	60	168	110
<b>splicing</b>	6	0	15	0	13	7	0	6	4	3
<b>ncRNA</b>	59	12	49	0	48	40	2	17	71	42
<b>UTR5</b>	4	0	2	0	12	7	0	4	1	3
<b>UTR3</b>	5	1	11	0	10	7	0	5	3	8
<b>intronic</b>	83	12	60	4	170	141	6	57	83	53
<b>upstream</b>	3	1	2	0	8	5	0	0	5	2
<b>downstream</b>	4	0	2	0	6	3	1	2	2	2
<b>intergenic</b>	27	6	27	7	76	43	6	20	38	19
<b>frameshift del</b>	4	0	2	0	5	5	0	1	5	1
<b>frameshift ins</b>	1	0	1	0	0	0	0	0	1	3
<b>nonframeshift del</b>	0	0	0	0	0	0	0	0	0	0
<b>nonframeshift ins</b>	0	0	0	0	0	0	0	0	0	0
<b>nonsense(truncated)</b>	9	3	9	0	31	11	0	3	8	7
<b>nonsense(extension)</b>	0	0	0	0	0	0	0	1	0	0
<b>nonsynonymous</b>	134	7	106	0	260	173	2	45	110	72
<b>synonymous</b>	50	6	37	0	75	56	0	12	47	27
<b>tier1</b>	153	10	129	0	306	193	2	55	123	84
<b>tier2</b>	136	18	109	2	191	145	3	43	143	88
<b>tier3</b>	93	15	76	5	196	132	6	67	90	61
<b>tier4</b>	12	5	17	4	30	33	6	12	23	12

<b>sample</b>	15145	15637	15822	15858	16246	16461	16617	16989	17273	18472
<b>SNV</b>	143	10	35	114	524	900	227	79	26	146
<b>exonic</b>	70	0	7	47	243	424	95	38	1	60
<b>splicing</b>	2	0	0	5	12	18	6	2	0	3
<b>ncRNA</b>	18	3	9	22	87	141	37	13	9	20
<b>UTR5</b>	0	0	0	1	1	9	4	0	0	1
<b>UTR3</b>	2	0	1	2	10	14	10	0	0	0
<b>intronic</b>	26	4	6	20	108	206	46	8	6	39
<b>upstream</b>	1	0	0	1	6	10	2	0	1	0
<b>downstream</b>	0	0	0	4	5	3	1	0	0	1
<b>intergenic</b>	24	3	12	12	52	75	26	18	9	22
<b>frameshift del</b>	0	0	1	0	0	4	4	2	0	3
<b>frameshift ins</b>	0	0	0	0	2	3	0	0	0	0
<b>nonframeshift del</b>	1	0	0	0	0	0	0	0	0	0
<b>nonframeshift ins</b>	0	0	0	0	0	0	0	0	0	0
<b>nonsense(trancated)</b>	1	0	0	3	17	25	7	1	0	1
<b>nonsense(extension)</b>	0	0	0	0	0	0	0	0	0	0
<b>nonsynonymous</b>	55	0	4	37	186	313	60	30	1	42
<b>synonymous</b>	14	0	2	9	43	87	26	5	0	16
<b>tier1</b>	58	0	5	43	214	360	76	34	1	49
<b>tier2</b>	41	3	14	39	163	303	84	25	10	39
<b>tier3</b>	33	6	9	25	128	230	63	15	9	46
<b>tier4</b>	13	1	7	12	31	25	10	7	6	15



<b>sample</b>	7285	7313	7945	7996	L383	LU-1516	LU-1800	LU-1991	LU-2349	Lu-2375	Lu-597
<b>SNV</b>	578	614	43	182	15	36	14	571	120	27	23
<b>exonic</b>	275	266	10	74	1	8	1	243	47	2	4
<b>splicing</b>	12	18	0	3	0	1	0	13	2	0	0
<b>ncRNA</b>	87	98	8	42	0	3	1	82	9	7	1
<b>UTR5</b>	4	8	0	2	0	2	0	4	5	0	0
<b>UTR3</b>	6	17	1	1	0	3	0	11	2	1	2
<b>intronic</b>	142	138	11	36	9	11	5	153	31	7	2
<b>upstream</b>	3	7	1	6	0	0	0	3	1	0	0
<b>downstream</b>	5	4	1	2	1	0	0	7	2	1	0
<b>intergenic</b>	44	58	11	16	4	8	7	55	21	9	14
<b>frameshift del</b>	7	3	1	0	0	0	0	2	1	0	1
<b>frameshift ins</b>	0	2	0	0	0	0	0	1	0	1	0
<b>nonframeshift del</b>	1	0	0	0	0	0	0	0	0	0	0
<b>nonframeshift ins</b>	0	0	0	0	0	0	0	0	0	0	0
<b>nonsense(trancated)</b>	16	18	0	3	0	1	0	17	3	0	0
<b>nonsense(extension)</b>	0	0	0	0	0	0	0	0	0	0	0
<b>nonsynonymous</b>	188	178	4	54	1	6	1	166	32	1	3
<b>synonymous</b>	68	73	5	19	0	2	0	63	12	0	0
<b>tier1</b>	217	214	5	59	1	8	1	197	37	1	4
<b>tier2</b>	200	222	15	76	2	8	1	192	33	12	3
<b>tier3</b>	151	173	11	40	11	15	6	172	38	11	8
<b>tier4</b>	22	23	12	10	1	6	6	23	14	3	8

**Supplementary Table 4.** All somatic SNVs in 31 lung cancer genomes.

sample	chr	start	end	ref	var	geno_N	geno_T	region	gene	function	seq_change
12586	1	1441214	1441214	G	A	G	R	intronic	ATAD3A	NA	NA
12586	1	11213991	11213991	G	A	G	R	exonic	MTOR	silent	NM_004958:p.L868L
12586	1	19442988	19442988	G	C	G	S	intronic	KIAA0090	NA	NA
12586	1	27812057	27812057	G	A	G	R	exonic	FGR	silent	NM_001042729:p.Y515Y
12586	1	52684816	52684816	G	A	G	R	intronic	ZCCHC11	NA	NA
12586	1	57093209	57093209	C	A	C	M	exonic	C8A	missense	NM_000562:p.P16H
12586	1	66485892	66485892	C	A	C	M	exonic	PDE4B	missense	NM_001037340:p.A133E
12586	1	68677832	68677832	C	T	C	Y	splicing	RPE65	missense	NM_000329:p.S242N
12586	1	70030306	70030306	T	C	T	Y	intronic	LRRC7	NA	NA
12586	1	70266524	70266524	-	T	G	*/+T	exonic	LRRC7	FS_ins	NM_020794:p.G588fs
12586	1	70266526	70266526	A	T	A	W	exonic	LRRC7	nonsense	NM_020794:p.K589X
12586	1	70291385	70291385	G	A	G	R	exonic	LRRC7	missense	NM_020794:p.R1362Q
12586	1	70291386	70291386	G	T	G	K	exonic	LRRC7	silent	NM_020794:p.R1362R
12586	1	80521790	80521790	G	A	G	R	intergenic	NA	NA	NA
12586	1	86024657	86024657	A	T	A	W	exonic	COL24A1	missense	NM_152890:p.L1343M
12586	1	90172413	90172413	G	T	G	K	exonic	LRRC8D	missense	NM_018103:p.V400F
12586	1	99534948	99534948	C	A	C	M	exonic	LPPR4	missense	NM_014839:p.P159T
12586	1	114255536	114255536	G	T	G	K	exonic	DCLRE1B	missense	NM_022836:p.D267Y
12586	1	114323781	114323781	G	T	G	K	intronic	OLFML3	NA	NA
12586	1	143540153	143540153	T	G	T	K	UTR3	NBPF9	NA	NA
12586	1	147305549	147305549	A	T	A	W	intergenic	NA	NA	NA
12586	1	150938386	150938386	G	T	G	K	UTR3	LCE2A	NA	NA
12586	1	156006812	156006812	C	G	C	S	intronic	FCRL2	NA	NA
12586	1	156783775	156783775	G	T	G	K	exonic	OR6Y1	missense	NM_001005189:p.H249N
12586	1	157013366	157013366	T	C	T	Y	exonic	OR6N2	missense	NM_001005278:p.I228M
12586	1	167852877	167852877	G	T	G	K	intronic	SELP	NA	NA
12586	1	173047535	173047535	A	T	A	W	intronic	RABGAP1L	NA	NA
12586	1	174792283	174792283	T	A	T	W	exonic	PAPPA2	missense	NM_021936:p.F68I
12586	1	199288428	199288428	G	T	G	K	intronic	CACNA15	NA	NA
12586	1	200994059	200994059	C	A	C	M	intronic	KDM5B	NA	NA
12586	1	203206420	203206426	GATGGG - A	-	G	*/- GATGGGA	exonic	NFASC	FS_del	NM_001005388:p.353_355del
12586	1	203547591	203547591	C	A	C	M	intronic	NUAK2	NA	NA
12586	1	214605097	214605097	T	C	T	Y	intronic	USH2A	NA	NA
12586	1	245902232	245902232	C	A	C	M	exonic	OR13G1	silent	NM_001005487:p.V245V
12586	1	246071401	246071401	A	T	A	W	exonic	OR11L1	missense	NM_001001959:p.C141S
12586	1	246195900	246195900	T	A	T	W	exonic	OR2AK2	missense	NM_001004491:p.L215H
12586	1	246329252	246329252	T	A	T	W	intronic	OR2L13	NA	NA
12586	1	246330250	246330250	C	A	C	M	UTR3	OR2L13	NA	NA
12586	1	246635837	246635837	T	A	T	W	upstream	OR2T1	NA	NA
12586	1	246636879	246636879	G	T	G	K	exonic	OR2T1	missense	NM_030904:p.D321Y
12586	1	246752378	246752378	C	A	C	M	exonic	OR2G6	missense	NM_001013355:p.Q270K
12586	2	36040	36040	C	A	C	M	exonic	FAM110C	missense	NM_001077710:p.D116Y
12586	2	15437153	15437153	G	A	G	R	intronic	NBAS	NA	NA
12586	2	29308733	29308733	C	A	G	R	exonic	ALK	missense	NM_004304:p.P858L
12586	2	37141282	37141282	C	A	C	M	exonic	HEATR5B	missense	NM_019024:p.G599C
12586	2	38850795	38850795	G	A	G	R	intergenic	NA	NA	NA
12586	2	73450765	73450765	C	T	C	Y	intergenic	NA	NA	NA
12586	2	79217695	79217695	C	A	C	M	ncRNA	REG1P	NA	NA
12586	2	86560909	86560909	A	T	A	W	exonic	KDM3A	missense	NM_018433:p.S809C
12586	2	90963759	90963759	A	T	A	W	intergenic	NA	NA	NA
12586	2	106451149	106451149	G	T	G	K	exonic	RGPD3	silent	NM_001144013:p.R10R
12586	2	122202349	122202349	C	A	C	M	exonic	MKI67IP	missense	NM_032390:p.K226N
12586	2	131236210	131236210	A	C	A	M	exonic	FAM123C	missense	NM_001105195:p.E32A
12586	2	131917457	131917457	C	A	C	M	ncRNA	LOC401010	NA	NA
12586	2	131917458	131917458	C	A	C	M	ncRNA	LOC401010	NA	NA
12586	2	132791935	132791935	C	A	C	M	intergenic	NA	NA	NA
12586	2	141190709	141190709	C	A	C	M	intronic	LRP1B	NA	NA
12586	2	151922470	151922470	C	T	C	Y	exonic	TNFAIP6	missense	NM_007115:p.T15I
12586	2	159913748	159913748	A	G	A	R	intronic	BAZ2B	NA	NA
12586	2	165661205	165661205	T	C	T	Y	intronic	SCN3A	NA	NA
12586	2	167810391	167810391	G	A	G	R	exonic	XIRP2	missense	NM_152381:p.G1415S
12586	2	170079381	170079381	A	G	A	R	exonic	KBTBD10	missense	NM_006063:p.R388G
12586	2	210302827	210302827	C	T	C	Y	exonic	MAP2	missense	NM_002374:p.R1722C
12586	2	215591025	215591025	C	A	C	M	exonic	ABCA12	missense	NM_173076:p.R578S
12586	2	233547856	233547856	C	A	C	M	UTR5	NGEF	NA	NA
12586	3	41952493	41952493	C	G	C	S	intronic	ULK4	NA	NA
12586	3	41952494	41952494	T	A	T	W	intronic	ULK4	NA	NA
12586	3	42274757	42274757	G	T	G	K	intronic	CCK	NA	NA
12586	3	45917521	45917521	G	A	G	R	exonic	CCR9	silent	NM_031200:p.V79V
12586	3	46282127	46282127	G	A	G	R	exonic	CCR3	nonsense	NM_001164680:p.W176X
12586	3	58487505	58487505	T	C	T	Y	intronic	ACOX2	NA	NA
12586	3	68865067	68865067	C	A	C	M	intronic	FAM19A4	NA	NA
12586	3	75869914	75869914	C	T	C	Y	exonic	ZNF717	missense	NM_001128223:p.R517H
12586	3	102928898	102928898	A	C	A	M	intronic	CEP97	NA	NA
12586	3	115553043	115553043	C	A	C	M	exonic	ZBTB20	missense	NM_001164346:p.R118L

12586	3	129999469	129999469	A	G	A	R	intronic	RAB7A	NA	NA
12586	3	130470141	130470141	G	T	G	K	exonic	COPG	nonsense	NM_016128:p.E588X
12586	3	135042829	135042829	G	C	G	S	exonic	RAB6B	nonsense	NM_016577:p.Y93X
12586	3	141884546	141884546	C	A	C	M	exonic	TRIM42	silent	NM_152616:p.I298I
12586	3	152127330	152127330	C	A	C	M	exonic	CLRN1	stoploss SN	NM_052995:p.X121L
12586	3	197573538	197573538	A	T	A	W	intronic	UBXN7	NA	NA
12586	4	22024454	22024454	C	T	C	Y	exonic	GPR125	missense	NM_145290:p.D631N
12586	4	47545094	47545094	A	G	A	R	exonic	NFXL1	missense	NM_152995:p.F860S
12586	4	48794490	48794490	T	A	T	W	intergenic	NA	NA	NA
12586	4	70299996	70299996	C	T	C	Y	intergenic	NA	NA	NA
12586	4	71290299	71290299	G	T	G	K	UTR3	SMR3B	NA	NA
12586	4	72423821	72423821	G	T	G	K	UTR5	SLC4A4	NA	NA
12586	4	84078566	84078566	T	C	T	Y	intronic	LIN54	NA	NA
12586	4	104279130	104279130	C	T	C	Y	intronic	CENPE	NA	NA
12586	4	110078433	110078433	G	T	G	K	exonic	COL25A1	missense	NM_032518:p.P230T
12586	4	112086285	112086285	G	T	G	K	intergenic	NA	NA	NA
12586	4	119194765	119194765	A	T	A	W	exonic	NDST3	silent	NM_004784:p.V84V
12586	4	126589539	126589539	G	A	G	R	exonic	FAT4	missense	NM_024582:p.E2640K
12586	4	162728253	162728253	T	A	T	W	intronic	FSTL5	NA	NA
12586	4	162728254	162728254	C	A	C	M	intronic	FSTL5	NA	NA
12586	4	189305106	189305106	G	C	G	S	exonic	TRIML1	silent	NM_178556:p.L331L
12586	5	11465146	11465146	C	A	C	M	splicing	CTNND2	NA	NA
12586	5	13882800	13882800	G	C	G	S	exonic	DNAH5	missense	NM_001369:p.A2088G
12586	5	23558418	23558418	A	G	A	R	intronic	PRDM9	NA	NA
12586	5	23558420	23558420	G	C	G	S	intronic	PRDM9	NA	NA
12586	5	24571068	24571068	T	A	T	W	exonic	CDH10	missense	NM_006727:p.M242L
12586	5	37161125	37161125	G	A	G	R	exonic	C5orf42	missense	NM_023073:p.P2925L
12586	5	43623401	43623401	C	A	C	M	intergenic	NA	NA	NA
12586	5	50607174	50607174	G	T	G	K	intergenic	NA	NA	NA
12586	5	76206962	76206962	G	T	G	K	exonic	S100Z	missense	NM_130772:p.A8S
12586	5	84331529	84331529	T	C	T	Y	intergenic	NA	NA	NA
12586	5	84331531	84331531	G	T	G	K	intergenic	NA	NA	NA
12586	5	84796042	84796042	T	A	T	W	intergenic	NA	NA	NA
12586	5	132237551	132237551	C	A	C	M	exonic	LEAP2	missense	NM_052971:p.S23Y
12586	5	137616963	137616963	G	A	G	R	splicing	GFRA3	missense	NM_001496:p.T342M
12586	5	138685464	138685464	G	T	G	K	ncRNA	MATR3	NA	NA
12586	5	140690593	140690593	G	T	G	K	exonic	PCDHGA1	missense	NM_031993:p.G53V
12586	5	140692131	140692131	G	-	C	*/-G	exonic	PCDHGA1	FS_del	NM_031993:p.A566fs
12586	5	141317097	141317097	G	T	G	K	exonic	PCDH12	silent	NM_016580:p.T168T
12586	5	149496807	149496807	G	A	G	R	UTR5	PDGFRB	NA	NA
12586	5	149736141	149736141	G	T	G	K	intronic	TCOF1	NA	NA
12586	6	24671670	24671670	C	A	C	M	exonic	KIAA0319	silent	NM_014809:p.L829L
12586	6	29177065	29177065	C	G	C	S	intergenic	NA	NA	NA
12586	6	29339482	29339482	A	T	A	W	intergenic	NA	NA	NA
12586	6	43146243	43146243	C	T	C	Y	intronic	KLC4	NA	NA
12586	6	54174938	54174938	C	A	C	M	exonic	C6orf142	missense	NM_138569:p.P354H
12586	6	58554759	58554759	C	A	C	M	intergenic	NA	NA	NA
12586	6	68700791	68700791	C	T	C	Y	intergenic	NA	NA	NA
12586	6	69405498	69405498	C	A	C	M	exonic	BAI3	nonsense	NM_001704:p.Y70X
12586	6	70105948	70105948	C	G	C	S	exonic	BAI3	missense	NM_001704:p.A1097G
12586	6	76769378	76769378	T	A	T	W	exonic	IMPG1	missense	NM_001563:p.D423V
12586	6	80720236	80720236	C	-	T	*/-C	intergenic	NA	NA	NA
12586	6	80720465	80720465	G	A	G	R	intergenic	NA	NA	NA
12586	6	97160532	97160532	G	T	G	K	exonic	FHL5	missense	NM_001170807:p.W123L
12586	6	101161289	101161289	C	A	C	M	intronic	ASCC3	NA	NA
12586	6	101161593	101161593	C	T	C	Y	exonic	ASCC3	silent	NM_006828:p.R1626R
12586	6	102372975	102372975	C	A	C	M	exonic	GRIK2	missense	NM_021956:p.T414K
12586	6	102444337	102444337	G	A	G	R	exonic	GRIK2	missense	NM_021956:p.V552I
12586	6	117757260	117757260	C	A	C	M	exonic	ROS1	missense	NM_002944:p.G1764V
12586	6	117757261	117757261	C	A	C	M	exonic	ROS1	missense	NM_002944:p.G1764W
12586	6	121601995	121601995	G	A	G	R	exonic	C6orf170	silent	NM_152730:p.L762L
12586	6	124718071	124718071	C	A	C	M	intronic	NKAIN2	NA	NA
12586	6	149959915	149959915	A	T	A	W	exonic	KATNA1	NA	NA
12586	6	160942049	160942049	C	G	C	S	exonic	LPA	missense	NM_005577:p.S1006T
12586	7	15707689	15707689	A	G	A	R	intergenic	NA	NA	NA
12586	7	19706493	19706493	C	G	C	S	intronic	TWISTNB	NA	NA
12586	7	36160955	36160955	G	A	G	R	exonic	EEPDI	missense	NM_030636:p.R166H
12586	7	50654330	50654330	C	A	C	M	intronic	GRB10	NA	NA
12586	7	55674026	55674026	G	T	G	K	intergenic	NA	NA	NA
12586	7	63113191	63113191	A	T	A	W	intergenic	NA	NA	NA
12586	7	73937346	73937346	G	A	G	R	UTR3	STAG3L2	NA	NA
12586	7	81212178	81212178	C	A	C	M	intronic	HGF	NA	NA
12586	7	81212179	81212179	C	A	C	M	intronic	HGF	NA	NA
12586	7	86380261	86380261	G	A	G	R	exonic	KIAA1324L	silent	NM_001142749:p.L643L
12586	7	91490262	91490262	A	G	A	R	intronic	AKAP9	NA	NA
12586	7	94834591	94834591	C	A	C	M	intronic	PON3	NA	NA
12586	7	95495379	95495379	C	A	C	M	intronic	DYNC111	NA	NA
12586	7	97829706	97829706	T	C	T	Y	intronic	BAIAP2L1	NA	NA
12586	7	100082072	100082072	C	A	C	M	intronic	ACTL6B	NA	NA

12586	7	112248979	112248979	T	C	T	Y	UTR3	C7orf60	NA	NA
12586	7	136350555	136350555	C	A	C	M	exonic	CHRM2	silent	NM_001006629:p.R135R
12586	7	136351543	136351543	C	G	C	S	exonic	CHRM2	missense	NM_001006629:p.A464G
12586	7	141073701	141073701	T	A	T	W	exonic	WEE2	silent	NM_001105558:p.T507T
12586	7	141125536	141125536	G	T	G	K	exonic	TAS2R4	missense	NM_016944:p.G260V
12586	7	142149020	142149020	C	G	C	S	intergenic	NA	NA	NA
12586	7	142851555	142851555	G	T	G	K	exonic	TAS2R60	silent	NM_177437:p.L296L
12586	7	143437716	143437716	C	A	C	M	exonic	OR2A2	silent	NM_001005480:p.L36L
12586	7	148482359	148482359	C	-	T	*/-C	exonic	ZNF398	FS_del	NM_170686:p.I138fs
12586	7	150341383	150341383	G	T	G	K	exonic	NOS3	nonsense	NM_000603:p.E1080X
12586	8	11644966	11644966	C	A	C	M	intronic	GATA4	NA	NA
12586	8	24831985	24831985	T	C	T	Y	exonic	NEFM	silent	NM_005382:p.T904T
12586	8	41673173	41673173	G	T	G	K	exonic	ANK1	missense	NM_000037:p.T942K
12586	8	50816121	50816121	C	T	C	Y	intergenic	NA	NA	NA
12586	8	51628356	51628356	A	G	A	R	intronic	SNTG1	NA	NA
12586	8	69715205	69715205	G	C	G	S	exonic	C8orf34	silent	NM_052958:p.L382L
12586	8	80841501	80841501	C	A	C	M	exonic	HEY1	missense	NM_001040708:p.A95S
12586	8	82522116	82522116	T	C	T	Y	exonic	PMP2	missense	NM_002677:p.M21V
12586	8	87311402	87311402	A	G	A	R	exonic	SLC7A13	missense	NM_138817:p.F74S
12586	8	87629603	87629603	C	T	C	Y	intronic	CPNE3	NA	NA
12586	8	98934927	98934927	A	T	A	W	downstream	LAPTM4B	NA	NA
12586	8	100315873	100315873	C	T	C	Y	intronic	VPS13B	NA	NA
12586	8	111637667	111637667	G	C	G	S	intergenic	NA	NA	NA
12586	8	113346981	113346981	C	A	C	M	exonic	CSMD3	missense	NM_198123:p.D3175Y
12586	8	113383422	113383422	C	T	C	Y	intronic	CSMD3	NA	NA
12586	8	134093479	134093479	A	G	A	R	intronic	TG	NA	NA
12586	9	15045608	15045608	G	T	G	K	intergenic	NA	NA	NA
12586	9	33603894	33603894	G	A	G	R	intergenic	NA	NA	NA
12586	9	37720976	37720976	C	A	C	M	intronic	FRMPD1	NA	NA
12586	9	67916061	67916061	G	A	G	R	intergenic	NA	NA	NA
12586	9	77207233	77207233	C	A	C	M	intergenic	NA	NA	NA
12586	9	92646131	92646131	A	G	A	R	exonic	SYK	missense	NM_001135052:p.S44G
12586	9	102086427	102086427	C	T	C	Y	exonic	INVS	nonsense	NM_183245:p.R597X
12586	9	106420280	106420280	C	A	C	M	exonic	OR13C9	silent	NM_001001956:p.L9L
12586	9	118810251	118810251	C	A	C	M	exonic	ASTN2	missense	NM_014010:p.R460M
12586	9	119016542	119016542	C	T	C	Y	exonic	ASTN2	missense	NM_014010:p.E311K
12586	9	134972308	134972308	C	A	C	M	exonic	RALGDS	missense	NM_006266:p.W466C
12586	9	135370393	135370393	G	A	G	R	intronic	TMEM8C	NA	NA
12586	10	6100167	6100167	G	C	G	S	intronic	IL2RA	NA	NA
12586	10	15295721	15295721	C	A	C	M	exonic	FAM171A1	silent	NM_001010924:p.G624G
12586	10	15295965	15295965	C	A	C	M	exonic	FAM171A1	missense	NM_001010924:p.R543L
12586	10	26495058	26495058	G	T	G	K	exonic	MYO3A	missense	NM_017433:p.C1019F
12586	10	26548162	26548162	G	C	G	S	exonic	GAD2	missense	NM_001134366:p.E157D
12586	10	32137597	32137597	G	A	G	R	exonic	ARHGAP12	silent	NM_018287:p.F784F
12586	10	41710390	41710390	G	A	G	R	intergenic	NA	NA	NA
12586	10	73181396	73181396	A	T	A	W	intronic	C10orf54	NA	NA
12586	10	85958427	85958427	C	T	C	Y	intronic	CDHR1	NA	NA
12586	10	86141584	86141584	C	T	C	Y	intronic	FAM190B	NA	NA
12586	10	91133979	91133979	C	A	C	M	exonic	IFIT1B	missense	NM_001010987:p.P310H
12586	10	100232503	100232503	G	A	G	R	exonic	HPSE2	missense	NM_001166246:p.T498I
12586	10	102247416	102247416	C	G	C	S	exonic	SEC31B	missense	NM_015490:p.C663S
12586	10	115345404	115345404	G	T	G	K	exonic	NRAP	silent	NM_006175:p.R1467R
12586	10	134413041	134413041	G	T	G	K	exonic	INPP5A	missense	NM_005539:p.V255F
12586	10	134499709	134499709	G	A	G	R	exonic	C10orf92	silent	NM_001200049:p.S492S
12586	11	5418896	5418896	C	G	C	S	exonic	OR51I1	missense	NM_001005288:p.R142P
12586	11	5558910	5558910	T	A	T	W	exonic	OR52B6	missense	NM_001005162:p.H76Q
12586	11	6595516	6595516	C	A	C	M	exonic	TPP1	silent	NM_000391:p.V99V
12586	11	22248457	22248457	G	T	G	K	exonic	ANOS	missense	NM_213599:p.R641L
12586	11	34068310	34068310	G	C	G	S	exonic	CAPRIN1	missense	NM_203364:p.L434F
12586	11	35946241	35946241	G	T	G	K	intronic	LDLRAD3	NA	NA
12586	11	44051592	44051592	A	G	A	R	exonic	ACCS	missense	NM_001127219:p.Q123R
12586	11	46774905	46774905	G	T	G	K	intronic	CKAP5	NA	NA
12586	11	48606235	48606235	C	A	C	M	intergenic	NA	NA	NA
12586	11	54793404	54793404	C	A	C	M	intronic	TRIM48	NA	NA
12586	11	55000297	55000297	G	A	G	R	intergenic	NA	NA	NA
12586	11	57715490	57715490	C	A	C	M	UTR3	OR9Q2	NA	NA
12586	11	57751914	57751914	G	A	G	R	downstream	OR10Q1	NA	NA
12586	11	60391601	60391601	G	T	G	K	UTR5	ZP1	NA	NA
12586	11	60848077	60848077	T	C	T	Y	exonic	DDB1	missense	NM_001923:p.M291V
12586	11	62519925	62519925	G	T	G	K	intronic	SLC22A8	NA	NA
12586	11	64253033	64253033	C	T	C	Y	exonic	RASGRP2	missense	NM_153819:p.R550H
12586	11	64253034	64253034	G	T	G	K	exonic	RASGRP2	missense	NM_153819:p.R550S
12586	11	65374218	65374218	C	A	C	M	exonic	SNX32	missense	NM_152760:p.P92T
12586	11	65375084	65375084	C	A	C	M	intronic	SNX32	NA	NA
12586	11	65949142	65949142	C	A	C	M	exonic	NPAS4	silent	NM_178864:p.G735G
12586	11	69957254	69957254	G	T	G	K	intronic	CTTN	NA	NA
12586	11	75846878	75846878	G	A	G	R	exonic	C11orf30	missense	NM_020193:p.M83I
12586	11	107711791	107711791	G	T	G	K	exonic	ATM	missense	NM_000051:p.D2721Y
12586	11	109630045	109630045	C	A	C	M	splicing	RDX	NA	NA

12586	11	120934795	120934795	G	T	G	K	intronic	SORL1	NA	NA
12586	11	133542997	133542997	C	T	C	Y	intronic	NCAPD3	NA	NA
12586	12	3635880	3635880	C	A	C	M	intronic	EFCAB4B	NA	NA
12586	12	4724874	4724874	T	A	T	W	exonic	GALNT8	silent	NM_017417:p.A293A
12586	12	7531663	7531663	T	A	T	W	exonic	CD163	missense	NM_004244:p.S570C
12586	12	15548056	15548056	G	T	G	K	intronic	PTPRO	NA	NA
12586	12	25289552	25289552	C	A	C	M	exonic	KRAS	missense	NM_033360:p.G12C
12586	12	40750083	40750083	C	A	C	M	intergenic	NA	NA	NA
12586	12	50568975	50568975	G	T	G	K	intronic	ANKRD33	NA	NA
12586	12	53928128	53928128	G	A	G	R	exonic	OR6C74	missense	NM_001005490:p.E264K
12586	12	54840051	54840051	T	G	T	K	exonic	MYL6	missense	NM_079423:p.F67L
12586	12	56252681	56252681	G	T	G	K	exonic	KIF5A	nonsense	NM_004984:p.G541X
12586	12	62503022	62503022	G	T	G	K	intergenic	NA	NA	NA
12586	12	67880218	67880218	C	T	C	Y	intergenic	NA	NA	NA
12586	12	68351691	68351691	T	C	T	Y	intronic	BEST3	NA	NA
12586	12	82069899	82069899	G	T	G	K	intergenic	NA	NA	NA
12586	12	88671103	88671103	C	A	C	M	intergenic	NA	NA	NA
12586	12	95575969	95575969	G	T	G	K	intergenic	NA	NA	NA
12586	12	106678387	106678387	T	C	T	Y	intronic	PRDM4	NA	NA
12586	12	107455910	107455910	C	G	C	S	intronic	SART3	NA	NA
12586	12	112294824	112294824	C	T	C	Y	intronic	PLBD2	NA	NA
12586	12	116210333	116210333	G	T	G	K	exonic	NOS1	missense	NM_000620:p.D352E
12586	12	125915836	125915836	G	T	G	K	intergenic	NA	NA	NA
12586	12	128066155	128066155	C	A	C	M	intergenic	NA	NA	NA
12586	12	129851744	129851744	G	A	G	R	exonic	STX2	silent	NM_001980:p.I194I
12586	13	35642692	35642692	C	T	C	Y	exonic	C13orf38-SO	silent	NM_017826:p.T411T
12586	13	40415235	40415235	T	A	T	W	exonic	ELF1	missense	NM_001145353:p.D196V
12586	13	47461017	47461017	C	T	C	Y	splicing	SUCLA2	NA	NA
12586	13	51381494	51381494	G	A	G	R	intergenic	NA	NA	NA
12586	13	51432254	51432254	G	A	G	R	intronic	ATP7B	NA	NA
12586	13	74710531	74710531	C	A	C	M	ncRNA	CTAGE11P	NA	NA
12586	13	74710532	74710532	C	G	C	S	ncRNA	CTAGE11P	NA	NA
12586	14	19366030	19366030	G	T	G	K	exonic	OR4N2	missense	NM_001004723:p.V195L
12586	14	19414308	19414308	G	T	G	K	exonic	OR4K2	missense	NM_001005501:p.L14F
12586	14	20596209	20596209	C	A	C	M	exonic	RNASE8	silent	NM_138331:p.T106T
12586	14	22935332	22935332	C	A	C	M	splicing	MYH6	NA	NA
12586	14	22944464	22944464	G	T	G	K	intronic	MYH6	NA	NA
12586	14	23594250	23594250	T	A	T	W	intronic	LRRC16B	NA	NA
12586	14	51804820	51804820	G	T	G	K	exonic	PTGDR	missense	NM_000953:p.G180C
12586	14	64329799	64329799	G	A	G	R	exonic	SPTB	missense	NM_001024858:p.R779W
12586	14	66885451	66885451	T	A	T	W	intronic	ATP6V1D	NA	NA
12586	14	67948032	67948032	G	T	G	K	intronic	RAD51L1	NA	NA
12586	14	85158014	85158014	C	G	C	S	exonic	FLRT2	missense	NM_013231:p.L135V
12586	15	22783117	22783117	C	T	C	Y	ncRNA	PAR5	NA	NA
12586	15	22861245	22861245	C	T	C	Y	upstream	SNORD116-2	NA	NA
12586	15	23014929	23014929	G	T	G	K	ncRNA	SNORD115-2	NA	NA
12586	15	28896148	28896148	G	T	G	K	intergenic	NA	NA	NA
12586	15	28962511	28962511	G	T	G	K	intergenic	NA	NA	NA
12586	15	32461153	32461153	C	A	C	M	ncRNA	GOLGA8A	NA	NA
12586	15	41780829	41780829	C	A	C	M	intergenic	NA	NA	NA
12586	15	46821518	46821518	C	T	C	Y	exonic	CEP152	missense	NM_001194998:p.E1303K
12586	15	70478078	70478078	G	T	G	K	exonic	TMEM202	missense	NM_001080462:p.A38S
12586	15	89093827	89093827	C	T	C	Y	exonic	BLM	missense	NM_000057:p.P109S
12586	15	89093828	89093828	C	T	C	Y	exonic	BLM	missense	NM_000057:p.P109L
12586	15	98150099	98150099	T	A	T	W	ncRNA	C15orf51	NA	NA
12586	16	21005814	21005814	T	G	T	K	exonic	DNAH3	missense	NM_017539:p.K912Q
12586	16	33287537	33287537	C	A	C	M	intergenic	NA	NA	NA
12586	16	49343313	49343313	G	T	G	K	exonic	CYLD	missense	NM_001042412:p.D268Y
12586	16	71549761	71549761	G	A	G	R	exonic	ZFX3	silent	NM_006885:p.A595A
12586	16	83658349	83658349	G	-	T	*/-G	exonic	KIAA0513	FS_del	NM_014732:p.M57fs
12586	17	1317932	1317932	G	A	G	R	exonic	MYO1C	silent	NM_033375:p.S938S
12586	17	7475968	7475968	G	T	G	K	exonic	SHBG	silent	NM_001040:p.L254L
12586	17	7693679	7693679	G	T	G	K	exonic	KDM6B	missense	NM_001080424:p.E1116D
12586	17	10102994	10102994	A	G	A	R	intergenic	NA	NA	NA
12586	17	10372948	10372948	C	A	C	M	exonic	MYH2	missense	NM_017534:p.E1176D
12586	17	10387772	10387772	T	A	T	W	exonic	MYH2	missense	NM_017534:p.N241I
12586	17	16663876	16663876	C	T	C	Y	intergenic	NA	NA	NA
12586	17	17047058	17047058	A	T	A	W	exonic	PLD6	silent	NM_178836:p.T169T
12586	17	21146187	21146187	C	G	C	S	intronic	MAP2K3	NA	NA
12586	17	21655164	21655164	C	A	C	M	intergenic	NA	NA	NA
12586	17	23898551	23898551	C	A	C	M	exonic	UNC119	missense	NM_005148:p.S205I
12586	17	44934502	44934502	C	A	C	M	exonic	NGFR	missense	NM_002507:p.L49M
12586	17	45912406	45912406	G	T	G	K	exonic	RSAD1	missense	NM_018346:p.G146W
12586	17	53704288	53704288	T	A	T	W	intronic	MPO	NA	NA
12586	17	57663561	57663561	C	A	C	M	intergenic	NA	NA	NA
12586	17	64596026	64596026	C	A	C	M	intronic	ABCA6	NA	NA
12586	17	77604511	77604511	G	T	G	K	exonic	GPS1	missense	NM_212492:p.V76L
12586	18	12018944	12018944	G	T	G	K	exonic	IMPA2	missense	NM_014214:p.A235S
12586	18	21866382	21866382	C	A	C	M	exonic	SS18	missense	NM_005637:p.Q372H

12586	18	22039831	22039831	G	T	G	K	intergenic	NA	NA	NA
12586	18	29792266	29792266	G	A	G	R	exonic	NOL4	missense	NM_001198548:p.H391Y
12586	18	32630865	32630865	C	A	C	M	exonic	C18orf10	missense	NM_015476:p.Q268H
12586	18	72712825	72712825	G	T	G	K	intronic	ZNF236	NA	NA
12586	19	8784914	8784914	A	G	A	R	intronic	ZNF558	NA	NA
12586	19	11408025	11408025	C	G	C	S	intronic	PRKCSH	NA	NA
12586	19	21208125	21208125	G	T	G	K	intergenic	NA	NA	NA
12586	19	22573912	22573912	A	T	A	W	ncRNA	LOC440518	NA	NA
12586	19	22661281	22661281	T	C	T	Y	intergenic	NA	NA	NA
12586	19	22674215	22674215	G	T	G	K	intergenic	NA	NA	NA
12586	19	23466792	23466792	G	T	G	K	intergenic	NA	NA	NA
12586	19	23571610	23571610	C	A	C	M	intergenic	NA	NA	NA
12586	19	40738011	40738011	G	A	G	R	exonic	ATP4A	silent	NM_000704:p.I741I
12586	19	42059829	42059829	G	T	G	K	exonic	ZNF345	missense	NM_003419:p.G86V
12586	19	44558239	44558239	G	T	G	K	exonic	SAMD4B	silent	NM_018028:p.R259R
12586	19	45402167	45402167	G	C	G	S	intronic	MAP3K10	NA	NA
12586	19	47756673	47756673	G	T	G	K	intergenic	NA	NA	NA
12586	19	48399978	48399978	C	A	C	M	exonic	PSG4	missense	NM_213633:p.Q110H
12586	19	49625493	49625493	A	T	A	W	exonic	ZNF229	missense	NM_014518:p.C435S
12586	19	49625494	49625494	G	T	G	K	exonic	ZNF229	silent	NM_014518:p.T434T
12586	19	58998941	58998941	G	T	G	K	intronic	NLRP12	NA	NA
12586	19	63550504	63550504	A	T	A	W	intronic	A1BG	NA	NA
12586	19	63760060	63760060	C	A	C	M	intronic	UBE2M	NA	NA
12586	20	1856563	1856563	C	A	C	M	intronic	SIRPA	NA	NA
12586	20	1856564	1856564	C	A	C	M	intronic	SIRPA	NA	NA
12586	20	5791950	5791950	C	T	C	Y	exonic	C20orf196	silent	NM_152504:p.N153N
12586	20	21671578	21671578	C	A	C	M	intergenic	NA	NA	NA
12586	20	23369096	23369096	C	A	C	M	exonic	CSTL1	silent	NM_138283:p.V64V
12586	20	25200042	25200042	A	T	A	W	exonic	PYGB	missense	NM_002862:p.T150S
12586	20	29336794	29336794	C	A	C	M	intergenic	NA	NA	NA
12586	20	35097307	35097307	G	A	G	R	exonic	RBL1	missense	NM_183404:p.P641L
12586	20	42574804	42574804	G	A	G	R	intronic	SERINC3	NA	NA
12586	20	43376511	43376511	T	C	T	Y	exonic	RBPJL	silent	NM_014276:p.D304D
12586	20	48629202	48629202	G	T	G	K	exonic	PTPN1	missense	NM_002827:p.D265Y
12586	20	51305849	51305849	G	T	G	K	exonic	TSHZ2	missense	NM_173485:p.R815S
12586	20	55574055	55574055	C	T	C	Y	exonic	PCK1	missense	NM_002591:p.T553M
12586	20	60932291	60932291	C	T	C	Y	intronic	COL9A3	NA	NA
12586	20	61516957	61516957	A	G	A	R	intronic	KCNQ2	NA	NA
12586	21	29875609	29875609	G	C	G	S	intronic	GRIK1	NA	NA
12586	22	14667549	14667549	C	T	C	Y	exonic	POTEH	missense	NM_001136213:p.G113S
12586	22	15442012	15442012	C	A	C	M	intergenic	NA	NA	NA
12586	22	15719083	15719083	C	A	C	M	intergenic	NA	NA	NA
12586	22	24045884	24045884	A	T	A	W	ncRNA	IGLL3P	NA	NA
12586	22	30536572	30536572	G	A	G	R	exonic	DEPDC5	missense	NM_001007188:p.A464T
12586	22	40940917	40940917	C	A	C	M	exonic	TCF20	silent	NM_005650:p.G113G
12586	22	48742588	48742588	A	G	A	R	intronic	PIM3	NA	NA
12586	X	2955389	2955389	C	A	C	M	exonic	ARSH	missense	NM_001011719:p.R358S
12586	X	3249667	3249667	T	A	T	W	exonic	MXRA5	silent	NM_015419:p.P1353P
12586	X	10495154	10495154	C	A	C	M	exonic	MID1	missense	NM_001193280:p.C145F
12586	X	15522984	15522984	G	C	G	S	exonic	ACE2	missense	NM_021804:p.P84A
12586	X	18930954	18930954	G	T	G	K	exonic	GPR64	missense	NM_001184836:p.L697M
12586	X	24676989	24676989	G	T	G	K	exonic	POLA1	missense	NM_016937:p.A969S
12586	X	32969422	32969422	C	T	C	Y	intronic	DMD	NA	NA
12586	X	37524195	37524195	C	A	C	M	upstream	CYBB	NA	NA
12586	X	40343926	40343926	G	T	G	K	exonic	ATP6AP2	missense	NM_005765:p.A243S
12586	X	46798542	46798542	C	A	C	M	exonic	PHF16	silent	NM_001077445:p.T337T
12586	X	46917495	46917495	G	T	G	K	exonic	RBM10	missense	NM_005676:p.G153C
12586	X	49737711	49737711	C	T	C	Y	intronic	CLCN5	NA	NA
12586	X	53595965	53595965	C	T	C	Y	intronic	HUWE1	NA	NA
12586	X	54800388	54800388	C	A	C	M	exonic	ITIH5L	silent	NM_198510:p.P948P
12586	X	56313540	56313540	G	A	G	R	intronic	KLF8	NA	NA
12586	X	74721062	74721062	G	T	G	K	intergenic	NA	NA	NA
12586	X	78313413	78313413	C	A	C	M	exonic	GPR174	missense	NM_032553:p.P85T
12586	X	79715186	79715186	C	G	C	S	intergenic	NA	NA	NA
12586	X	85954960	85954960	A	G	A	R	intronic	DACH2	NA	NA
12586	X	86659766	86659766	A	T	A	W	exonic	KLHL4	missense	NM_019117:p.N72Y
12586	X	91124708	91124708	C	A	C	M	intronic	PCDH11X	NA	NA
12586	X	100920977	100920977	T	G	T	K	intergenic	NA	NA	NA
12586	X	112652650	112652650	C	A	C	M	intergenic	NA	NA	NA
12586	X	125126588	125126588	G	T	G	K	exonic	DCAF12L2	missense	NM_001013628:p.P334Q
12586	X	125126957	125126957	C	A	C	M	exonic	DCAF12L2	missense	NM_001013628:p.G211V
12586	X	134637485	134637485	G	T	G	K	intergenic	NA	NA	NA
12586	X	135259933	135259933	T	A	T	W	exonic	GPR112	silent	NM_153834:p.S2134S
12586	X	147862768	147862768	G	C	G	S	exonic	AFF2	missense	NM_001169122:p.D1081H
12586	X	150843434	150843434	C	A	C	M	exonic	MAGEA4	silent	NM_002362:p.G214G
12586	M	2073	2073	T	C	T	C	intergenic	NA	NA	NA
12804	1	154502857	154502857	T	C	T	Y	intronic	SMG5	NA	NA
12804	1	161216015	161216015	T	G	T	K	intergenic	NA	NA	NA
12804	1	161216016	161216016	C	T	C	Y	intergenic	NA	NA	NA

12804	1	198449771	198449771	C	T	C	Y	exonic	FAM58B	silent	NM_001105517:p.L153L
12804	1	214313160	214313160	G	T	G	K	exonic	USH2A	nonsense	NM_206933:p.S1893X
12804	1	222202493	222202493	T	C	T	Y	intergenic	NA	NA	NA
12804	1	234034395	234034395	C	A	C	M	intronic	LYST	NA	NA
12804	2	73306322	73306322	G	C	G	S	exonic	SMYD5	missense	NM_006062:p.R364P
12804	2	90977396	90977396	G	T	G	K	intergenic	NA	NA	NA
12804	2	113238564	113238564	C	A	C	M	intronic	CKAP2L	NA	NA
12804	2	113238565	113238565	C	A	C	M	intronic	CKAP2L	NA	NA
12804	2	176774065	176774065	G	T	G	K	intergenic	NA	NA	NA
12804	2	203730695	203730695	T	C	T	Y	exonic	NBEAL1	silent	NM_001114132:p.D1843D
12804	3	150384097	150384097	C	A	C	M	intronic	CP	NA	NA
12804	4	74683316	74683316	A	T	A	W	intronic	RASSF6	NA	NA
12804	4	140652441	140652441	G	A	G	R	exonic	SETD7	silent	NM_030648:p.V309V
12804	5	7869971	7869971	G	T	G	K	intronic	ADCY2	NA	NA
12804	5	33631840	33631840	G	C	G	S	exonic	ADAMTS12	silent	NM_030955:p.P870P
12804	5	35831556	35831556	A	-	T	*/-A	intronic	SPEF2	NA	NA
12804	7	6047147	6047147	G	A	G	R	exonic	EIF2AK1	nonsense	NM_014413:p.Q341X
12804	7	57702178	57702178	T	C	T	Y	intergenic	NA	NA	NA
12804	8	34851489	34851489	A	G	A	R	intergenic	NA	NA	NA
12804	9	113494136	113494136	C	T	C	Y	exonic	C9orf84	silent	NM_001080551:p.Q1211Q
12804	11	95235036	95235036	T	A	T	W	ncRNA	MTMR2	NA	NA
12804	12	93342922	93342922	A	G	A	R	intronic	CCDC41	NA	NA
12804	12	116180684	116180684	T	A	T	W	intronic	NOS1	NA	NA
12804	13	28779308	28779308	G	T	G	K	intronic	MTUS2	NA	NA
12804	13	41398339	41398339	C	T	C	Y	intronic	KIAA0564	NA	NA
12804	13	45475416	45475416	G	A	G	R	exonic	ZC3H13	missense	NM_015070:p.P268L
12804	14	102262519	102262519	C	T	C	Y	intronic	RCOR1	NA	NA
12804	14	103289037	103289037	A	T	A	W	intronic	PPP1R13B	NA	NA
12804	16	3059385	3059385	C	A	C	M	UTR3	IL32	NA	NA
12804	16	21078248	21078248	G	T	G	K	exonic	DNAH3	missense	NM_017539:p.R65
12804	16	33857854	33857854	G	C	G	S	intergenic	NA	NA	NA
12804	16	33866278	33866278	G	A	G	R	intergenic	NA	NA	NA
12804	16	33866293	33866293	T	A	T	W	intergenic	NA	NA	NA
12804	16	34436153	34436153	C	A	C	M	intergenic	NA	NA	NA
12804	16	69148485	69148485	A	T	A	W	intronic	SF3B3	NA	NA
12804	17	8354100	8354100	G	T	G	K	intronic	MYH10	NA	NA
12804	19	32424194	32424194	A	G	A	R	intergenic	NA	NA	NA
12804	20	60769686	60769686	G	T	G	K	exonic	SLCO4A1	missense	NM_016354:p.E539D
12804	20	61546593	61546593	C	A	C	M	exonic	KCNQ2	missense	NM_172106:p.A185S
12804	X	9995365	9995365	C	T	C	Y	exonic	WWC3	nonsense	NM_015691:p.R19X
12804	X	35899885	35899885	G	T	G	K	intronic	CXorf22	NA	NA
12804	X	40635320	40635320	G	T	G	K	intergenic	NA	NA	NA
12804	X	82650909	82650909	G	T	G	K	exonic	POU3F4	missense	NM_000307:p.E307D
12804	X	92364715	92364715	A	T	A	W	intergenic	NA	NA	NA
12804	X	153597687	153597687	G	T	G	K	exonic	GAB3	missense	NM_080612:p.L62I
12820	1	3635844	3635844	C	T	C	Y	exonic	TP73	missense	NM_001126240:p.R341W
12820	1	5655269	5655269	T	C	T	Y	intergenic	NA	NA	NA
12820	1	7770844	7770844	A	G	R	W	exonic	PER3	silent	NM_016831:p.A181A
12820	1	8312858	8312858	C	A	C	M	exonic	SLC45A1	missense	NM_001080397:p.L240I
12820	1	12341078	12341078	C	T	C	Y	intronic	VPS13D	NA	NA
12820	1	16205315	16205315	C	A	C	M	exonic	C1orf64	missense	NM_178840:p.P133T
12820	1	17227693	17227693	C	T	C	Y	exonic	SDHB	missense	NM_003000:p.D138N
12820	1	27406499	27406499	T	A	T	W	intergenic	NA	NA	NA
12820	1	52026105	52026105	A	G	A	R	ncRNA	OSBPL9	NA	NA
12820	1	71285042	71285042	G	T	G	K	exonic	PTGER3	silent	NM_198716:p.S269S
12820	1	71285043	71285043	G	T	G	K	exonic	PTGER3	missense	NM_198716:p.S269Y
12820	1	84324423	84324423	G	T	G	K	intronic	PRKACB	NA	NA
12820	1	89441726	89441726	T	C	T	Y	intergenic	NA	NA	NA
12820	1	94240164	94240164	G	T	G	K	intronic	ABCA4	NA	NA
12820	1	97785183	97785183	G	A	G	R	intronic	DPYD	NA	NA
12820	1	103161526	103161526	G	T	G	K	exonic	COL11A1	missense	NM_001854:p.P1203Q
12820	1	141481072	141481072	T	A	T	W	intergenic	NA	NA	NA
12820	1	141806195	141806195	G	A	G	R	intergenic	NA	NA	NA
12820	1	142291151	142291151	A	T	A	W	intergenic	NA	NA	NA
12820	1	146861194	146861194	A	G	A	R	exonic	NBPF15	missense	NM_173638:p.N648S
12820	1	147358939	147358939	G	A	G	R	intergenic	NA	NA	NA
12820	1	147360360	147360360	G	T	G	K	intergenic	NA	NA	NA
12820	1	148183210	148183210	C	A	C	M	exonic	OTUD7B	missense	NM_020205:p.G568W
12820	1	149429064	149429064	C	G	C	S	intronic	VPS72	NA	NA
12820	1	155926324	155926324	G	T	G	K	exonic	FCRL3	silent	NM_052939:p.S566S
12820	1	158366575	158366575	C	T	C	Y	exonic	ATP1A2	silent	NM_000702:p.A507A
12820	1	166685559	166685559	T	C	T	Y	intergenic	NA	NA	NA
12820	1	181054410	181054410	G	A	G	R	exonic	NPL	missense	NM_001200050:p.R171H
12820	1	194972683	194972683	A	T	A	W	exonic	CFH	missense	NM_000186:p.Q840H
12820	1	195275091	195275091	T	A	T	W	UTR3	F13B	NA	NA
12820	1	205339922	205339922	G	T	G	K	UTR3	C4BPB	NA	NA
12820	1	208030527	208030527	A	G	A	R	exonic	IRF6	silent	NM_006147:p.V332V
12820	1	211047659	211047659	G	C	G	S	intronic	TATDN3	NA	NA
12820	1	238436870	238436870	A	T	A	W	exonic	FMN2	missense	NM_020066:p.E712V

12820	1	240606933	240606933	C	A	C	M	intronic	PLD5	NA	NA	
12820	1	244557023	244557023	C	A	C	M	intronic	SMYD3	NA	NA	
12820	1	246179540	246179540	C	G	C	S	exonic	OR2L8	missense	NM_001001963:p.P253R	
12820	2	38151356	38151356	T	A	T	W	UTR3	CYP1B1	NA	NA	
12820	2	43818984	43818984	A	T	A	W	splicing	PLEKHH2	missense	NM_172069:p.T982S	
12820	2	44146650	44146650	T	A	T	W	intergenic	NA	NA	NA	
12820	2	44146651	44146651	A	T	A	W	intergenic	NA	NA	NA	
12820	2	54336535	54336535	C	T	C	Y	exonic	TSPYL6	silent	NM_001003937:p.A86A	
12820	2	61269116	61269116	C	T	C	Y	exonic	USP34	silent	NM_014709:p.S3422S	
12820	2	71507310	71507310	G	T	G	K	exonic	ZNF638	missense	NM_001014972:p.L1601F	
12820	2	74760259	74760259	C	T	C	Y	exonic	SEMA4F	silent	NM_004263:p.P576P	
12820	2	90968556	90968556	G	A	G	R	intergenic	NA	NA	NA	
12820	2	100988837	100988837	A	G	A	R	intronic	RPL31	NA	NA	
12820	2	106681224	106681224	A	G	A	R	intergenic	NA	NA	NA	
12820	2	119451607	119451607	G	A	G	R	intronic	MARCO	NA	NA	
12820	2	128742791	128742791	C	A	C	M	exonic	HS6ST1	silent	NM_004807:p.T217T	
12820	2	152696990	152696990	A	G	A	R	intronic	STAM2	NA	NA	
12820	2	159847952	159847952	A	G	A	R	intronic	WDSUB1	NA	NA	
12820	2	160609682	160609682	C	A	C	M	exonic	PLA2R1	silent	NM_001007267:p.R114R	
12820	2	161846460	161846460	C	A	C	M	intergenic	NA	NA	NA	
12820	2	167814324	167814324	G	T	G	K	exonic	XIRP2	missense	NM_152381:p.D2726Y	
12820	2	188057124	188057124	C	A	C	M	exonic	TFPI	silent	NM_006287:p.P200P	
12820	2	202427809	202427809	C	T	C	Y	intronic	CDK15	NA	NA	
12820	2	205677399	205677399	C	A	C	M	exonic	PARD3B	missense	NM_057177:p.S170Y	
12820	2	206983372	206983372	T	C	T	Y	intergenic	NA	NA	NA	
12820	2	216778127	216778127	C	A	C	M	intronic	XRCC5	NA	NA	
12820	2	234345709	234345709	A	T	A	W	exonic	UGT1A1	missense	NM_019075:p.D453V	
12820	3	11325456	11325456	A	T	A	W	splicing	ATG7	NA	NA	
12820	3	38963406	38963406	C	A	C	M	intronic	SCN11A	NA	NA	
12820	3	48577862	48577862	G	T	G	K	exonic	COL7A1	missense	NM_000094:p.H2838N	
12820	3	49381019	49381019	G	C	G	S	intronic	RHOA	NA	NA	
12820	3	74268530	74268530	G	T	G	K	intergenic	NA	NA	NA	
12820	3	97552142	97552142	T	C	T	Y	intergenic	NA	NA	NA	
12820	3	113471427	113471427	A	C	A	M	intronic	SLC9A10	NA	NA	
12820	3	120106185	120106185	C	T	C	Y	splicing	IGSF11	missense	NM_152538:p.R284K	
12820	3	121872071	121872071	T	A	T	W	splicing	HGD	NA	NA	
12820	3	126780571	126780571	T	C	T	Y	exonic	OSBPL11	missense	NM_022776:p.T138A	
12820	3	127617902	127617902	G	C	G	S	exonic	CCDC37	silent	NM_182628:p.S93S	
12820	3	132583708	132583708	C	T	C	Y	exonic	NUDT16	silent	NM_152395:p.R89R	
12820	3	134430834	134430834	C	A	C	M	UTR5	TMEM108	NA	NA	
12820	3	140663857	140663857	G	A	G	R	intronic	RBP2	NA	NA	
12820	3	147395824	147395824	C	G	C	S	ncRNA	PLSCR4	NA	NA	
12820	3	148611335	148611335	T	C	T	Y	exonic	ZIC1	missense	NM_003412:p.M249T	
12820	3	156724550	156724550	A	C	A	M	intronic	PLCH1	NA	NA	
12820	3	175475791	175475791	T	A	T	W	intronic	NLGN1	NA	NA	
12820	3	195888988	195888988	C	-	G	*/-C	exonic	FAM43A	FS_del	NM_153690:p.S48fs	
12820	3	195888990	195888990	G	T	G	K	exonic	FAM43A	missense	NM_153690:p.R49L	
12820	3	195888991	195888991	G	T	G	K	exonic	FAM43A	silent	NM_153690:p.R49R	
12820	3	199191893	199191893	G	T	G	K	ncRNA	LMLN	NA	NA	
12820	4	254381	254381	C	T	C	Y	downstream	ZNF732	NA	NA	
12820	4	5904015	5904015	G	A	G	R	intronic	CRMP1	NA	NA	
12820	4	9437064	9437064	C	T	C	Y	UTR3	SLC2A9	NA	NA	
12820	4	17439101	17439101	G	A	G	R	exonic	NCAPG	missense	NM_022346:p.E586K	
12820	4	42119619	42119619	T	C	T	Y	exonic	ATP8A1	silent	NM_006095:p.A1089A	
12820	4	48806289	48806289	C	G	C	S	intergenic	NA	NA	NA	
12820	4	48817689	48817689	C	T	C	Y	intergenic	NA	NA	NA	
12820	4	71145095	71145095	T	A	T	W	intronic	CSN3	NA	NA	
12820	4	73373487	73373487	C	A	C	M	intronic	ADAMTS3	NA	NA	
12820	4	123441868	123441868	A	T	A	W	intronic	KIAA1109	NA	NA	
12820	4	146516305	146516305	G	T	G	K	intergenic	NA	NA	NA	
12820	4	190724800	190724800	T	C	T	Y	intergenic	NA	NA	NA	
12820	4	191110249	191110249	A	C	A	M	intronic	FRG1	NA	NA	
12820	5	1087953	1087953	G	A	G	R	exonic	NKD2	missense	NM_033120:p.R170H	
12820	5	13770423	13770423	C	A	C	M	splicing	DNAH5	NA	NA	
12820	5	13918730	13918730	G	T	G	K	intronic	DNAH5	NA	NA	
12820	5	19519262	19519262	C	G	C	S	exonic	CDH18	missense	NM_001167667:p.V560L	
12820	5	27024065	27024065	C	G	C	S	exonic	CDH9	missense	NM_016279:p.G45R	
12820	5	36145839	36145839	T	-	C	*/-T	exonic	LMBRD2	FS_del	NM_001007527:p.R586fs	
12820	5	37007856	37007856	C	T	C	Y	exonic	NIPBL	missense	NM_133433:p.P275L	
12820	5	44149384	44149384	T	C	T	Y	intergenic	NA	NA	NA	
12820	5	71666553	71666553	A	T	A	W	intronic	PTCD2	NA	NA	
12820	5	74132466	74132466	T	C	T	Y	exonic	FAM169A	missense	NM_015566:p.I366M	
12820	5	79830072	79830072	G	T	G	K	intronic	FAM151B	NA	NA	
12820	5	82870925	82870925	C	A	C	M	exonic	VCAN	nonsense	NM_001164097:p.S1129X	
12820	5	89819668	89819668	G	T	G	K	exonic	POLR3G	missense	NM_006467:p.M71I	
12820	5	110466060	110466060	G	T	G	K	intronic	WDR36	NA	NA	
12820	5	127669523	127669523	T	C	T	Y	exonic	FBN2	silent	NM_001999:p.K1813K	
12820	5	129504441	129504441	T	A	T	W	intronic	CHSY3	NA	NA	
12820	5	140231017	140231017	G	C	G	S	exonic	PCDHA11	silent	NM_018902:p.L715L	



12820	5	140533977	140533977	T	A	T	W	exonic	PCDHB7	missense	NM_018940:p.F459L
12820	5	144715755	144715755	C	T	C	Y	intergenic	NA	NA	NA
12820	5	156525535	156525535	C	T	C	Y	exonic	FAM71B	missense	NM_130899:p.V75I
12820	5	159991937	159991937	G	C	G	S	exonic	ATP10B	missense	NM_025153:p.T466S
12820	6	28264424	28264424	T	A	T	W	intergenic	NA	NA	NA
12820	6	29249672	29249672	C	A	C	M	exonic	OR2J2	nonsense	NM_030905:p.S94X
12820	6	29339398	29339398	G	A	G	R	intergenic	NA	NA	NA
12820	6	29664168	29664168	C	G	C	S	exonic	OR2H2	silent	NM_007160:p.V156V
12820	6	66555120	66555120	G	C	G	S	ncRNA	MCART3P	NA	NA
12820	6	152664774	152664774	C	A	C	M	exonic	SYNE1	nonsense	NM_182961:p.E5822X
12820	6	165815768	165815768	T	A	T	W	intronic	PDE10A	NA	NA
12820	7	21923030	21923030	T	C	T	Y	exonic	CDC47L	missense	NM_001127371:p.K11R
12820	7	31125394	31125394	C	T	C	Y	intergenic	NA	NA	NA
12820	7	34854801	34854801	G	T	G	K	splicing	NPSR1	NA	NA
12820	7	36412555	36412555	G	C	G	S	exonic	ANLN	missense	NM_018685:p.G243A
12820	7	38223430	38223430	C	T	C	Y	splicing	STAR3D3NL	silent	NM_032016:p.N184N
12820	7	50563544	50563544	A	G	A	R	intronic	DDC	NA	NA
12820	7	81169946	81169946	C	G	C	S	exonic	HGF	missense	NM_000601:p.V692L
12820	7	94000512	94000512	G	T	G	K	intronic	CASD1	NA	NA
12820	7	95638731	95638731	T	C	T	Y	exonic	SLC25A13	missense	NM_014251:p.I407V
12820	7	99272028	99272028	C	A	C	M	exonic	CYP3A43	missense	NM_057096:p.H30N
12820	7	100017608	100017608	G	A	G	R	exonic	LRCH4	nonsense	NM_002319:p.R162X
12820	7	100048575	100048575	G	C	G	S	intronic	MOSPD3	NA	NA
12820	7	134773617	134773617	C	A	C	M	exonic	CNOT4	missense	NM_001190848:p.M1I
12820	7	134906386	134906386	C	G	C	S	intronic	NUP205	NA	NA
12820	7	139728729	139728729	C	A	C	M	exonic	SLC37A3	missense	NM_032295:p.V23L
12820	8	17052328	17052328	G	T	G	K	intergenic	NA	NA	NA
12820	8	22329458	22329458	G	C	G	S	intronic	SLC39A14	NA	NA
12820	8	34300083	34300083	C	T	C	Y	intergenic	NA	NA	NA
12820	8	47610166	47610166	G	T	G	K	intergenic	NA	NA	NA
12820	8	95607678	95607678	G	A	G	R	exonic	KIAA1429	missense	NM_015496:p.A657V
12820	8	109064658	109064658	C	A	C	M	intronic	RSPO2	NA	NA
12820	8	110200506	110200506	C	A	C	M	exonic	TRHR	silent	NM_003301:p.P281P
12820	8	113416926	113416926	G	T	G	K	intronic	CSMD3	NA	NA
12820	8	113720196	113720196	G	T	G	K	exonic	CSMD3	missense	NM_198123:p.T1144K
12820	8	113737583	113737583	T	C	T	Y	exonic	CSMD3	missense	NM_198123:p.N994D
12820	8	136726562	136726562	A	G	A	R	intronic	KHDRBS3	NA	NA
12820	9	418274	418274	C	T	C	Y	intronic	DOCK8	NA	NA
12820	9	8508246	8508246	C	A	C	M	exonic	PTPRD	missense	NM_002839:p.G382V
12820	9	32625320	32625320	C	G	C	S	exonic	TAF1L	missense	NM_153809:p.L86F
12820	9	67907090	67907090	C	T	C	Y	intergenic	NA	NA	NA
12820	9	67916061	67916061	G	A	G	R	intergenic	NA	NA	NA
12820	9	109656270	109656270	C	A	C	M	intergenic	NA	NA	NA
12820	9	116893059	116893059	G	C	G	S	exonic	TNC	silent	NM_002160:p.T20T
12820	9	129591487	129591487	C	T	C	Y	exonic	CDK9	silent	NM_001261:p.P321P
12820	9	130865644	130865644	G	C	G	S	splicing	FAM73B	NA	NA
12820	9	133095947	133095947	G	T	G	K	exonic	NUP214	nonsense	NM_005085:p.G2062X
12820	9	137579612	137579612	C	A	C	M	exonic	OBP2A	missense	NM_014582:p.R118S
12820	10	7803746	7803746	G	T	G	K	splicing	ITIH2	missense	NM_002216:p.E289D
12820	10	37273262	37273262	T	A	T	W	intergenic	NA	NA	NA
12820	10	44230068	44230068	A	G	A	R	intergenic	NA	NA	NA
12820	10	64614435	64614435	G	A	G	R	exonic	JMJD1C	silent	NM_004241:p.A2063A
12820	10	70002261	70002261	C	G	C	S	exonic	TET1	missense	NM_030625:p.Q54E
12820	10	70002294	70002294	A	G	A	R	exonic	TET1	missense	NM_030625:p.K65E
12820	10	75069592	75069592	G	A	G	R	intronic	MYOZ1	NA	NA
12820	10	99186338	99186338	G	T	G	K	intronic	EXOSC1	NA	NA
12820	10	118189023	118189023	C	T	C	Y	intronic	PNLIPRP3	NA	NA
12820	11	4800262	4800262	C	G	C	S	downstream	OR51F2	NA	NA
12820	11	5687204	5687204	G	T	G	K	exonic	TRIM22	missense	NM_006074:p.C416F
12820	11	17390860	17390860	G	C	G	S	exonic	ABCC8	missense	NM_000352:p.L829V
12820	11	22237793	22237793	C	T	C	Y	exonic	ANO5	silent	NM_213599:p.C520C
12820	11	22340914	22340914	T	A	T	W	exonic	SLC17A6	missense	NM_020346:p.Y239N
12820	11	23458092	23458092	C	T	C	Y	intergenic	NA	NA	NA
12820	11	25118757	25118757	C	A	C	M	intergenic	NA	NA	NA
12820	11	26539316	26539316	C	G	C	S	exonic	MUC15	missense	NM_145650:p.D293H
12820	11	47222971	47222971	C	A	C	M	exonic	ACP2	silent	NM_001610:p.P221P
12820	11	48223864	48223864	G	T	G	K	exonic	OR4X2	missense	NM_001004727:p.M211I
12820	11	51292659	51292659	A	T	A	W	intergenic	NA	NA	NA
12820	11	55409767	55409767	A	T	A	W	exonic	SPRYD5	missense	NM_032681:p.H96L
12820	11	58479666	58479666	C	A	C	M	exonic	GLYATL1	missense	NM_080661:p.P198T
12820	11	59702355	59702355	G	T	G	K	exonic	MS4A6A	missense	NM_152851:p.S98Y
12820	11	102458742	102458742	C	T	C	Y	exonic	DCUN1D5	missense	NM_032299:p.E96K
12820	11	117633133	117633133	G	A	G	R	UTR3	MPZL2	NA	NA
12820	11	117633137	117633137	G	A	G	R	UTR3	MPZL2	NA	NA
12820	11	124454272	124454272	G	T	G	K	exonic	SLC37A2	silent	NM_198277:p.L123L
12820	12	7143525	7143525	G	T	G	K	intronic	C1RL	NA	NA
12820	12	9686579	9686579	C	T	C	Y	intergenic	NA	NA	NA
12820	12	20902843	20902843	T	C	T	Y	intronic	SLCO1B3	NA	NA
12820	12	20925157	20925157	G	T	G	K	exonic	SLCO1B3	missense	NM_019844:p.G478V

12820	12	29601162	29601162	C	T	C	Y	exonic	TMTC1	missense	NM_175861:p.G416E
12820	12	39001072	39001072	C	A	C	M	intronic	LRRK2	NA	NA
12820	12	40786102	40786102	C	A	C	M	exonic	GXYLT1	missense	NM_173601:p.D217Y
12820	12	40967655	40967655	C	T	C	Y	intergenic	NA	NA	NA
12820	12	43743950	43743950	A	T	A	W	ncRNA	RACGAP1P	NA	NA
12820	12	47698763	47698763	G	A	G	R	intronic	PRKAG1	NA	NA
12820	12	51501890	51501890	C	G	C	S	UTR3	KRT79	NA	NA
12820	12	54915666	54915666	C	A	C	M	exonic	SLC39A5	missense	NM_001135195:p.P287Q
12820	12	63748769	63748769	C	T	C	Y	intronic	WIF1	NA	NA
12820	12	64143341	64143341	C	T	C	Y	exonic	MSRB3	missense	NM_001031679:p.P177L
12820	12	77086688	77086688	G	C	G	S	exonic	NAV3	missense	NM_014903:p.R1631T
12820	12	117135179	117135179	C	A	C	M	exonic	TAOK3	missense	NM_016281:p.D248Y
12820	12	122750235	122750235	A	G	A	R	exonic	TCTN2	missense	NM_024809:p.I513V
12820	12	124017475	124017475	C	G	C	S	intronic	DHX37	NA	NA
12820	12	131176981	131176981	T	C	T	Y	downstream	EP400NL	NA	NA
12820	13	36398729	36398729	A	T	A	W	intergenic	NA	NA	NA
12820	13	37043429	37043429	T	A	T	W	intronic	POSTN	NA	NA
12820	14	19366347	19366347	G	T	G	K	exonic	OR4N2	missense	NM_001004723:p.K300N
12820	14	23289386	23289386	G	T	G	K	intergenic	NA	NA	NA
12820	14	23494101	23494101	C	T	C	Y	exonic	DHRS4	missense	NM_021004:p.A49V
12820	14	34538505	34538505	T	C	T	Y	intronic	SRP54	NA	NA
12820	14	38754133	38754133	G	T	G	K	intergenic	NA	NA	NA
12820	14	41426077	41426077	G	T	G	K	exonic	LRFN5	missense	NM_152447:p.V167F
12820	14	41426634	41426634	A	C	A	M	exonic	LRFN5	silent	NM_152447:p.T352T
12820	14	46983171	46983171	G	T	G	K	intronic	MDGA2	NA	NA
12820	14	49830538	49830538	C	A	C	M	intronic	LZHGDH	NA	NA
12820	14	50358458	50358458	T	G	T	K	exonic	NIN	missense	NM_016350:p.T23P
12820	14	59143754	59143754	A	T	A	W	splicing	RTN1	NA	NA
12820	14	63522875	63522875	T	C	T	Y	intronic	SYNE2	NA	NA
12820	14	63589005	63589005	A	T	A	W	exonic	SYNE2	missense	NM_182914:p.H2874L
12820	14	65549663	65549663	G	T	G	K	intergenic	NA	NA	NA
12820	14	72482460	72482460	A	C	A	M	exonic	DCAF4	missense	NM_181340:p.H117P
12820	14	74974584	74974584	G	T	G	K	intronic	JDP2	NA	NA
12820	14	100561949	100561949	G	C	G	S	upstream;do	MIR329-1	NA	NA
12820	15	22978604	22978604	G	T	G	K	upstream	SNORD115-7	NA	NA
12820	15	71334094	71334094	C	T	C	Y	exonic	NEO1	nonsense	NM_002499:p.Q655X
12820	15	76612781	76612781	G	A	G	R	exonic	AGPHD1	missense	NM_001013619:p.S279N
12820	15	76869051	76869051	G	A	G	R	intronic	ADAMT57	NA	NA
12820	15	90464749	90464749	A	T	A	W	exonic	SLCO3A1	missense	NM_001145044:p.I354F
12820	16	2486963	2486963	G	T	G	K	exonic	TBC1D24	silent	NM_001199107:p.T271T
12820	16	23620920	23620920	C	-	T	*/-C	intronic	ERN2	NA	NA
12820	16	29405906	29405906	T	A	T	W	intergenic	NA	NA	NA
12820	16	46815708	46815708	T	A	T	W	exonic	ABCC11	missense	NM_032583:p.S177C
12820	16	70164111	70164111	G	A	G	R	intronic	TAT	NA	NA
12820	16	70714424	70714424	C	A	C	M	intronic	PMFBP1	NA	NA
12820	16	82741448	82741448	G	T	G	K	splicing	LRRC50	missense	NM_178452:p.G118C
12820	17	632668	632668	G	A	G	R	exonic	RNMTL1	silent	NM_018146:p.G100G
12820	17	2213567	2213567	G	T	G	K	exonic	SGSM2	missense	NM_014853:p.R244L
12820	17	6922086	6922086	G	A	G	R	exonic	CLEC10A	silent	NM_006344:p.G46G
12820	17	7519119	7519119	T	C	T	Y	exonic	TP53	missense	NM_001126117:p.H47R
12820	17	7891494	7891494	G	A	G	R	intronic	ALOX15B	NA	NA
12820	17	7986726	7986726	G	A	G	R	exonic	PER1	silent	NM_002616:p.S1075S
12820	17	10475680	10475680	C	T	C	Y	exonic	MYH3	silent	NM_002470:p.E1753E
12820	17	14080916	14080916	G	T	G	K	upstream	CDRT15	NA	NA
12820	17	31521436	31521436	A	T	A	W	exonic	TBC1D3B	missense	NM_001001417:p.L198H
12820	17	36875505	36875505	C	-	T	*/-C	intronic	KRT32	NA	NA
12820	17	36913037	36913037	C	T	C	Y	intronic	KRT13	NA	NA
12820	17	40205810	40205810	C	T	C	Y	exonic	ADAM11	silent	NM_002390:p.I246I
12820	17	45250192	45250192	G	C	G	S	exonic	MYST2	missense	NM_001199158:p.R156S
12820	17	49255984	49255984	C	A	C	M	exonic	KIF2B	missense	NM_032559:p.H197Q
12820	17	53779852	53779852	C	A	C	M	intronic	SUPT4H1	NA	NA
12820	17	59312102	59312102	G	A	G	R	intronic	GH2	NA	NA
12820	17	71856283	71856283	G	A	G	R	intronic	PRPSAP1	NA	NA
12820	17	72712973	72712973	A	T	A	W	exonic	SEC14L1	missense	NM_003003:p.E373D
12820	18	99683	99683	A	C	A	M	ncRNA	ROCK1P1	NA	NA
12820	18	14800050	14800050	A	G	A	R	intronic	ANKRD30B	NA	NA
12820	18	16771423	16771423	T	C	T	Y	intergenic	NA	NA	NA
12820	18	21060321	21060321	A	C	A	M	exonic	ZNF521	missense	NM_015461:p.M520R
12820	18	28514368	28514368	G	T	G	K	splicing	KLHL14	NA	NA
12820	18	38808093	38808093	G	A	G	R	exonic	RIT2	nonsense	NM_002930:p.Q60X
12820	18	48532383	48532383	G	A	G	R	intronic	DCC	NA	NA
12820	19	19499853	19499853	C	T	C	Y	exonic	NDUFA13	missense	NM_015965:p.P118L
12820	19	20837705	20837705	A	G	A	R	intergenic	NA	NA	NA
12820	19	22499303	22499303	G	C	G	S	intergenic	NA	NA	NA
12820	19	23907135	23907135	A	T	A	W	intergenic	NA	NA	NA
12820	19	38955803	38955803	T	A	T	W	exonic	CHST8	missense	NM_001127895:p.Y424N
12820	19	41680101	41680101	G	A	G	R	intergenic	NA	NA	NA
12820	19	44590416	44590416	C	T	C	Y	exonic	ZFP36	missense	NM_003407:p.P73L
12820	19	47412944	47412944	T	A	T	W	exonic	DEDD2	missense	NM_133328:p.D19V

12820	19	49228281	49228281	A	T	A	W	exonic	ZNF222	missense	NM_013360:p.Q205L
12820	19	52536000	52536000	G	A	G	R	exonic	GPR77	missense	NM_018485:p.R35H
12820	19	52688201	52688201	C	T	C	Y	exonic	NAPA	missense	NM_003827:p.E155K
12820	19	53614677	53614677	A	G	A	R	exonic	GRIN2D	missense	NM_000836:p.I629V
12820	19	57561345	57561345	C	T	C	Y	exonic	ZNF610	missense	NM_173530:p.S301L
12820	19	58359937	58359937	T	A	T	W	exonic	ZNF665	nonsense	NM_024733:p.K540X
12820	19	58650422	58650422	A	G	A	R	exonic	ZNF761	missense	NM_001008401:p.I284V
12820	19	59253342	59253342	T	A	T	W	intronic	VSTM1	NA	NA
12820	19	59939563	59939563	C	A	C	M	UTR3	KIR3DL3	NA	NA
12820	19	60144146	60144146	C	A	C	M	exonic	NLRP7	missense	NM_206828:p.G106V
12820	19	63137088	63137088	G	A	G	R	intronic	ZNF418	NA	NA
12820	20	23914302	23914302	A	T	A	W	splicing	GGTLC1	NA	NA
12820	20	28221531	28221531	C	T	C	Y	intergenic	NA	NA	NA
12820	20	40169058	40169058	C	A	C	M	intronic	PTPRT	NA	NA
12820	20	43604175	43604175	C	A	C	M	UTR3	SPINLW1	NA	NA
12820	20	48007954	48007954	A	T	A	W	intergenic	NA	NA	NA
12820	21	10121988	10121988	T	A	T	W	intergenic	NA	NA	NA
12820	21	35343083	35343083	T	C	T	Y	UTR5	RUNX1	NA	NA
12820	22	14785879	14785879	A	T	A	W	intergenic	NA	NA	NA
12820	22	23228113	23228113	G	A	G	R	exonic	UPB1	missense	NM_016327:p.R99H
12820	22	30564620	30564620	G	T	G	K	intronic	DEPDC5	NA	NA
12820	22	31161697	31161697	G	A	G	R	exonic	BPIL2	silent	NM_174932:p.T306T
12820	22	31168615	31168615	G	A	G	R	intronic	BPIL2	NA	NA
12820	22	36604004	36604004	G	A	G	R	exonic	EIF3L	silent	NM_016091:p.E485E
12820	22	49024298	49024298	C	A	C	M	exonic	TUBGCP6	missense	NM_020461:p.D240Y
12820	X	8960574	8960574	G	A	G	R	intronic	FAM9B	NA	NA
12820	X	12754156	12754156	C	A	C	M	intergenic	NA	NA	NA
12820	X	31764816	31764816	T	C	T	Y	exonic	DMD	silent	NM_004007:p.E2257E
12820	X	49317762	49317762	G	A	G	R	intergenic	NA	NA	NA
12820	X	54337998	54337998	G	T	G	K	exonic	WNK3	missense	NM_020922:p.S469Y
12820	X	65741067	65741067	G	C	G	S	exonic	EDA2R	nonsense	NM_021783:p.Y91X
12820	X	78313958	78313958	C	T	C	Y	exonic	GPR174	silent	NM_032553:p.A266A
12820	X	78503690	78503690	G	C	G	S	intronic	ITM2A	NA	NA
12820	X	85954789	85954789	G	T	G	K	splicing	DACH2	missense	NM_001139515:p.G297C
12820	X	90977700	90977700	G	T	G	K	splicing	PCDH11X	NA	NA
12820	X	91020338	91020338	-	T	G	*/+T	exonic	PCDH11X	FS_ins	NM_032969:p.V815fs
12820	X	110442549	110442549	G	T	G	K	exonic	DCX	missense	NM_001195553:p.P340T
12820	X	132715874	132715874	A	-	T	*/-A	intronic	GPC3	NA	NA
12820	X	134141946	134141946	C	T	C	Y	intergenic	NA	NA	NA
12820	X	142424567	142424567	G	T	G	K	exonic	SPANXN3	missense	NM_001009609:p.L57I
12820	X	142794905	142794905	C	A	C	M	exonic	UBE2NL	missense	NM_001012989:p.Q13K
12820	Y	11752752	11752752	G	T	G	K	intergenic	NA	NA	NA
12820	Y	11772729	11772729	C	T	C	Y	intergenic	NA	NA	NA
12820	Y	11775154	11775154	G	A	G	R	intergenic	NA	NA	NA
12820	M	396	396	C	T	C	Y	intergenic	NA	NA	NA
12862	1	2619068	2619068	C	A	C	M	intergenic	NA	NA	NA
12862	2	161843420	161843420	C	T	C	Y	intergenic	NA	NA	NA
12862	9	67910418	67910418	A	T	A	W	intergenic	NA	NA	NA
12862	10	127570858	127570858	G	A	G	R	intergenic	NA	NA	NA
12862	11	118391204	118391204	A	T	A	W	intronic	CCDC84	NA	NA
12862	15	19401842	19401842	T	G	T	K	intergenic	NA	NA	NA
12862	16	34351212	34351212	A	G	A	R	intergenic	NA	NA	NA
12862	17	28173919	28173919	T	G	T	K	intronic	MYO1D	NA	NA
12862	19	49655064	49655064	T	C	T	Y	intergenic	NA	NA	NA
12862	21	9732808	9732808	T	G	T	K	intergenic	NA	NA	NA
12862	Y	11773487	11773487	G	A	G	R	intergenic	NA	NA	NA
12924	1	13590934	13590934	C	A	C	M	intronic	PRAMEF17	NA	NA
12924	1	13590935	13590935	C	A	C	M	intronic	PRAMEF17	NA	NA
12924	1	16806437	16806437	C	T	C	Y	UTR5	NBPF1	NA	NA
12924	1	19311641	19311641	C	A	C	M	exonic	UBR4	missense	NM_020765:p.R3922L
12924	1	22075318	22075318	C	A	C	M	exonic	HSPG2	silent	NM_005529:p.L998L
12924	1	28665439	28665439	A	G	A	R	intronic	PHACTR4	NA	NA
12924	1	32659958	32659958	T	A	T	W	intergenic	NA	NA	NA
12924	1	33843582	33843582	C	G	C	S	exonic	CSMD2	missense	NM_052896:p.G2142A
12924	1	33962308	33962308	A	T	A	W	intronic	CSMD2	NA	NA
12924	1	36698961	36698961	C	G	C	S	exonic	MRPS15	missense	NM_031280:p.E102Q
12924	1	39679531	39679531	G	C	G	S	exonic	MACF1	missense	NM_033044:p.E4650Q
12924	1	42730177	42730177	A	T	A	W	intergenic	NA	NA	NA
12924	1	43680666	43680666	C	T	C	Y	intronic	KIAA0467	NA	NA
12924	1	55461216	55461216	A	T	A	W	intergenic	NA	NA	NA
12924	1	67076055	67076055	C	A	C	M	exonic	WDR78	missense	NM_024763:p.V503F
12924	1	67210044	67210044	G	A	G	R	intronic	MIER1	NA	NA
12924	1	74421756	74421756	T	A	T	W	exonic	LRRIQ3	silent	NM_001105659:p.P67P
12924	1	81740912	81740912	C	G	C	S	intergenic	NA	NA	NA
12924	1	84650642	84650642	C	A	C	M	exonic	DNASE2B	missense	NM_021233:p.N190K
12924	1	86019473	86019473	G	T	G	K	intronic	COL24A1	NA	NA
12924	1	103222316	103222316	C	A	C	M	exonic	COL11A1	missense	NM_001854:p.G841V
12924	1	103961885	103961885	G	T	G	K	intronic	AMY2A	NA	NA
12924	1	107669038	107669038	C	G	C	S	exonic	NTNG1	nonsense	NM_001113228:p.Y286X

12924	1	108109266	108109266	T	C	T	Y	exonic	VAV3	silent	NM_006113:p.L292L
12924	1	110061543	110061543	G	T	G	K	exonic	GSTM5	missense	NM_000851:p.G210V
12924	1	141477101	141477101	T	G	T	K	intergenic	NA	NA	NA
12924	1	144500231	144500231	C	T	C	Y	intronic	GPR89A	NA	NA
12924	1	150547961	150547961	G	T	G	K	exonic	FLG	missense	NM_002016:p.H2009N
12924	1	151853959	151853959	C	-	A	*/-C	UTR3	S100A14	NA	NA
12924	1	152490169	152490169	G	T	G	K	exonic	UBAP2L	silent	NM_001127320:p.V414V
12924	1	153469968	153469968	G	C	G	S	downstream	GBA	NA	NA
12924	1	154146938	154146938	-	TT	A	*/+TT	intronic	RIT1	NA	NA
12924	1	154399315	154399315	G	A	G	R	intronic	SEMA4A	NA	NA
12924	1	154561628	154561628	C	A	C	M	intronic	CCT3	NA	NA
12924	1	156491328	156491328	C	T	C	Y	intronic	CD1A	NA	NA
12924	1	156656302	156656302	A	T	A	W	downstream	OR10K2	NA	NA
12924	1	157676292	157676292	C	A	C	M	exonic	OR10J1	silent	NM_012351:p.G40G
12924	1	167842839	167842839	G	T	G	K	exonic	SELP	missense	NM_003005:p.N497K
12924	1	169514628	169514628	G	A	G	R	exonic	FMO1	silent	NM_002021:p.A207A
12924	1	169919748	169919748	G	T	G	K	intergenic	NA	NA	NA
12924	1	173281304	173281304	G	T	G	K	intergenic	NA	NA	NA
12924	1	188333768	188333768	T	C	T	Y	UTR3	FAM5C	NA	NA
12924	1	194562683	194562683	C	A	C	M	intronic	KCNT2	NA	NA
12924	1	195458738	195458738	A	C	A	M	intergenic	NA	NA	NA
12924	1	199222821	199222821	G	T	G	K	exonic	KIF21B	silent	NM_017596:p.G1180G
12924	1	199461546	199461546	G	C	G	S	intronic	IGFN1	NA	NA
12924	1	201406901	201406901	T	A	T	W	exonic	MYBPH	missense	NM_004997:p.N282Y
12924	1	201719142	201719142	C	G	C	S	exonic	PRELP	missense	NM_201348:p.I69M
12924	1	202402011	202402011	G	T	G	K	exonic	REN	missense	NM_000537:p.L12M
12924	1	202663963	202663963	C	A	C	M	exonic	PIK3C2B	missense	NM_002646:p.L1469F
12924	1	202854551	202854551	G	T	G	K	exonic	LRRN2	missense	NM_006338:p.A398E
12924	1	206138934	206138934	C	T	C	Y	intronic	CD34	NA	NA
12924	1	210275296	210275296	C	G	C	S	intronic	INTS7	NA	NA
12924	1	218901829	218901829	A	T	A	W	exonic	MARK1	nonsense	NM_018650:p.K696X
12924	1	226712213	226712213	C	A	C	M	upstream	HIST3H2A	NA	NA
12924	1	227652965	227652965	C	G	C	S	exonic	NUP133	missense	NM_018230:p.C1037S
12924	1	238242972	238242972	C	T	C	Y	intergenic	NA	NA	NA
12924	1	238559029	238559029	G	T	G	K	exonic	FMN2	nonsense	NM_020066:p.E1416X
12924	1	239098758	239098758	C	A	C	M	exonic	RGS7	silent	NM_002924:p.L156L
12924	1	240223446	240223446	C	G	C	S	intergenic	NA	NA	NA
12924	1	240343726	240343726	C	A	C	M	intronic	PLD5	NA	NA
12924	1	245721475	245721475	C	A	C	M	exonic	OR2W5	nonsense	NM_001004698:p.C141X
12924	1	245721476	245721476	C	G	C	S	exonic	OR2W5	missense	NM_001004698:p.L142V
12924	1	245902100	245902100	G	T	G	K	exonic	OR13G1	missense	NM_001005487:p.F289L
12924	1	245988273	245988273	G	C	G	S	exonic	OR1C1	nonsense	NM_012353:p.S20X
12924	1	246126121	246126121	G	T	G	K	exonic	OR2W3	missense	NM_001001957:p.V204L
12924	1	246352120	246352120	C	A	C	M	ncRNA	OR2M1P	NA	NA
12924	1	246636988	246636988	G	T	G	K	exonic	OR2T1	missense	NM_030904:p.R357M
12924	1	246636989	246636989	G	T	G	K	exonic	OR2T1	missense	NM_030904:p.R357S
12924	1	246822802	246822802	G	T	G	K	exonic	OR2T10	silent	NM_001004693:p.V297V
12924	2	15365868	15365868	C	A	C	M	exonic	NBAS	missense	NM_015909:p.A1574S
12924	2	15365869	15365869	C	A	C	M	exonic	NBAS	silent	NM_015909:p.L1573L
12924	2	15437187	15437187	C	A	C	M	exonic	NBAS	missense	NM_015909:p.D1194Y
12924	2	15437394	15437394	T	G	T	K	exonic	NBAS	missense	NM_015909:p.S1125R
12924	2	26104615	26104615	G	T	G	K	intergenic	NA	NA	NA
12924	2	37188244	37188244	G	T	G	K	intronic	EIF2AK2	NA	NA
12924	2	44282638	44282638	G	A	G	R	exonic	PPM1B	missense	NM_001033557:p.D266N
12924	2	48541840	48541840	C	T	C	Y	exonic	KLRAQ1	missense	NM_152994:p.S220L
12924	2	49049306	49049306	G	T	G	K	intronic	FSHR	NA	NA
12924	2	53978955	53978955	C	A	C	M	exonic	PSME4	nonsense	NM_014614:p.E1155X
12924	2	64650382	64650382	A	T	A	W	intronic	AFTPH	NA	NA
12924	2	71045120	71045120	G	A	G	R	exonic	ATP6V1B1	missense	NM_001692:p.M396I
12924	2	86938803	86938803	G	T	G	K	exonic	CD8B	missense	NM_172213:p.S97R
12924	2	90963128	90963128	A	C	A	M	intergenic	NA	NA	NA
12924	2	115942761	115942761	C	G	C	S	intronic	DPP10	NA	NA
12924	2	119445600	119445600	C	T	C	Y	intronic	MARCO	NA	NA
12924	2	120085710	120085710	A	G	A	R	exonic	PCDP1	silent	NM_001029996:p.G125G
12924	2	120394371	120394371	C	A	C	M	intronic	PTPN4	NA	NA
12924	2	127900247	127900247	A	T	A	W	exonic	PROC	missense	NM_000312:p.T218S
12924	2	128196992	128196992	C	T	C	Y	intronic	WDR33	NA	NA
12924	2	131917389	131917389	C	T	C	Y	ncRNA	LOC401010	NA	NA
12924	2	132762012	132762012	C	T	C	Y	intergenic	NA	NA	NA
12924	2	136291413	136291413	C	T	C	Y	exonic	LCT	missense	NM_002299:p.G559S
12924	2	161846523	161846523	C	G	C	S	intergenic	NA	NA	NA
12924	2	162067176	162067176	T	C	T	Y	intergenic	NA	NA	NA
12924	2	165692685	165692685	C	A	C	M	exonic	SCN3A	missense	NM_001081676:p.R983I
12924	2	165694683	165694683	A	G	A	R	intronic	SCN3A	NA	NA
12924	2	166508130	166508130	T	A	T	W	intronic	TTC21B	NA	NA
12924	2	167812135	167812135	C	A	C	M	exonic	XIRP2	missense	NM_152381:p.T1996N
12924	2	172530142	172530142	C	A	C	M	exonic	HAT1	missense	NM_003642:p.P116Q
12924	2	173040504	173040504	C	A	C	M	exonic	ITGA6	silent	NM_001079818:p.V119V
12924	2	173040550	173040550	C	T	C	Y	intronic	ITGA6	NA	NA

12924	2	182251148	182251148	G	A	G	R	exonic	NEUROD1	missense	NM_002500:p.P229S
12924	2	182720125	182720125	C	A	C	M	splicing	PDE1A	NA	NA
12924	2	182761933	182761933	A	G	A	R	intronic	PDE1A	NA	NA
12924	2	185511661	185511661	T	C	T	Y	exonic	ZNF804A	missense	NM_194250:p.I1098T
12924	2	190503648	190503648	A	T	A	W	intergenic	NA	NA	NA
12924	2	196573891	196573891	T	A	T	W	intronic	DNAH7	NA	NA
12924	2	201172637	201172637	G	T	G	K	exonic	AOX1	missense	NM_001159:p.G120V
12924	2	201980520	201980520	A	T	A	W	exonic	TRAK2	missense	NM_015049:p.L46Q
12924	2	204509717	204509717	G	T	G	K	UTR5	ICOS	NA	NA
12924	2	210871417	210871417	C	G	C	S	exonic	MYL1	missense	NM_079422:p.R48S
12924	2	216001148	216001148	C	G	C	S	splicing	FN1	missense	NM_054034:p.G282R
12924	2	222535978	222535978	G	T	G	K	intergenic	NA	NA	NA
12924	2	224170490	224170490	C	A	C	M	exonic	SCG2	missense	NM_003469:p.M58S1
12924	2	227651084	227651084	T	A	T	W	intronic	COL4A4	NA	NA
12924	2	239701741	239701741	C	G	C	S	exonic	HDAC4	missense	NM_006037:p.R574P
12924	2	239701742	239701742	G	T	G	K	exonic	HDAC4	silent	NM_006037:p.R574R
12924	2	241788367	241788367	G	A	G	R	intronic	ANO7	NA	NA
12924	3	2917527	2917527	G	T	G	K	intronic	CNTN4	NA	NA
12924	3	15495935	15495935	C	T	C	Y	intronic	COLQ	NA	NA
12924	3	16615067	16615067	C	A	C	M	exonic	DAZL	nonsense	NM_001190811:p.E36X
12924	3	27022147	27022147	A	T	A	W	intergenic	NA	NA	NA
12924	3	42702544	42702544	G	T	G	K	exonic	KBTBD5	missense	NM_152393:p.D144Y
12924	3	43364914	43364914	G	A	G	R	exonic	SNRK	missense	NM_017719:p.R720Q
12924	3	46038131	46038131	G	T	G	K	exonic	XCR1	missense	NM_005283:p.L10S1
12924	3	46374872	46374872	G	T	G	K	exonic	CCR2	missense	NM_001123041:p.D284Y
12924	3	47887307	47887307	C	G	C	S	splicing	MAP4	silent	NM_002375:p.R953R
12924	3	51969965	51969965	T	G	T	K	intronic	PCBP4	NA	NA
12924	3	56602207	56602207	A	T	A	W	intronic	CCDC66	NA	NA
12924	3	58343344	58343344	A	T	A	W	exonic	PXK	missense	NM_017771:p.I89L
12924	3	65408699	65408699	C	A	C	M	intronic	MAGI1	NA	NA
12924	3	90366282	90366282	G	T	G	K	intergenic	NA	NA	NA
12924	3	110236765	110236765	G	T	G	K	intronic	MORC1	NA	NA
12924	3	112313692	112313692	G	T	G	K	exonic	PVRL3	missense	NM_015480:p.G96C
12924	3	113314450	113314450	G	T	G	K	intronic	C3orf52	NA	NA
12924	3	113700766	113700766	C	A	C	M	intronic	BTLA	NA	NA
12924	3	113899247	113899247	A	C	A	M	intergenic	NA	NA	NA
12924	3	113899248	113899248	G	T	G	K	intergenic	NA	NA	NA
12924	3	122788154	122788154	T	C	T	Y	UTR3	ARGFX	NA	NA
12924	3	122898003	122898003	T	A	T	W	exonic	GOLGB1	nonsense	NM_004487:p.K1348X
12924	3	128781418	128781418	C	A	C	M	intronic	TPRA1	NA	NA
12924	3	133445462	133445462	G	A	G	R	intergenic	NA	NA	NA
12924	3	137528753	137528753	C	A	C	M	exonic	PCCB	missense	NM_000532:p.A422E
12924	3	149367478	149367478	C	A	C	M	intergenic	NA	NA	NA
12924	3	149367479	149367479	C	A	C	M	intergenic	NA	NA	NA
12924	3	149367621	149367621	G	A	G	R	intergenic	NA	NA	NA
12924	3	155553770	155553770	G	A	G	R	intronic	GPR149	NA	NA
12924	3	156317039	156317039	G	T	G	K	exonic	MME	nonsense	NM_007288:p.E146X
12924	3	157343737	157343737	C	A	C	M	exonic	KCNAB1	missense	NM_003471:p.L26I
12924	3	157622019	157622019	T	A	T	W	intronic	KCNAB1	NA	NA
12924	3	166191937	166191937	C	T	C	Y	exonic	SI	missense	NM_001041:p.G1669E
12924	3	180805128	180805128	C	-	A	*/-C	UTR5	MRPL47	NA	NA
12924	3	181524526	181524526	C	T	C	Y	intergenic	NA	NA	NA
12924	3	187388638	187388638	T	A	T	W	intronic	DGKG	NA	NA
12924	3	187480284	187480284	C	A	C	M	intronic	DGKG	NA	NA
12924	3	187852781	187852781	C	A	C	M	exonic	FETUB	missense	NM_014375:p.N272K
12924	3	198723629	198723629	C	G	C	S	exonic	BDH1	missense	NM_203315:p.R189P
12924	4	653890	653890	C	A	C	M	exonic	PDE6B	silent	NM_000283:p.I853I
12924	4	2102702	2102702	C	A	C	M	intronic	POLN	NA	NA
12924	4	2102703	2102703	C	A	C	M	intronic	POLN	NA	NA
12924	4	32689002	32689002	G	T	G	K	intergenic	NA	NA	NA
12924	4	40046028	40046028	C	-	T	*/-C	exonic	CHRNA9	FS_del	NM_017581:c.738_738delC
12924	4	45755269	45755269	G	T	G	K	exonic	GABRG1	missense	NM_173536:p.H251Q
12924	4	48286387	48286387	G	C	G	S	intronic	FRYL	NA	NA
12924	4	48331121	48331121	C	A	C	M	exonic	FRYL	missense	NM_015030:p.A22S
12924	4	55665621	55665621	G	A	G	R	exonic	KDR	nonsense	NM_002253:p.Q645X
12924	4	57154714	57154714	C	T	C	Y	intergenic	NA	NA	NA
12924	4	57209659	57209659	C	A	C	M	exonic	HOPX	missense	NM_032495:p.R87I
12924	4	71145095	71145095	T	A	T	W	UTR5	CSN3	NA	NA
12924	4	77485661	77485661	C	A	C	M	intronic	CCDC158	NA	NA
12924	4	106578638	106578638	C	A	C	M	exonic	PPA2	missense	NM_176869:p.W149L
12924	4	110061162	110061162	A	G	A	R	intronic	COL25A1	NA	NA
12924	4	126592756	126592756	G	T	G	K	exonic	FAT4	missense	NM_024582:p.S3712I
12924	4	140528680	140528680	G	A	G	R	exonic	NAA15	missense	NM_057175:p.E865K
12924	4	145848821	145848821	C	A	C	M	exonic	HHIP	missense	NM_022475:p.N403K
12924	4	153785128	153785128	T	C	T	Y	intronic	TMEM154	NA	NA
12924	4	154011374	154011374	G	A	G	R	exonic	ARFIP1	silent	NM_001025595:p.L74L
12924	4	155939392	155939392	C	T	C	Y	exonic	RBM46	nonsense	NM_144979:p.Q210X
12924	4	164274067	164274067	C	A	C	M	intronic	NAF1	NA	NA
12924	4	164613809	164613809	C	G	C	S	exonic	TKTL2	missense	NM_032136:p.L176F

12924	4	166061112	166061112	T	A	T	W	intergenic	NA	NA	NA
12924	4	167135773	167135773	C	T	C	Y	exonic	TLL1	missense	NM_012464:p.P209S
12924	4	176809946	176809946	G	T	G	K	intronic	GPM6A	NA	NA
12924	4	177286942	177286942	C	G	C	S	exonic	WDR17	missense	NM_181265:p.L284V
12924	4	182680966	182680966	A	G	A	R	intergenic	NA	NA	NA
12924	4	191199935	191199935	G	A	G	R	intergenic	NA	NA	NA
12924	5	5253438	5253438	C	A	C	M	intronic	ADAMTS16	NA	NA
12924	5	10717763	10717763	G	T	G	K	intergenic	NA	NA	NA
12924	5	23724870	23724870	C	G	C	S	intergenic	NA	NA	NA
12924	5	24206573	24206573	C	A	C	M	intergenic	NA	NA	NA
12924	5	24523857	24523857	G	C	G	S	exonic	CDH10	missense	NM_001190450:p.A250G
12924	5	29884560	29884560	C	A	C	M	intergenic	NA	NA	NA
12924	5	32258061	32258061	C	A	C	M	intergenic	NA	NA	NA
12924	5	33596842	33596842	T	C	T	Y	intronic	ADAMTS12	NA	NA
12924	5	40816511	40816511	C	A	C	M	intronic	PRKAA1	NA	NA
12924	5	40816512	40816512	C	A	C	M	intronic	PRKAA1	NA	NA
12924	5	41231612	41231612	T	C	T	Y	intronic	C6	NA	NA
12924	5	45298623	45298623	G	T	G	K	exonic	HCN1	missense	NM_021072:p.N610K
12924	5	50164423	50164423	G	T	G	K	exonic	PARP8	missense	NM_001178056:p.S720I
12924	5	58156870	58156870	G	T	G	K	intronic	RAB3C	NA	NA
12924	5	67625011	67625021	CAGTAT	-	T	*-/	exonic	PIK3R1	FS_del	NM_181504:c.433_443del
				AATCC			CAGTATAAT				
							CC				
12924	5	96126798	96126798	A	G	A	R	intronic	CAST	NA	NA
12924	5	101821994	101821994	A	T	A	W	exonic	SLCO6A1	silent	NM_173488:p.A374A
12924	5	107089546	107089546	G	A	G	R	intergenic	NA	NA	NA
12924	5	107089547	107089547	G	T	G	K	intergenic	NA	NA	NA
12924	5	110519547	110519547	C	A	C	M	intergenic	NA	NA	NA
12924	5	110519548	110519548	C	A	C	M	intergenic	NA	NA	NA
12924	5	112139224	112139224	G	T	G	K	splicing	APC	NA	NA
12924	5	112139225	112139225	G	T	G	K	splicing	APC	missense	NM_000038:p.R141S
12924	5	121035275	121035275	C	A	C	M	intergenic	NA	NA	NA
12924	5	126760120	126760120	C	A	C	M	intronic	MEGF10	NA	NA
12924	5	126875253	126875253	C	G	C	S	intergenic	NA	NA	NA
12924	5	129011536	129011536	T	A	T	W	intronic	ADAMTS19	NA	NA
12924	5	140461183	140461183	C	T	C	Y	exonic	PCDHB3	missense	NM_018937:p.P256S
12924	5	140496128	140496128	G	T	G	K	exonic	PCDHB5	missense	NM_015669:p.A310S
12924	5	141338059	141338059	C	G	C	S	exonic	RNF14	missense	NM_183401:p.A105G
12924	5	147909840	147909840	G	C	G	S	intronic	HTR4	NA	NA
12924	5	150916071	150916071	A	G	A	R	intronic	FAT2	NA	NA
12924	5	150925641	150925641	A	G	A	R	exonic	FAT2	silent	NM_001447:p.H1015H
12924	5	152853684	152853684	G	C	G	S	exonic	GRIA1	missense	NM_000827:p.G29A
12924	5	154231535	154231535	G	A	G	R	exonic	CNOT8	missense	NM_004779:p.E176K
12924	5	161256709	161256709	G	T	G	K	exonic	GABRA1	missense	NM_001127648:p.K358N
12924	5	161256710	161256710	G	T	G	K	exonic	GABRA1	missense	NM_001127648:p.D359Y
12924	5	168032882	168032882	C	A	C	M	exonic	SLIT3	missense	NM_003062:p.S1240I
12924	5	168109208	168109208	A	C	A	M	exonic	SLIT3	missense	NM_003062:p.S662A
12924	5	169466096	169466096	G	T	G	K	exonic	FOX11	missense	NM_144769:p.R186L
12924	5	175042923	175042923	C	A	C	M	exonic	HRH2	silent	NM_001131055:p.V27V
12924	5	175958410	175958410	C	G	C	S	exonic	GPRIN1	missense	NM_052899:p.R344S
12924	5	175958411	175958411	C	A	C	M	exonic	GPRIN1	missense	NM_052899:p.R344M
12924	5	176616548	176616548	G	A	G	R	intronic	NSD1	NA	NA
12924	5	178977143	178977143	C	G	C	S	exonic	HNRNPH1	missense	NM_005520:p.M345I
12924	6	4661105	4661105	A	T	A	W	ncRNA	CDYL	NA	NA
12924	6	4661106	4661106	G	T	G	K	ncRNA	CDYL	NA	NA
12924	6	10047536	10047536	C	T	C	Y	intergenic	NA	NA	NA
12924	6	21339140	21339140	G	C	G	S	exonic	CDKAL1	missense	NM_017774:p.R544T
12924	6	25957866	25957866	C	T	C	Y	intronic	SLC17A3	NA	NA
12924	6	27813648	27813648	G	A	G	R	intergenic	NA	NA	NA
12924	6	29344566	29344566	C	A	C	M	intergenic	NA	NA	NA
12924	6	29473063	29473063	C	A	C	M	exonic	OR12D2	missense	NM_013936:p.T203K
12924	6	31595936	31595936	C	A	C	M	intergenic	NA	NA	NA
12924	6	31657503	31657503	G	T	G	K	intronic	LTB	NA	NA
12924	6	33025633	33025633	C	A	C	M	exonic	HLA-DMA	missense	NM_006120:p.A129S
12924	6	36214580	36214580	-	G	A	*/+G	intronic	MAPK13	NA	NA
12924	6	36214582	36214582	A	G	A	R	intronic	MAPK13	NA	NA
12924	6	36674590	36674590	C	G	C	S	intronic	SRSF3	NA	NA
12924	6	39991938	39991938	C	G	C	S	exonic	MOCS1	silent	NM_005943:p.L145L
12924	6	42345060	42345060	C	A	C	M	exonic	TRERF1	nonsense	NM_033502:p.G83X
12924	6	42345061	42345061	C	A	C	M	exonic	TRERF1	missense	NM_033502:p.Q82H
12924	6	43043264	43043264	C	A	C	M	exonic	PEX6	missense	NM_000287:p.M568I
12924	6	43043265	43043265	A	T	A	W	exonic	PEX6	missense	NM_000287:p.M568K
12924	6	43751113	43751113	C	A	C	M	intronic	MRPS18A	NA	NA
12924	6	50973618	50973618	C	G	C	S	intergenic	NA	NA	NA
12924	6	53354892	53354892	A	C	A	M	intergenic	NA	NA	NA
12924	6	64453671	64453671	A	T	A	W	exonic	PHF3	missense	NM_015153:p.I697L
12924	6	70934808	70934808	C	A	C	M	exonic	COL19A1	missense	NM_001858:p.P841T
12924	6	74233122	74233122	A	T	A	W	intronic	MTO1	NA	NA
12924	6	80834594	80834594	C	A	C	M	intergenic	NA	NA	NA

12924	6	83955020	83955020	T	G	T	K	intronic	PGM3	NA	NA
12924	6	94022361	94022361	T	C	T	Y	exonic	EPHA7	missense	NM_004440:p.N763S
12924	6	105883473	105883473	G	A	G	R	exonic	PREP	silent	NM_002726:p.V379V
12924	6	106756517	106756517	T	A	T	W	intronic	ATG5	NA	NA
12924	6	108349652	108349652	C	A	C	M	intronic	SEC63	NA	NA
12924	6	122046862	122046862	G	A	G	R	intergenic	NA	NA	NA
12924	6	125638980	125638980	T	C	T	Y	UTR3	HDDC2	NA	NA
12924	6	127779604	127779604	G	A	G	R	intergenic	NA	NA	NA
12924	6	132227718	132227718	T	C	T	Y	exonic	ENPP1	missense	NM_006208:p.Y371H
12924	6	132980509	132980509	C	A	C	M	exonic	TAAR2	missense	NM_001033080:p.G177W
12924	6	133231238	133231238	G	A	G	R	intergenic	NA	NA	NA
12924	6	136510209	136510209	C	A	C	M	exonic	PDE7B	missense	NM_018945:p.T65N
12924	6	144224925	144224925	G	T	G	K	intronic	LTV1	NA	NA
12924	6	144851501	144851501	G	-	A	*/-G	splicing	UTRN	NA	NA
12924	6	149011202	149011202	A	T	A	W	intergenic	NA	NA	NA
12924	6	149011213	149011213	C	G	C	S	intergenic	NA	NA	NA
12924	6	151936038	151936038	G	T	G	K	exonic	C6orf97	nonsense	NM_025059:p.E271X
12924	6	152813931	152813931	G	T	G	K	exonic	SYNE1	silent	NM_182961:p.R1044R
12924	6	161124024	161124024	G	C	G	S	intergenic	NA	NA	NA
12924	6	161889863	161889863	G	A	G	R	intronic	PARK2	NA	NA
12924	7	2616171	2616171	G	T	G	K	intronic	IQCE	NA	NA
12924	7	10458811	10458811	C	A	C	M	intergenic	NA	NA	NA
12924	7	12477716	12477716	G	C	G	S	intergenic	NA	NA	NA
12924	7	20749080	20749080	G	T	G	K	exonic	ABCB5	missense	NM_001163941:p.R1027L
12924	7	30784587	30784587	A	T	A	W	exonic	FAM188B	silent	NM_032222:p.T26T
12924	7	31109409	31109409	A	G	A	R	exonic	ADCYAP1R1	silent	NM_001118:p.P360P
12924	7	36638166	36638166	C	T	C	Y	splicing	AOAH	NA	NA
12924	7	41971302	41971302	C	A	C	M	exonic	GLI3	silent	NM_000168:p.P1298P
12924	7	42801731	42801731	G	C	G	S	intergenic	NA	NA	NA
12924	7	44766692	44766692	C	G	C	S	exonic	ZMIZ2	silent	NM_031449:p.L405L
12924	7	50564455	50564455	G	C	G	S	exonic	DDC	missense	NM_000790:p.P172R
12924	7	50653182	50653182	T	G	T	K	intronic	GRB10	NA	NA
12924	7	51062921	51062921	C	A	C	M	exonic	COBL	silent	NM_015198:p.G1122G
12924	7	51062922	51062922	C	A	C	M	exonic	COBL	missense	NM_015198:p.G1122V
12924	7	55878271	55878271	T	A	T	W	exonic	14-Sep	missense	NM_207366:p.Y139F
12924	7	57221979	57221979	A	T	A	W	intergenic	NA	NA	NA
12924	7	57346563	57346563	C	T	C	Y	intergenic	NA	NA	NA
12924	7	63113040	63113040	C	A	C	M	intergenic	NA	NA	NA
12924	7	63806231	63806231	C	T	C	Y	exonic	ZNF107	missense	NM_016220:p.S705L
12924	7	72348814	72348814	C	A	C	M	intergenic	NA	NA	NA
12924	7	80123924	80123924	G	T	G	K	exonic	CD36	missense	NM_000072:p.V85F
12924	7	82835117	82835117	G	T	G	K	exonic	SEMA3E	missense	NM_001178129:p.N623K
12924	7	91550779	91550779	G	C	G	S	exonic	AKAP9	missense	NM_005751:p.L2840F
12924	7	98999458	98999458	A	G	R	Y	exonic	ZNF655	missense	NM_001009958:p.S58N
12924	7	107429315	107429315	C	T	C	Y	exonic	LAMB1	missense	NM_002291:p.R46Q
12924	7	116691853	116691853	A	G	A	R	intergenic	NA	NA	NA
12924	7	124773416	124773416	C	T	C	Y	intergenic	NA	NA	NA
12924	7	128886638	128886638	G	T	G	K	exonic	FAM40B	missense	NM_001134336:p.S462I
12924	7	140960439	140960439	A	C	A	M	exonic	AGK	missense	NM_018238:p.T139P
12924	7	142181685	142181685	C	A	C	M	intronic	PRSS2	NA	NA
12924	7	150446399	150446399	C	T	C	Y	intronic	AGAP3	NA	NA
12924	7	150552060	150552060	C	T	C	Y	exonic	ABCF2	silent	NM_007189:p.L147L
12924	7	156219709	156219709	A	G	A	R	exonic	LMBR1	missense	NM_022458:p.L254P
12924	8	655883	655883	C	A	C	M	exonic	ERICH1	missense	NM_207332:p.Q49H
12924	8	10507986	10507986	G	A	G	R	exonic	RP11L	silent	NM_178857:p.G344G
12924	8	12996689	12996689	T	A	T	W	exonic	DLC1	missense	NM_006094:p.E722V
12924	8	19863964	19863964	G	A	G	R	exonic	LPL	missense	NM_000237:p.V461I
12924	8	23051360	23051360	C	A	C	M	exonic	TNFRSF10D	missense	NM_003840:p.D377Y
12924	8	30481518	30481518	C	G	C	S	intronic	RBPMS	NA	NA
12924	8	3521564	3521564	C	A	C	M	intronic	UNC5D	NA	NA
12924	8	73104745	73104745	A	T	A	W	exonic	TRPA1	missense	NM_007332:p.V961D
12924	8	80646325	80646325	G	T	G	K	intergenic	NA	NA	NA
12924	8	82876237	82876237	C	A	C	M	UTR3	SNX16	NA	NA
12924	8	86716993	86716993	C	G	C	S	intergenic	NA	NA	NA
12924	8	87311127	87311127	G	T	G	K	exonic	SLC7A13	missense	NM_138817:p.L166M
12924	8	99286473	99286473	C	A	C	M	intronic	NIPAL2	NA	NA
12924	8	104005180	104005180	G	A	G	R	intergenic	NA	NA	NA
12924	8	104741001	104741001	T	G	T	K	intronic	RIMS2	NA	NA
12924	8	107792181	107792181	G	T	G	K	exonic	OXR1	missense	NM_018002:p.V594L
12924	8	111054016	111054016	C	A	C	M	exonic	KCNV1	missense	NM_014379:p.G213V
12924	8	113638271	113638271	G	T	G	K	exonic	CSMD3	silent	NM_198123:p.I1377I
12924	8	113771500	113771500	A	G	A	R	intronic	CSMD3	NA	NA
12924	8	114057708	114057708	A	C	A	M	intronic	CSMD3	NA	NA
12924	8	125127165	125127165	C	T	C	Y	intronic	FER1L6	NA	NA
12924	8	131931118	131931118	C	G	C	S	exonic	ADCY8	missense	NM_001115:p.C775S
12924	8	133968378	133968378	G	C	G	S	exonic	TG	missense	NM_003235:p.D527H
12924	8	133968397	133968397	G	T	G	K	exonic	TG	missense	NM_003235:p.G533V
12924	8	134176567	134176567	C	A	C	M	exonic	TG	missense	NM_003235:p.S2446Y
12924	8	139224537	139224537	G	A	G	R	intronic	FAM135B	NA	NA

12924	8	141611768	141611768	T	A	T	W	exonic	EIF2C2	silent	NM_012154:p.P800P
12924	9	6318795	6318795	C	A	C	M	exonic	TPD52L3	missense	NM_001001875:p.T67N
12924	9	13976581	13976581	A	T	A	W	intergenic	NA	NA	NA
12924	9	14652206	14652206	T	C	T	Y	intronic	ZDHHC21	NA	NA
12924	9	32478060	32478060	G	C	G	S	exonic	DDX58	missense	NM_014314:p.I365M
12924	9	34986278	34986278	T	A	T	W	exonic	DNAJB5	silent	NM_001135004:p.G110G
12924	9	67903405	67903405	G	T	G	K	intergenic	NA	NA	NA
12924	9	68120493	68120493	T	C	T	Y	ncRNA	LOC1001323	NA	NA
12924	9	73394305	73394305	G	A	G	R	intergenic	NA	NA	NA
12924	9	96386643	96386643	C	T	C	Y	intronic	FBP2	NA	NA
12924	9	98054994	98054994	A	T	A	W	exonic	HSD17B3	missense	NM_000197:p.S99R
12924	9	102042229	102042229	G	T	G	K	exonic	INVS	missense	NM_183245:p.A228S
12924	9	107158366	107158366	G	T	G	K	exonic	SLC44A1	missense	NM_080546:p.A185S
12924	9	107398653	107398653	A	T	A	W	intronic	FKTN	NA	NA
12924	9	110664742	110664742	G	A	G	R	exonic	ACTL7A	missense	NM_006687:p.A107T
12924	9	128197599	128197599	G	A	G	R	intronic	FAM125B	NA	NA
12924	9	133066956	133066956	A	G	A	R	intronic	NUP214	NA	NA
12924	9	138516312	138516312	C	A	C	M	exonic	NOTCH1	nonsense	NM_017617:p.E1812X
12924	9	139578715	139578715	T	A	T	W	exonic	WDR85	missense	NM_138778:p.K314M
12924	10	1056809	1056809	G	T	G	K	exonic	IDI2	missense	NM_033261:p.H88Q
12924	10	6546296	6546296	T	A	T	W	exonic	PRKCQ	missense	NM_006257:p.D477V
12924	10	14856374	14856374	C	A	C	M	exonic	FAM107B	missense	NM_031453:p.A99S
12924	10	17211213	17211213	C	A	C	M	exonic	CUBN	silent	NM_001081:p.T55T
12924	10	18282459	18282459	G	A	G	R	exonic	SLC39A12	missense	NM_152725:p.G83E
12924	10	21999614	21999614	G	T	G	K	exonic	MLLT10	silent	NM_001009569:p.V342V
12924	10	24914280	24914280	C	G	C	S	exonic	ARHGAP21	missense	NM_020824:p.L1648F
12924	10	45507501	45507501	C	A	C	M	intergenic	NA	NA	NA
12924	10	51219559	51219559	G	T	G	K	UTR5	MSMB	NA	NA
12924	10	53128238	53128238	G	A	G	R	exonic	CSTF2T	nonsense	NM_015235:p.Q360X
12924	10	60243792	60243792	G	A	G	R	intronic	BICC1	NA	NA
12924	10	65600053	65600053	G	C	G	S	intergenic	NA	NA	NA
12924	10	66599443	66599443	C	T	C	Y	intergenic	NA	NA	NA
12924	10	67418483	67418483	A	T	A	W	exonic	CTNNA3	missense	NM_013266:p.D746E
12924	10	68051428	68051428	C	G	C	S	intronic	CTNNA3	NA	NA
12924	10	69572807	69572807	C	A	C	M	exonic	MYPN	missense	NM_032578:p.T336K
12924	10	70177149	70177149	A	G	A	R	exonic	CCAR1	missense	NM_018237:p.T216A
12924	10	70695406	70695406	C	A	C	M	exonic	HKDC1	missense	NM_025130:p.T811K
12924	10	74362246	74362246	G	A	G	R	exonic	OIT3	silent	NM_152635:p.Q532Q
12924	10	87474302	87474302	C	G	C	S	exonic	GRID1	missense	NM_017551:p.E549Q
12924	10	96437927	96437927	G	T	G	K	exonic	CYP2C18	missense	NM_001128925:p.M129I
12924	10	96524755	96524755	A	G	A	R	intronic	CYP2C19	NA	NA
12924	10	99351673	99351673	G	A	G	R	exonic	DHAPSL	missense	NM_138413:p.C257Y
12924	10	118349706	118349706	C	T	C	Y	intronic	PNLIPRP1	NA	NA
12924	10	134874980	134874980	G	T	G	K	exonic	KNDC1	missense	NM_152643:p.A1325S
12924	10	135195323	135195323	G	T	G	K	intronic	CYP2E1	NA	NA
12924	11	4747630	4747630	G	T	G	K	exonic	OR51F1	missense	NM_001004752:p.P32T
12924	11	4901472	4901472	C	A	C	M	exonic	OR51G1	missense	NM_001005237:p.R225L
12924	11	5037138	5037138	C	T	C	Y	exonic	OR52E2	missense	NM_001005164:p.C99Y
12924	11	5098745	5098745	G	T	G	K	exonic	OR52A4	missense	NM_001005222:p.L214I
12924	11	5755928	5755928	C	A	C	M	exonic	OR52N5	missense	NM_001001922:p.L171F
12924	11	6201812	6201812	C	A	C	M	exonic	FAM160A2	silent	NM_032127:p.R127R
12924	11	13335039	13335039	C	A	C	M	intronic	ARNTL	NA	NA
12924	11	18174792	18174792	G	C	G	S	intergenic	NA	NA	NA
12924	11	25566690	25566690	G	T	G	K	intergenic	NA	NA	NA
12924	11	26525602	26525602	G	T	G	K	exonic	ANO3	missense	NM_031418:p.L406F
12924	11	26676542	26676542	G	C	G	S	exonic	SLC5A12	nonsense	NM_178498:p.S313X
12924	11	32661771	32661771	C	T	C	Y	intronic	CCDC73	NA	NA
12924	11	36379333	36379333	C	T	C	Y	exonic	PRR5L	missense	NM_001160167:p.S29F
12924	11	36551982	36551982	C	A	C	M	exonic	RAG1	missense	NM_000448:p.H184Q
12924	11	44915651	44915651	C	A	C	M	intronic	TP53I11	NA	NA
12924	11	48588901	48588901	C	G	C	S	intergenic	NA	NA	NA
12924	11	49284056	49284056	C	A	C	M	intergenic	NA	NA	NA
12924	11	49876525	49876525	G	A	G	R	intergenic	NA	NA	NA
12924	11	54791804	54791804	C	A	C	M	intronic	TRIM48	NA	NA
12924	11	55870081	55870081	A	T	A	W	upstream	OR8K1	NA	NA
12924	11	56857003	56857003	C	A	C	M	intronic	SSRP1	NA	NA
12924	11	56857011	56857011	C	A	C	M	exonic	SSRP1	nonsense	NM_003146:p.E179X
12924	11	57873765	57873765	C	G	C	S	intergenic	NA	NA	NA
12924	11	57890016	57890016	C	G	C	S	intergenic	NA	NA	NA
12924	11	58358583	58358583	C	A	C	M	exonic	GLYATL2	silent	NM_145016:p.V260V
12924	11	58358584	58358584	A	C	A	M	exonic	GLYATL2	missense	NM_145016:p.V260G
12924	11	63782865	63782865	A	C	A	M	intronic	PLCB3	NA	NA
12924	11	65123444	65123444	G	T	G	K	exonic	MAP3K11	missense	NM_002419:p.R735S
12924	11	66214202	66214202	G	T	G	K	exonic	SPTBN2	silent	NM_006946:p.A1898A
12924	11	75741084	75741084	T	A	T	W	exonic	PRKRIR	missense	NM_004705:p.E253V
12924	11	88222759	88222759	G	C	G	S	exonic	GRM5	missense	NM_000842:p.R292G
12924	11	88551511	88551511	A	C	A	M	exonic	TYR	missense	NM_000372:p.T248P
12924	11	92354351	92354351	G	T	G	K	exonic	MTNR1B	missense	NM_005959:p.G105V
12924	11	104281477	104281477	C	G	C	S	ncRNA	LOC643733	NA	NA



12924	11	106203119	106203119	C	T	C	Y	intronic	GUCY1A2	NA	NA
12924	11	107179161	107179161	G	T	G	K	intronic	SLC35F2	NA	NA
12924	11	113440281	113440281	C	T	C	Y	exonic	ZBTB16	missense	NM_001018011:p.S350F
12924	11	118690910	118690910	G	T	G	K	exonic	MCAM	silent	NM_006500:p.G81G
12924	11	122280229	122280229	G	T	G	K	exonic	C11orf63	missense	NM_199124:p.R244L
12924	11	123398954	123398954	G	A	G	R	exonic	OR10G9	missense	NM_001001953:p.A9T
12924	11	123757562	123757562	G	A	G	R	exonic	OR8B2	silent	NM_001005468:p.V296V
12924	11	123945084	123945084	G	A	G	R	upstream	OR8A1	NA	NA
12924	11	129257318	129257318	T	C	T	Y	intronic	NFRKB	NA	NA
12924	11	133618399	133618399	G	C	G	S	splicing	VPS26B	NA	NA
12924	12	532859	532859	C	A	C	M	exonic	B4GALNT3	silent	NM_173593:p.T503T
12924	12	3562638	3562638	G	A	G	R	intronic	PRMT8	NA	NA
12924	12	6618521	6618521	C	T	C	Y	intronic	ACRBP	NA	NA
12924	12	6650105	6650105	G	A	G	R	intronic	ZNF384	NA	NA
12924	12	7538969	7538969	A	G	A	R	exonic	CD163	silent	NM_004244:p.Y465Y
12924	12	7610627	7610627	C	A	C	M	intergenic	NA	NA	NA
12924	12	7914827	7914827	G	T	G	K	UTR5	SLC2A14	NA	NA
12924	12	8578698	8578698	T	G	T	K	intronic	CLEC4E	NA	NA
12924	12	9200159	9200159	A	G	A	R	intronic	P2P	NA	NA
12924	12	10133019	10133019	A	T	A	W	exonic	CLEC1A	missense	NM_016511:p.L62Q
12924	12	11913902	11913902	G	A	G	R	exonic	ETV6	silent	NM_001987:p.A247A
12924	12	15484217	15484217	T	G	T	K	intronic	PTPRO	NA	NA
12924	12	15631135	15631135	C	A	C	M	exonic	PTPRO	missense	NM_030668:p.T259N
12924	12	21339899	21339899	T	A	T	W	exonic	SLCO1A2	silent	NM_021094:p.I390I
12924	12	21358771	21358771	A	T	A	W	exonic	SLCO1A2	missense	NM_021094:p.L105Q
12924	12	25134435	25134435	C	T	C	Y	intronic	LRMP	NA	NA
12924	12	33762283	33762283	G	T	G	K	intergenic	NA	NA	NA
12924	12	36882252	36882252	G	T	G	K	intergenic	NA	NA	NA
12924	12	38954937	38954937	G	T	G	K	exonic	LRRK2	missense	NM_198578:p.G606C
12924	12	43752378	43752378	G	T	G	K	intergenic	NA	NA	NA
12924	12	50570772	50570772	T	A	T	W	exonic	ANKRD33	missense	NM_001130015:p.Y134N
12924	12	54995144	54995144	C	T	C	Y	intronic	CNPY2	NA	NA
12924	12	55134240	55134240	C	A	C	M	intronic	MIP	NA	NA
12924	12	70316946	70316946	C	A	C	M	exonic	ZFC3H1	missense	NM_144982:p.R629L
12924	12	77036028	77036028	C	T	C	Y	exonic	NAV3	missense	NM_014903:p.H954Y
12924	12	77036052	77036052	A	T	A	W	exonic	NAV3	nonsense	NM_014903:p.K962X
12924	12	77711972	77711972	G	A	G	R	intergenic	NA	NA	NA
12924	12	79763775	79763775	T	A	T	W	exonic	LIN7A	missense	NM_004664:p.E116D
12924	12	81775077	81775077	G	A	G	R	exonic	TMTC2	missense	NM_152588:p.G81R
12924	12	84800322	84800322	T	C	T	Y	UTR3	NTS	NA	NA
12924	12	87084352	87084352	G	A	G	R	exonic	TMTC3	nonsense	NM_181783:p.W304X
12924	12	99275387	99275387	G	T	G	K	exonic	SLC17A8	missense	NM_001145288:p.L29F
12924	12	102592062	102592062	G	T	G	K	intronic	STAB2	NA	NA
12924	12	105638841	105638841	C	A	C	M	intronic	RFX4	NA	NA
12924	12	107145090	107145090	C	A	C	M	intronic	WSCD2	NA	NA
12924	12	109652806	109652806	T	C	T	Y	exonic	PPP1CC	missense	NM_002710:p.Y110C
12924	12	119060141	119060141	G	A	G	R	exonic	GCN1L1	missense	NM_006836:p.P2114S
12924	12	126369007	126369007	C	T	C	Y	intergenic	NA	NA	NA
12924	12	126674865	126674865	G	T	G	K	intergenic	NA	NA	NA
12924	12	126676741	126676741	C	A	C	M	intergenic	NA	NA	NA
12924	13	20575300	20575300	C	A	C	M	intergenic	NA	NA	NA
12924	13	23958521	23958521	C	A	C	M	intronic	PARP4	NA	NA
12924	13	24322579	24322579	G	A	G	R	exonic	RNF17	missense	NM_031277:p.E1068K
12924	13	25049222	25049222	G	A	G	R	exonic	ATP8A2	missense	NM_016529:p.M576I
12924	13	31596542	31596542	G	T	G	K	intronic	FRY	NA	NA
12924	13	34947750	34947750	A	C	A	M	exonic	MAB21L1	missense	NM_005584:p.C176G
12924	13	38348391	38348391	G	T	G	K	exonic	FREM2	missense	NM_207361:p.D2806Y
12924	13	38349381	38349381	G	T	G	K	splicing	FREM2	NA	NA
12924	13	69212669	69212669	G	T	G	K	exonic	KLHL1	missense	NM_020866:p.P554T
12924	13	78323369	78323369	G	A	G	R	intergenic	NA	NA	NA
12924	13	78382412	78382412	-	A	C	*/+A	ncRNA	MIR548A2	NA	NA
12924	13	90581882	90581882	A	G	A	R	intergenic	NA	NA	NA
12924	13	98137885	98137885	C	G	C	S	exonic	SLC15A1	missense	NM_005073:p.C593S
12924	13	100512332	100512332	G	A	G	R	exonic	NALCN	missense	NM_052867:p.R1582C
12924	13	100518411	100518411	A	T	A	W	intronic	NALCN	NA	NA
12924	13	102241716	102241716	G	T	G	K	exonic	KDELC1	silent	NM_024089:p.S246S
12924	14	20066043	20066043	G	A	G	R	intergenic	NA	NA	NA
12924	14	22956241	22956241	G	A	G	R	exonic	MYH7	missense	NM_000257:p.H1494Y
12924	14	23593598	23593598	G	A	G	R	intronic	LRRC16B	NA	NA
12924	14	23616649	23616649	C	A	C	M	exonic	CPNE6	missense	NM_006032:p.P515H
12924	14	23915059	23915059	G	C	G	S	exonic	NFATC4	missense	NM_001136022:p.K719N
12924	14	50786021	50786021	G	T	G	K	exonic	TMX1	missense	NM_030755:p.G192V
12924	14	51692348	51692348	A	T	A	W	intergenic	NA	NA	NA
12924	14	59000288	59000288	G	A	G	R	exonic	GPR135	silent	NM_022571:p.C470C
12924	14	60030510	60030510	G	T	G	K	intergenic	NA	NA	NA
12924	14	62141986	62141986	T	C	T	Y	intergenic	NA	NA	NA
12924	14	66313014	66313014	C	T	C	Y	intronic	GPHN	NA	NA
12924	14	69314997	69314997	C	T	C	Y	exonic	SLC10A1	missense	NM_003049:p.C250Y
12924	14	70060165	70060165	G	T	G	K	exonic	ADAM20	missense	NM_003814:p.Q405K

12924	14	74043683	74043683	G	A	G	R	exonic	LTBP2	silent	NM_000428:p.L1287L
12924	14	75716811	75716811	G	T	G	K	intronic	C14orf118	NA	NA
12924	14	76345539	76345539	T	C	T	Y	exonic	ANGEL1	missense	NM_015305:p.S89G
12924	14	80321272	80321272	C	A	C	M	exonic	C14orf145	missense	NM_152446:p.R644L
12924	14	87477507	87477507	C	A	C	M	exonic	GALC	missense	NM_000153:p.V607F
12924	14	93113962	93113962	G	T	G	K	exonic	KIAA1409	missense	NM_020818:p.G568C
12924	14	94025772	94025772	T	C	T	Y	exonic	SERPINA12	missense	NM_173850:p.I331V
12924	14	94124007	94124007	G	T	G	K	exonic	SERPINA5	silent	NM_000624:p.V185V
12924	14	95883411	95883411	C	A	C	M	exonic	ATG2B	missense	NM_018036:p.E61D
12924	14	98252409	98252409	G	T	G	K	exonic	C14orf177	missense	NM_182560:p.S43I
12924	14	101097691	101097691	C	A	C	M	exonic	DIO3	silent	NM_001362:p.S35S
12924	15	23043560	23043560	C	A	C	M	upstream	SNORD115-1	NA	NA
12924	15	23498271	23498271	C	G	C	S	exonic	ATP10A	missense	NM_024490:p.G882A
12924	15	33032326	33032326	T	A	T	W	intronic	AQR	NA	NA
12924	15	38086513	38086513	C	G	C	S	exonic	EIF2AK4	missense	NM_001013703:p.P1121R
12924	15	38096102	38096102	G	T	G	K	exonic	EIF2AK4	missense	NM_001013703:p.K1289N
12924	15	38471381	38471381	C	T	C	Y	intronic	C15orf23	NA	NA
12924	15	41678398	41678398	G	T	G	K	exonic	CKMT1B	missense	NM_020990:p.G365C
12924	15	45840900	45840900	C	G	C	S	exonic	SEMA6D	missense	NM_153617:p.P143A
12924	15	51695685	51695685	C	T	C	Y	exonic	WDR72	silent	NM_182758:p.V670V
12924	15	53719158	53719158	A	G	A	R	exonic	PRTG	silent	NM_173814:p.N766N
12924	15	57632219	57632219	C	T	C	Y	intergenic	NA	NA	NA
12924	15	61424704	61424704	C	A	C	M	intronic	CA12	NA	NA
12924	15	62753289	62753289	A	T	A	W	exonic	ZNF609	missense	NM_015042:p.T395S
12924	15	63411498	63411498	C	A	C	M	splicing	IGDCC3	NA	NA
12924	15	68766961	68766961	C	A	C	M	exonic	UACA	missense	NM_001008224:p.D179Y
12924	15	69420898	69420898	A	T	A	W	intronic	THSD4	NA	NA
12924	15	70070541	70070541	C	T	C	Y	exonic	MYO9A	missense	NM_006901:p.R560H
12924	15	76811678	76811678	G	T	G	K	intergenic	NA	NA	NA
12924	15	77542569	77542569	C	G	C	S	exonic	KIAA1024	missense	NM_015206:p.L802V
12924	15	77639250	77639250	C	A	C	M	intergenic	NA	NA	NA
12924	15	78659992	78659992	G	C	G	S	intronic	ARNT2	NA	NA
12924	15	81723674	81723674	C	A	C	M	exonic	BNC1	missense	NM_001717:p.V445L
12924	15	89293692	89293692	G	A	G	R	intronic	UNC45A	NA	NA
12924	16	4768002	4768002	T	A	T	W	splicing	12-Sep	NA	NA
12924	16	5260514	5260514	G	T	G	K	intergenic	NA	NA	NA
12924	16	11737413	11737413	C	A	C	M	exonic	TXNDC11	missense	NM_015914:p.R144S
12924	16	20350163	20350163	C	A	C	M	intronic	ACSM5	NA	NA
12924	16	20555657	20555657	C	T	C	Y	exonic	ACSM1	missense	NM_052956:p.D402N
12924	16	27053619	27053619	G	C	G	S	intergenic	NA	NA	NA
12924	16	31674398	31674398	T	A	T	W	intronic	ZNF720	NA	NA
12924	16	33859797	33859797	T	C	T	Y	intergenic	NA	NA	NA
12924	16	45175061	45175061	C	T	C	Y	exonic	SHCBP1	missense	NM_024745:p.D521N
12924	16	45263815	45263815	T	C	T	Y	exonic	VPS35	missense	NM_018206:p.N411D
12924	16	46699933	46699933	G	T	G	K	exonic	ABCC12	missense	NM_033226:p.H764N
12924	16	48227134	48227134	G	C	G	S	exonic	ZNF423	missense	NM_015069:p.R1144G
12924	16	49303492	49303492	G	A	G	R	exonic	NOD2	silent	NM_022162:p.P723P
12924	16	54166097	54166097	G	A	G	R	exonic	LPCAT2	silent	NM_017839:p.L423L
12924	16	54457380	54457380	C	A	C	M	exonic	CES7	missense	NM_001190158:p.S263I
12924	16	54465390	54465390	A	C	A	M	exonic	CES7	missense	NM_001190158:p.V74G
12924	16	56158919	56158919	G	C	G	S	exonic	GPR114	missense	NM_153837:p.A246P
12924	16	56291488	56291488	G	A	G	R	intronic	CCDC135	NA	NA
12924	16	63564318	63564318	T	C	T	Y	exonic	CDH11	silent	NM_001797:p.A460A
12924	16	63564319	63564319	G	T	G	K	exonic	CDH11	missense	NM_001797:p.A460E
12924	16	68333960	68333960	G	A	G	R	exonic	NOB1	missense	NM_014062:p.H339Y
12924	16	68530848	68530848	G	C	G	S	intronic	WWP2	NA	NA
12924	16	70699899	70699899	G	T	G	K	exonic	DHX38	missense	NM_014003:p.K1049N
12924	16	70699900	70699900	G	T	G	K	exonic	DHX38	missense	NM_014003:p.D1050Y
12924	16	75958813	75958813	G	A	G	R	intronic	ADAMTS18	NA	NA
12924	16	76484132	76484132	C	A	C	M	intronic	VAT1L	NA	NA
12924	16	83077892	83077892	C	T	C	Y	exonic	KIAA1609	silent	NM_020947:p.L268L
12924	17	1465068	1465068	C	T	C	Y	exonic	SLC43A2	missense	NM_152346:p.A127T
12924	17	3540201	3540201	C	A	C	M	intronic	P2RX5	NA	NA
12924	17	7520196	7520196	G	-	C	*/-G	exonic	TP53	FS_del	NM_001126114:c.216_216delC
12924	17	7739310	7739310	C	T	C	Y	intronic	CHD3	NA	NA
12924	17	10253484	10253484	G	C	G	S	exonic	MYH8	silent	NM_002472:p.A578A
12924	17	10341200	10341200	C	A	C	M	exonic	MYH1	nonsense	NM_005963:p.G1523X
12924	17	10370759	10370759	G	A	G	R	exonic	MYH2	nonsense	NM_017534:p.Q1357X
12924	17	15905731	15905731	G	A	G	R	exonic	NCOR1	nonsense	NM_006311:p.Q1864X
12924	17	23058372	23058372	C	A	C	M	intergenic	NA	NA	NA
12924	17	36190261	36190261	C	A	C	M	intronic	KRT27	NA	NA
12924	17	40400505	40400505	G	C	G	S	exonic	C1QL1	silent	NM_006688:p.L146L
12924	17	42652427	42652427	G	T	G	K	intronic	MYL4	NA	NA
12924	17	43177084	43177084	C	G	C	S	intronic	TBX21	NA	NA
12924	17	50983799	50983799	T	A	T	W	intergenic	NA	NA	NA
12924	17	53627666	53627666	C	A	C	M	intronic	EPX	NA	NA
12924	17	55487620	55487620	C	A	C	M	intronic	HEATR6	NA	NA
12924	17	69797488	69797488	C	G	C	S	intronic	DNAI2	NA	NA
12924	17	69817009	69817009	G	T	G	K	exonic	DNAI2	missense	NM_001172810:p.D412Y

12924	17	70427668	70427668	G	A	G	R	exonic	USH1G	silent	NM_173477:p.A286A
12924	18	4681573	4681573	C	A	C	M	intergenic	NA	NA	NA
12924	18	4681574	4681574	A	T	A	W	intergenic	NA	NA	NA
12924	18	7070396	7070396	C	T	C	Y	exonic	LAMA1	missense	NM_005559:p.C41Y
12924	18	12065312	12065312	C	A	C	M	intergenic	NA	NA	NA
12924	18	14620849	14620849	G	C	G	S	intergenic	NA	NA	NA
12924	18	14786268	14786268	T	A	T	W	intronic	ANKRD30B	NA	NA
12924	18	15316010	15316010	C	A	C	M	upstream	LOC644669	NA	NA
12924	18	26927510	26927510	G	A	G	R	intronic	DSC2	NA	NA
12924	18	30652190	30652190	C	G	C	S	exonic	DTNA	missense	NM_001128175:p.C258W
12924	18	41573715	41573715	C	G	C	S	intronic	SLC14A1	NA	NA
12924	18	43820733	43820733	C	A	C	M	exonic	ZBTB7C	missense	NM_001039360:p.L248F
12924	18	64096570	64096570	C	T	C	Y	intergenic	NA	NA	NA
12924	18	67044502	67044502	G	T	G	K	intergenic	NA	NA	NA
12924	18	68356874	68356874	G	T	G	K	exonic	CBLN2	silent	NM_182511:p.T157T
12924	18	71126631	71126631	G	T	G	K	exonic	TSHZ1	missense	NM_005786:p.R49L
12924	18	71127923	71127923	G	T	G	K	exonic	TSHZ1	nonsense	NM_005786:p.E480X
12924	18	73091936	73091936	G	T	G	K	exonic	GALR1	silent	NM_001480:p.V148V
12924	19	3930985	3930985	C	G	C	S	exonic	EEF2	missense	NM_001961:p.D476H
12924	19	6630508	6630508	C	A	C	M	splicing	C3	NA	NA
12924	19	9054838	9054838	T	A	T	W	intergenic	NA	NA	NA
12924	19	10471422	10471422	G	C	G	S	exonic	KEAP1	missense	NM_012289:p.H96Q
12924	19	11624074	11624074	C	T	C	Y	intergenic	NA	NA	NA
12924	19	12619281	12619281	G	T	G	K	exonic	MAN2B1	missense	NM_000528:p.S932R
12924	19	12647319	12647319	C	G	C	S	intronic	WDR83	NA	NA
12924	19	15512319	15512319	C	A	C	M	exonic	CYP4F22	missense	NM_173483:p.Q244K
12924	19	15962161	15962161	C	T	C	Y	intergenic	NA	NA	NA
12924	19	18761034	18761034	G	T	G	K	exonic	COMP	missense	NM_000095:p.P155T
12924	19	19232687	19232687	C	T	C	Y	exonic	HAPLN4	missense	NM_023002:p.R140H
12924	19	19807219	19807219	G	T	G	K	intergenic	NA	NA	NA
12924	19	22659937	22659937	G	T	G	K	intergenic	NA	NA	NA
12924	19	23628706	23628706	C	A	C	M	exonic	ZNF675	missense	NM_138330:p.G290V
12924	19	23628707	23628707	C	A	C	M	exonic	ZNF675	missense	NM_138330:p.G290C
12924	19	40849551	40849551	G	C	G	S	upstream	UPK1A	NA	NA
12924	19	43779504	43779504	A	C	A	M	intronic	MAP4K1	NA	NA
12924	19	45700195	45700195	G	T	G	K	exonic	SPTBN4	missense	NM_020971:p.A382S
12924	19	47184390	47184390	G	A	G	R	intronic	ATP1A3	NA	NA
12924	19	48103881	48103881	C	A	C	M	intronic	PSG6	NA	NA
12924	19	48271296	48271296	T	C	T	Y	intronic	PSG2	NA	NA
12924	19	49425820	49425820	T	C	T	Y	intronic	ZNF227	NA	NA
12924	19	53229381	53229381	G	T	G	K	exonic	CABP5	silent	NM_019855:p.A133A
12924	19	54723532	54723532	C	T	C	Y	UTR5	RCN3	NA	NA
12924	19	55989586	55989586	C	-	G	*/-C	exonic	ACPT	FS_del	NM_033068:c.922_922delC
12924	19	56822517	56822517	G	T	G	K	intronic	SIGLEC5	NA	NA
12924	19	58360997	58360997	G	A	G	R	exonic	ZNF665	silent	NM_024733:p.V186V
12924	19	59417905	59417905	G	T	G	K	intronic	LILRB3	NA	NA
12924	19	59451800	59451800	C	A	C	M	exonic	LILRB5	missense	NM_006840:p.W191C
12924	19	59474020	59474020	T	A	T	W	exonic	LILRB2	silent	NM_005874:p.S388S
12924	19	59567834	59567834	-	A	G	*/+A	intronic	LAIR1	NA	NA
12924	19	59798780	59798780	G	C	G	S	intronic	LILRA1	NA	NA
12924	19	61394027	61394027	T	A	T	W	exonic	ZSCAN5B	nonsense	NM_001080456:p.K244X
12924	19	62438599	62438599	C	A	C	M	UTR3	AURKC	NA	NA
12924	19	63497398	63497398	G	T	G	K	exonic	ZNF8	missense	NM_021089:p.G138W
12924	20	2359613	2359613	T	A	T	W	exonic	TGM6	missense	NM_198994:p.V636E
12924	20	2724218	2724218	G	A	G	R	intronic	CPXM1	NA	NA
12924	20	3216517	3216517	-	C	A	*/+C	intronic	C20orf194	NA	NA
12924	20	3632037	3632037	G	T	G	K	exonic	SIGLEC1	silent	NM_023068:p.V345V
12924	20	24942664	24942664	G	T	G	K	exonic	ACSS1	missense	NM_032501:p.A462E
12924	20	25005005	25005005	G	T	G	K	exonic	VSX1	missense	NM_014588:p.S330R
12924	20	25028099	25028099	A	T	A	W	intergenic	NA	NA	NA
12924	20	32567892	32567892	G	T	G	K	UTR5	DYNLRB1	NA	NA
12924	20	33929861	33929861	A	G	A	R	intronic	PHF20	NA	NA
12924	20	34493939	34493939	C	-	G	*/-C	exonic	DLGAP4	FS_del	NM_014902:c.405_405delC
12924	20	36388015	36388015	G	T	G	K	intronic	BPI	NA	NA
12924	20	36601946	36601946	C	G	C	S	exonic	RALGAPB	silent	NM_020336:p.S831S
12924	20	40059380	40059380	C	A	C	M	intergenic	NA	NA	NA
12924	20	46565587	46565587	C	G	C	S	intergenic	NA	NA	NA
12924	20	47297294	47297294	C	T	C	Y	exonic	ZNFX1	missense	NM_021035:p.E1892K
12924	20	51305004	51305004	G	T	G	K	exonic	TSHZ2	missense	NM_173485:p.G534W
12924	20	54257266	54257266	C	T	C	Y	UTR5	MC3R	NA	NA
12924	20	59918890	59918890	C	A	C	M	exonic	CDH4	silent	NM_001794:p.P402P
12924	20	60773641	60773641	C	T	C	Y	exonic	SLCO4A1	missense	NM_016354:p.S707F
12924	21	9724484	9724484	A	G	A	R	intergenic	NA	NA	NA
12924	21	9736337	9736337	A	G	A	R	intergenic	NA	NA	NA
12924	21	9736347	9736347	C	A	C	M	intergenic	NA	NA	NA
12924	21	9741400	9741400	C	T	C	Y	intergenic	NA	NA	NA
12924	21	9743983	9743983	C	T	C	Y	intergenic	NA	NA	NA
12924	21	13935567	13935567	C	A	C	M	exonic	POTED	missense	NM_174981:p.L522I
12924	21	13970313	13970313	G	T	G	K	intergenic	NA	NA	NA

12924	21	23703003	23703003	G	A	G	R	intergenic	NA	NA	NA
12924	21	27224160	27224160	G	T	G	K	exonic	ADAMTS5	nonsense	NM_007038:p.S714X
12924	21	27237563	27237563	T	C	T	Y	intronic	ADAMTS5	NA	NA
12924	21	29988007	29988007	G	-	A	*/-G	intronic	GRIK1	NA	NA
12924	21	30719613	30719613	A	C	A	M	exonic	KRTAP13-3	nonsense	NM_181622:p.Y163X
12924	21	31041262	31041262	C	A	C	M	exonic	KRTAP21-2	nonsense	NM_181617:p.G44X
12924	21	32960303	32960303	C	G	C	S	exonic	SYN1	missense	NM_001160306:p.D651H
12924	21	36425261	36425261	A	T	A	W	intergenic	NA	NA	NA
12924	21	43774123	43774123	C	T	C	Y	exonic	HSF2BP	missense	NM_007031:p.R315H
12924	21	44212356	44212356	C	A	C	M	exonic	AGPAT3	missense	NM_001037553:p.L94I
12924	21	44662343	44662343	C	T	C	Y	exonic	TRPM2	silent	NM_003307:p.F1084F
12924	21	44824720	44824720	G	T	G	K	exonic	KRTAP10-5	missense	NM_198694:p.A55D
12924	22	15452999	15452999	G	T	G	K	exonic	CCT8L2	missense	NM_014406:p.P148T
12924	22	20367502	20367502	C	T	C	Y	exonic	PPI2L	missense	NM_148176:p.S170F
12924	22	20994466	20994466	C	G	C	S	ncRNA	LOC96610	NA	NA
12924	22	29628356	29628356	G	T	G	K	intronic	OSBP2	NA	NA
12924	22	36658674	36658674	G	T	G	K	intronic	MICALL1	NA	NA
12924	22	39079039	39079039	G	T	G	K	exonic	ADSL	missense	NM_001123378:p.R125I
12924	22	39135386	39135386	G	A	G	R	intronic	SGSM3	NA	NA
12924	22	40082417	40082417	G	T	G	K	exonic	ZC3H7B	silent	NM_017590:p.A836A
12924	22	49062422	49062422	G	T	G	K	exonic	PLXNB2	silent	NM_012401:p.L1111L
12924	X	16080634	16080634	C	G	C	S	exonic	GRPR	missense	NM_005314:p.S367C
12924	X	18876904	18876904	C	A	C	M	intronic	PHKA2	NA	NA
12924	X	36072955	36072955	G	T	G	K	UTR3	CXorf59	NA	NA
12924	X	41087939	41087939	G	T	G	K	exonic	DDX3X	nonsense	NM_001193416:p.G229X
12924	X	46954012	46954012	A	T	A	W	exonic	UBA1	missense	NM_003334:p.N662I
12924	X	48535784	48535784	C	A	C	M	exonic	GATA1	missense	NM_002049:p.Q237K
12924	X	48535785	48535785	A	G	A	R	exonic	GATA1	missense	NM_002049:p.Q237R
12924	X	52657364	52657364	C	A	C	M	intergenic	NA	NA	NA
12924	X	54803020	54803020	G	T	G	K	exonic	ITIH5L	silent	NM_198510:p.S323S
12924	X	54803021	54803021	G	T	G	K	exonic	ITIH5L	missense	NM_198510:p.S323Y
12924	X	54992182	54992182	C	A	C	M	intronic	PFKFB1	NA	NA
12924	X	55676285	55676285	G	C	G	S	intergenic	NA	NA	NA
12924	X	65212380	65212380	G	A	G	R	intergenic	NA	NA	NA
12924	X	70389164	70389164	C	A	C	M	splicing	ZMYM3	nonsense	NM_001171163:p.G223X
12924	X	72350886	72350886	C	T	C	Y	exonic	NAP1L2	silent	NM_021963:p.G56G
12924	X	79859717	79859717	T	A	T	W	intronic	BRWD3	NA	NA
12924	X	83014789	83014789	A	T	A	W	exonic	CYLC1	silent	NM_021118:p.A139A
12924	X	83258801	83258801	C	G	C	S	exonic	RPS6KA6	missense	NM_014496:p.G291A
12924	X	111511395	111511395	G	C	G	S	UTR5	ZCCHC16	NA	NA
12924	X	113529793	113529793	G	T	G	K	intergenic	NA	NA	NA
12924	X	114154545	114154545	T	A	T	W	intronic	IL13RA2	NA	NA
12924	X	129012516	129012516	C	A	C	M	intronic	BCORL1	NA	NA
12924	X	129346408	129346408	C	T	C	Y	exonic	GPR119	missense	NM_178471:p.G232E
12924	X	133984040	133984040	C	T	C	Y	exonic	FAM127C	missense	NM_001078173:p.R39Q
12924	X	134601998	134601998	T	G	T	K	intergenic	NA	NA	NA
12924	X	135701606	135701606	G	T	G	K	intergenic	NA	NA	NA
12924	X	141118612	141118612	T	G	T	K	exonic	MAGEC2	missense	NM_016249:p.K276N
12924	X	146120131	146120131	C	A	C	M	upstream;do	MIR506	NA	NA
12924	X	153388977	153388977	C	A	C	M	exonic	FAM3A	nonsense	NM_001171133:p.E104X
12924	Y	8204690	8204690	C	G	C	S	intergenic	NA	NA	NA
12924	Y	10594641	10594641	G	A	G	R	intergenic	NA	NA	NA
12924	Y	12033052	12033052	A	T	A	W	intergenic	NA	NA	NA
12924	Y	12154834	12154834	A	G	A	R	intergenic	NA	NA	NA
12924	Y	12154839	12154839	C	A	C	M	intergenic	NA	NA	NA
12924	Y	12602732	12602732	G	T	G	K	intergenic	NA	NA	NA
12924	M	15052	15052	T	C	T	Y	upstream	MIR1974	NA	NA
13280	1	2609387	2609387	C	A	C	M	intergenic	NA	NA	NA
13280	1	3639260	3639260	C	T	C	Y	exonic	TP73	silent	NM_001126240:p.T507T
13280	1	20699731	20699731	A	C	A	M	UTR3	MUL1	NA	NA
13280	1	20912629	20912629	C	G	C	S	exonic	KIF17	missense	NM_001122819:p.E129Q
13280	1	31210266	31210266	C	A	C	M	exonic	PUM1	missense	NM_014676:p.S722I
13280	1	31210269	31210269	G	A	G	R	exonic	PUM1	missense	NM_014676:p.S721L
13280	1	35142875	35142875	G	T	G	K	exonic	DLGAP3	missense	NM_001080418:p.H233N
13280	1	42976740	42976740	G	T	G	K	exonic	CLDN19	missense	NM_001185117:p.D109E
13280	1	52061820	52061820	A	T	A	W	intronic	NRD1	NA	NA
13280	1	71645761	71645761	A	T	A	W	exonic	NEGR1	missense	NM_173808:p.S341T
13280	1	75452082	75452082	A	G	A	R	intronic	SLC44A5	NA	NA
13280	1	75452968	75452968	C	G	C	S	intronic	SLC44A5	NA	NA
13280	1	93374877	93374877	T	C	T	Y	exonic	MTF2	missense	NM_001164392:p.L439S
13280	1	94259875	94259875	C	A	C	M	intronic	ABCA4	NA	NA
13280	1	94270130	94270130	C	G	C	S	exonic	ABCA4	missense	NM_000350:p.R1307T
13280	1	99191312	99191312	C	T	C	Y	exonic	LPFR5	missense	NM_001010861:p.E175K
13280	1	99246382	99246382	T	G	T	K	ncRNA	LOC1001296	NA	NA
13280	1	109285619	109285619	C	T	C	Y	exonic	CLCC1	missense	NM_015127:p.E193K
13280	1	148953283	148953283	C	G	C	S	intronic	HORMAD1	NA	NA
13280	1	148953757	148953757	C	G	C	S	exonic	HORMAD1	missense	NM_032132:p.R67T
13280	1	152995105	152995105	C	G	C	S	intronic	KCNN3	NA	NA
13280	1	153280704	153280704	C	T	C	Y	exonic	DCST1	missense	NM_152494:p.N247Y

13280	1	153451143	153451143	C	A	C	M	ncRNA	GBAP1	NA	NA
13280	1	154831952	154831952	C	T	C	Y	exonic	GPATCH4	missense	NM_015590:p.E269K
13280	1	157180366	157180366	A	G	A	R	exonic	PYHIN1	missense	NM_198929:p.M389V
13280	1	158518873	158518873	C	A	C	M	exonic	PEX19	missense	NM_002857:p.K130N
13280	1	158655694	158655694	C	T	C	Y	exonic	VANGL2	silent	NM_020335:p.L157L
13280	1	175006868	175006868	G	-	T	*/-G	exonic	PAPPA2	FS_del	NM_020318:c.4644_4644delG
13280	1	177307680	177307680	G	T	G	K	exonic	FAM20B	silent	NM_014864:p.V336V
13280	1	178507237	178507237	G	A	G	R	exonic	LHX4	missense	NM_033343:p.R184Q
13280	1	181117302	181117302	A	G	A	R	exonic	DHX9	missense	NM_001357:p.I937M
13280	1	183410883	183410883	A	T	A	W	intronic	C1orf26	NA	NA
13280	1	188517414	188517414	C	T	C	Y	exonic	FAM5C	missense	NM_199051:p.R109H
13280	1	195580164	195580164	C	A	C	M	exonic	CRB1	silent	NM_201253:p.L261L
13280	1	209100382	209100382	C	A	C	M	intronic	KCNH1	NA	NA
13280	1	214917269	214917269	G	A	G	R	exonic	ESRRG	missense	NM_001438:p.P82S
13280	1	222566087	222566087	G	-	A	*/-G	intronic	NVL	NA	NA
13280	1	226399860	226399860	G	A	G	R	exonic	GUK1	silent	NM_000858:p.V8V
13280	1	240330685	240330685	T	C	T	Y	exonic	PLD5	missense	NM_152666:p.E329G
13280	1	245080083	245080083	C	G	C	S	exonic	AHCTF1	missense	NM_015446:p.E1959Q
13280	1	245080115	245080115	C	G	C	S	exonic	AHCTF1	missense	NM_015446:p.R1948T
13280	1	245460639	245460639	G	C	G	S	intergenic	NA	NA	NA
13280	1	245655537	245655537	G	T	G	K	intronic	NLRP3	NA	NA
13280	1	246071303	246071303	C	G	C	S	exonic	OR11L1	missense	NM_001001959:p.Q173H
13280	1	246592117	246592117	G	T	G	K	exonic	OR2T4	silent	NM_001004696:p.R204R
13280	2	8794421	8794421	C	G	C	S	intronic	KIDINS220	NA	NA
13280	2	27599042	27599042	G	A	G	R	intronic	GCKR	NA	NA
13280	2	29460306	29460306	C	A	C	M	intronic	ALK	NA	NA
13280	2	29996425	29996425	C	A	C	M	exonic	ALK	missense	NM_004304:p.G202V
13280	2	31901701	31901701	C	T	C	Y	intergenic	NA	NA	NA
13280	2	33425902	33425902	G	C	G	S	intronic	LTBP1	NA	NA
13280	2	36823862	36823862	G	T	G	K	exonic	VIT	silent	NM_001177971:p.V78V
13280	2	39115934	39115934	C	G	C	S	exonic	SOS1	missense	NM_005633:p.E333Q
13280	2	40220027	40220027	C	G	C	S	intronic	SLC8A1	NA	NA
13280	2	41931104	41931104	G	A	G	R	intergenic	NA	NA	NA
13280	2	45022962	45022962	C	T	C	Y	exonic	SIX3	missense	NM_005413:p.A72V
13280	2	48662902	48662902	A	G	A	R	exonic	STON1	silent	NM_006873:p.E542E
13280	2	58164708	58164708	T	C	T	Y	intronic	VRK2	NA	NA
13280	2	61670260	61670260	C	A	C	M	intergenic	NA	NA	NA
13280	2	64175776	64175776	T	C	T	Y	exonic	PEL1	missense	NM_020651:p.E274G
13280	2	65150359	65150359	G	A	G	R	exonic	CEP68	missense	NM_015147:p.E93K
13280	2	65150368	65150368	G	C	G	S	exonic	CEP68	missense	NM_015147:p.E96Q
13280	2	74609738	74609738	G	T	G	K	intronic	AUP1	NA	NA
13280	2	79239162	79239162	T	C	T	Y	intronic	REG3A	NA	NA
13280	2	84858731	84858731	T	A	T	W	intronic	DNAH6	NA	NA
13280	2	86179376	86179376	G	C	G	S	exonic	POLR1A	missense	NM_015425:p.R101G
13280	2	88780674	88780674	G	A	G	R	exonic	RPIA	missense	NM_144563:p.V127I
13280	2	90961703	90961703	G	T	G	K	intergenic	NA	NA	NA
13280	2	98821013	98821013	C	G	C	S	splicing	C2orf55	NA	NA
13280	2	105258550	105258550	G	C	G	S	exonic	TGFBRAP1	missense	NM_001142621:p.R522G
13280	2	108260071	108260071	G	C	G	S	intergenic	NA	NA	NA
13280	2	132578256	132578256	C	A	C	M	intergenic	NA	NA	NA
13280	2	141175936	141175936	A	T	A	W	intronic	LRP1B	NA	NA
13280	2	144879021	144879021	A	G	A	R	exonic	ZEB2	silent	NM_014795:p.F148F
13280	2	162583965	162583965	G	A	G	R	intronic	DPP4	NA	NA
13280	2	179323204	179323204	T	A	T	W	exonic	TTN	missense	NM_133379:p.E4056D
13280	2	184180588	184180588	A	T	A	W	intergenic	NA	NA	NA
13280	2	190490552	190490552	G	T	G	K	intergenic	NA	NA	NA
13280	2	196457681	196457681	C	G	C	S	exonic	DNAH7	missense	NM_018897:p.S1879T
13280	2	200233437	200233437	G	A	G	R	intergenic	NA	NA	NA
13280	2	201178480	201178480	T	G	T	K	intronic	AOX1	NA	NA
13280	2	203469222	203469222	T	A	T	W	intronic	WDR12	NA	NA
13280	2	206983283	206983283	C	A	C	M	intergenic	NA	NA	NA
13280	2	211956900	211956900	A	T	A	W	exonic	ERBB4	missense	NM_005235:p.N1204K
13280	2	211959791	211959791	A	C	A	M	intronic	ERBB4	NA	NA
13280	2	215956475	215956475	C	G	C	S	intronic	FN1	NA	NA
13280	2	219598947	219598947	C	A	C	M	intronic	CCDC108	NA	NA
13280	2	221998980	221998980	T	A	T	W	UTR3	EPHA4	NA	NA
13280	2	227939019	227939019	G	T	G	K	intronic	TM4SF20	NA	NA
13280	2	233464435	233464435	C	G	C	S	exonic	NGEF	missense	NM_001114090:p.E291D
13280	3	634572	634572	A	G	A	R	intergenic	NA	NA	NA
13280	3	15588219	15588219	G	T	G	K	exonic	HACL1	missense	NM_012260:p.T352N
13280	3	15617957	15617957	G	T	G	K	exonic	HACL1	missense	NM_012260:p.F6L
13280	3	32907330	32907330	C	G	C	S	exonic	TRIM71	missense	NM_001039111:p.Q544E
13280	3	42656287	42656287	C	G	C	S	intronic	NKTR	NA	NA
13280	3	49338155	49338155	C	-	A	*/-C	splicing	USP4	NA	NA
13280	3	50120790	50120790	G	A	G	R	intronic	RBM5	NA	NA
13280	3	69130003	69130003	G	T	G	K	intronic	C3orf64	NA	NA
13280	3	74399116	74399116	T	C	T	Y	exonic	CNTN3	silent	NM_020872:p.T936T
13280	3	75785398	75785398	T	G	T	K	intergenic	NA	NA	NA
13280	3	87762376	87762376	C	G	C	S	intergenic	NA	NA	NA

13280	3	95296488	95296488	A	C	A	M	intronic	NSUN3	NA	NA	
13280	3	96857071	96857071	C	T	C	Y	intergenic	NA	NA	NA	
13280	3	114648157	114648157	C	A	C	M	exonic	SPICE1	missense	NM_144718:p.G828V	
13280	3	116132703	116132703	G	A	G	R	UTR5	ZBTB20	NA	NA	
13280	3	125527573	125527573	C	T	C	Y	exonic	KALRN	silent	NM_001024660:p.A381A	
13280	3	128823195	128823195	G	T	G	K	splicing	MCM2	NA	NA	
13280	3	130721560	130721560	C	T	C	Y	intronic	IFT122	NA	NA	
13280	3	130787518	130787518	C	T	C	Y	exonic	PLXND1	silent	NM_015103:p.L606L	
13280	3	137452053	137452053	G	A	G	R	exonic	PCCB	missense	NM_000532:p.G49E	
13280	3	139598894	139598894	C	T	C	Y	exonic	MRAS	missense	NM_001085049:p.R78W	
13280	3	139663636	139663636	A	G	A	R	exonic	ESYT3	silent	NM_031913:p.L271L	
13280	3	160026556	160026556	G	T	G	K	intronic	MFSD1	NA	NA	
13280	3	171133017	171133017	A	T	A	W	intronic	SAMD7	NA	NA	
13280	3	180803106	180803106	C	G	C	S	intronic	MRPL47	NA	NA	
13280	3	183661131	183661131	G	C	G	S	intergenic	NA	NA	NA	
13280	3	190190142	190190142	C	T	C	Y	intergenic	NA	NA	NA	
13280	3	190190164	190190164	A	C	A	M	intergenic	NA	NA	NA	
13280	3	194564733	194564733	G	T	G	K	exonic	ATP13A5	silent	NM_198505:p.R32R	
13280	3	198039803	198039803	A	G	A	R	UTR3	PAK2	NA	NA	
13280	4	2899686	2899686	C	G	C	S	intronic	ADD1	NA	NA	
13280	4	3210222	3210222	C	G	C	S	intronic	HTT	NA	NA	
13280	4	8995369	8995369	A	G	A	R	intergenic	NA	NA	NA	
13280	4	8999730	8999730	G	C	G	S	intergenic	NA	NA	NA	
13280	4	23424814	23424814	T	A	T	W	exonic	PPARGC1A	nonsense	NM_013261:p.K464X	
13280	4	28434168	28434168	C	A	C	M	intergenic	NA	NA	NA	
13280	4	38475393	38475393	T	C	T	Y	exonic	TLR1	silent	NM_003263:p.G485G	
13280	4	39085349	39085349	G	A	G	R	exonic	KLB	missense	NM_175737:p.D129N	
13280	4	89650180	89650180	G	A	G	R	intergenic	NA	NA	NA	
13280	4	119956108	119956108	G	T	G	K	exonic	SEC24D	missense	NM_014822:p.Q207K	
13280	4	123370741	123370741	C	T	C	Y	exonic	KIAA1109	missense	NM_015312:p.A1083V	
13280	4	151739762	151739762	T	C	T	Y	intronic	LRBA	NA	NA	
13280	4	175834929	175834929	C	A	C	M	exonic	GLRA3	missense	NM_006529:p.V268F	
13280	4	178497954	178497954	G	A	G	R	exonic	NEIL3	silent	NM_018248:p.Q217Q	
13280	4	185717565	185717565	C	T	C	Y	intergenic	NA	NA	NA	
13280	4	189161599	189161599	G	T	G	K	exonic	ZFP42	missense	NM_174900:p.R215L	
13280	4	191184253	191184253	C	A	C	M	intronic	FRG2	NA	NA	
13280	5	878334	878334	T	A	T	W	exonic	ZDHHC11	missense	NM_024786:p.K323M	
13280	5	948304	948304	A	T	A	W	intronic	TRIP13	NA	NA	
13280	5	14440669	14440669	C	G	C	S	exonic	TRIO	missense	NM_007118:p.F1231L	
13280	5	20340007	20340007	C	A	C	M	intergenic	NA	NA	NA	
13280	5	23340567	23340567	T	A	T	W	intergenic	NA	NA	NA	
13280	5	24206822	24206822	C	A	C	M	intergenic	NA	NA	NA	
13280	5	24206823	24206823	C	A	C	M	intergenic	NA	NA	NA	
13280	5	25945985	25945985	C	A	C	M	intergenic	NA	NA	NA	
13280	5	37369295	37369295	C	T	C	Y	intronic	NUP155	NA	NA	
13280	5	37369432	37369432	C	G	C	S	exonic	NUP155	missense	NM_153485:p.D470H	
13280	5	37369493	37369493	C	T	C	Y	splicing	NUP155	NA	NA	
13280	5	37373686	37373686	C	T	C	Y	exonic	NUP155	missense	NM_153485:p.M446I	
13280	5	37373739	37373739	C	T	C	Y	exonic	NUP155	missense	NM_153485:p.D429N	
13280	5	38993514	38993514	G	A	G	R	exonic	RICTOR	silent	NM_152756:p.H832H	
13280	5	41417931	41417931	T	C	T	Y	exonic	PLCXD3	missense	NM_001005473:p.Y189C	
13280	5	56651008	56651008	G	C	G	S	intergenic	NA	NA	NA	
13280	5	76065171	76065171	G	C	G	S	UTR3	F2R	NA	NA	
13280	5	76478723	76478723	T	A	T	W	ncRNA	LOC728723	NA	NA	
13280	5	108258165	108258165	G	T	G	K	intronic	FER	NA	NA	
13280	5	115233571	115233571	G	C	G	S	intronic	AP3S1	NA	NA	
13280	5	115348134	115348134	G	C	G	S	intronic	AQPEP	NA	NA	
13280	5	121215873	121215873	G	T	G	K	exonic	FTMT	missense	NM_177478:p.V106L	
13280	5	131350490	131350490	C	G	C	S	intronic	ACSL6	NA	NA	
13280	5	140208366	140208366	C	G	C	S	exonic	PCDHA9	silent	NM_031857:p.S34S	
13280	5	140208372	140208372	G	C	G	S	exonic	PCDHA9	silent	NM_031857:p.P36P	
13280	5	141013735	141013735	G	C	G	S	exonic	ARAP3	missense	NM_022481:p.T1534S	
13280	5	154376759	154376759	G	A	G	R	exonic	KIF4B	silent	NM_001099293:p.E1049E	
13280	5	154852368	154852368	T	A	T	W	intergenic	NA	NA	NA	
13280	5	159370413	159370413	G	A	G	R	exonic	TTC1	silent	NM_003314:p.L100L	
13280	5	178291635	178291635	G	T	G	K	exonic	ZFP2	nonsense	NM_030613:p.E239X	
13280	6	10803267	10803267	C	A	C	M	exonic	PAK1IP1	silent	NM_017906:p.P21P	
13280	6	27728664	27728664	G	C	G	S	intergenic	NA	NA	NA	
13280	6	29905728	29905728	C	A	C	M	intronic	HLA-G	NA	NA	
13280	6	31848758	31848758	T	A	T	W	exonic	C6orf27	missense	NM_025258:p.S347C	
13280	6	31851899	31851899	C	T	C	Y	exonic	C6orf27	missense	NM_025258:p.A112T	
13280	6	37555944	37555944	G	C	G	S	UTR3	FTSJD2	NA	NA	
13280	6	57119898	57119898	C	T	C	Y	exonic	ZNF451	silent	NM_015555:p.T352T	
13280	6	58554224	58554224	G	A	G	R	intergenic	NA	NA	NA	
13280	6	64048515	64048515	G	-	T	*/-G	exonic	LGSN	FS_del	NM_016571:c.900_900delC	
13280	6	70923343	70923343	G	C	G	S	intronic	COL19A1	NA	NA	
13280	6	90430930	90430930	G	T	G	K	exonic	MDN1	missense	NM_014611:p.Q4745K	
13280	6	105836362	105836362	G	A	G	R	exonic	PREP	missense	NM_002726:p.T597I	
13280	6	139651396	139651396	C	G	C	S	exonic	TXLN8	missense	NM_153235:p.E112Q	

13280	6	159130429	159130429	T	C	T	Y	intronic	EZR	NA	NA
13280	6	168188279	168188279	G	T	G	K	intronic	KIF25	NA	NA
13280	7	683601	683601	A	G	A	R	intronic	PRKAR1B	NA	NA
13280	7	2222476	2222476	G	A	G	R	intronic	MAD1L1	NA	NA
13280	7	35175683	35175683	T	A	T	W	intergenic	NA	NA	NA
13280	7	38467426	38467426	A	T	A	W	exonic	AMPH	missense	NM_139316:p.S333R
13280	7	57221810	57221810	A	C	A	M	intergenic	NA	NA	NA
13280	7	63239768	63239768	C	A	C	M	intergenic	NA	NA	NA
13280	7	71919040	71919040	C	T	C	Y	exonic	TYW1B	missense	NM_001145440:p.A129T
13280	7	73243502	73243502	A	G	A	R	intronic	EIF4H	NA	NA
13280	7	75797441	75797441	G	T	G	K	exonic	YWHAG	missense	NM_012479:p.L45M
13280	7	88802883	88802883	G	T	G	K	exonic	ZNF804B	missense	NM_181646:p.G884V
13280	7	100467744	100467744	C	G	C	S	exonic	MUC17	silent	NM_001040105:p.L2109L
13280	7	117219239	117219239	G	T	G	K	exonic	CTTNBP2	missense	NM_033427:p.A416D
13280	7	122125234	122125234	C	G	C	S	exonic	RNF133	silent	NM_139175:p.L325L
13280	7	123304181	123304181	G	A	G	R	exonic	HYAL4	silent	NM_012269:p.A394A
13280	7	123304420	123304420	C	T	C	Y	exonic	HYAL4	missense	NM_012269:p.A474V
13280	7	130799738	130799738	C	T	C	Y	intronic	MKLN1	NA	NA
13280	7	137025346	137025346	T	A	T	W	intronic	DGKI	NA	NA
13280	7	138744921	138744921	G	C	G	S	exonic	LUC7L2	missense	NM_016019:p.E254Q
13280	7	140146667	140146667	C	A	C	M	exonic	BRAF	missense	NM_004333:p.G315V
13280	7	150186968	150186968	C	A	C	M	exonic	ABP1	missense	NM_001091:p.N585K
13280	7	151566799	151566799	G	A	G	R	exonic	MLL3	missense	NM_170606:p.P860S
13280	7	151566804	151566804	C	A	C	M	exonic	MLL3	missense	NM_170606:p.W858L
13280	7	151918696	151918696	C	A	C	M	intergenic	NA	NA	NA
13280	7	158137879	158137879	C	G	C	S	exonic	NCAPG2	missense	NM_017760:p.G934A
13280	8	153191	153191	C	T	C	Y	ncRNA	RPL23AP53	NA	NA
13280	8	2076228	2076228	C	T	C	Y	intronic	MYOM2	NA	NA
13280	8	8271638	8271638	G	-	T	*/-G	exonic	SGK223	FS_del	NM_001080826:c.1691_1691delC
13280	8	13925242	13925242	T	C	T	Y	intergenic	NA	NA	NA
13280	8	26777838	26777838	G	A	G	R	exonic	ADRA1A	missense	NM_033303:p.A189V
13280	8	29545819	29545819	G	T	G	K	intergenic	NA	NA	NA
13280	8	49044897	49044897	G	T	G	K	intronic	MCM4	NA	NA
13280	8	52908782	52908782	G	T	G	K	exonic	PCMTD1	missense	NM_052937:p.A144E
13280	8	75389915	75389915	C	A	C	M	exonic	JPH1	missense	NM_020647:p.G292V
13280	8	87462246	87462246	A	T	A	W	intronic	WWP1	NA	NA
13280	8	89156080	89156080	C	T	C	Y	exonic	MMP16	nonsense	NM_005941:p.W364X
13280	8	92991154	92991154	T	C	T	Y	intergenic	NA	NA	NA
13280	8	96329074	96329074	C	G	C	S	exonic	C8orf37	missense	NM_177965:p.S191R
13280	8	110169690	110169690	T	A	T	W	exonic	TRHR	missense	NM_003301:p.V258E
13280	8	113306313	113306313	T	A	T	W	exonic	CSMD3	missense	NM_198123:p.T3663S
13280	8	113489922	113489922	T	C	T	Y	intronic	CSMD3	NA	NA
13280	8	118019813	118019813	C	G	C	S	exonic	C8orf85	silent	NM_001025357:p.L50L
13280	8	124264458	124264458	G	A	G	R	exonic	FAM83A	missense	NM_032899:p.D61N
13280	8	124371179	124371179	C	G	C	S	intergenic	NA	NA	NA
13280	8	133809323	133809323	G	C	G	S	exonic	TMEM71	missense	NM_144649:p.I174M
13280	8	133898989	133898989	A	G	A	R	intronic	PHF20L1	NA	NA
13280	8	134017134	134017134	A	A	G	R	intronic	TG	NA	NA
13280	8	139229861	139229861	G	A	G	R	intronic	FAM135B	NA	NA
13280	8	145590531	145590531	G	A	G	R	exonic	CPSF1	silent	NM_013291:p.F1205F
13280	9	35139264	35139264	C	G	C	S	intergenic	NA	NA	NA
13280	9	36293677	36293677	C	T	C	Y	intergenic	NA	NA	NA
13280	9	37627241	37627241	G	C	G	S	intergenic	NA	NA	NA
13280	9	66576963	66576963	C	T	C	Y	intergenic	NA	NA	NA
13280	9	67910466	67910466	-	T	C	*/+T	intergenic	NA	NA	NA
13280	9	89462824	89462824	C	T	C	Y	exonic	DAPK1	missense	NM_004938:p.L629F
13280	9	91119956	91119956	G	A	G	R	exonic	CKS2	silent	NM_001827:p.L37L
13280	9	92034309	92034309	C	G	C	S	intergenic	NA	NA	NA
13280	9	110703823	110703823	C	G	C	S	intronic	IKBKAP	NA	NA
13280	9	116435841	116435841	G	T	G	K	intronic	C9orf91	NA	NA
13280	9	122759412	122759412	C	T	C	Y	exonic	C5	silent	NM_001735:p.K1578K
13280	9	135434062	135434062	G	T	G	K	exonic	FAM163B	missense	NM_001080515:p.G135D
13280	9	135667030	135667030	G	C	G	S	intronic	VAV2	NA	NA
13280	9	137656168	137656168	A	C	A	M	exonic	GLT6D1	missense	NM_182974:p.W143G
13280	9	137782699	137782699	G	A	G	R	exonic	KCNT1	missense	NM_020822:p.G142D
13280	9	138250473	138250473	G	A	G	R	exonic	QSOX2	missense	NM_181701:p.S320L
13280	10	3145640	3145640	G	T	G	K	exonic	PFKP	missense	NM_002627:p.R434L
13280	10	12018750	12018750	T	A	T	W	intronic	UPF2	NA	NA
13280	10	18925191	18925191	T	A	T	W	exonic	NSUN6	silent	NM_182543:p.A243A
13280	10	21137380	21137380	A	G	A	R	intronic	NEBL	NA	NA
13280	10	25353335	25353335	C	G	C	S	exonic	THNSL1	missense	NM_024838:p.L393V
13280	10	37324053	37324053	G	T	G	K	intergenic	NA	NA	NA
13280	10	42025722	42025722	G	T	G	K	intergenic	NA	NA	NA
13280	10	44750328	44750328	C	T	C	Y	exonic	TMEM72	silent	NM_001123376:p.L190L
13280	10	45227665	45227665	G	C	G	S	exonic	ALOX5	missense	NM_000698:p.G151A
13280	10	60792275	60792275	G	T	G	K	UTR5	FAM13C	NA	NA
13280	10	63489045	63489045	G	T	G	K	exonic	ARID5B	silent	NM_032199:p.L362L
13280	10	64694428	64694428	G	A	G	R	exonic	JMJD1C	nonsense	NM_032776:p.Q146X
13280	10	121331792	121331792	T	C	T	Y	intronic	TIAL1	NA	NA

13280	10	121747038	121747038	G	T	G	K	intergenic	NA	NA	NA
13280	10	135020257	135020257	-	C	G	*/+C	intronic	C10orf125	NA	NA
13280	11	6189563	6189563	C	A	C	M	exonic	FAM160A2	nonsense	NM_032127:p.G904X
13280	11	14471812	14471812	T	G	T	K	exonic	COPB1	missense	NM_016451:p.H148P
13280	11	18543026	18543026	T	C	T	Y	exonic	UEVLD	missense	NM_018314:p.I201V
13280	11	20360260	20360260	G	T	G	K	intronic	HTATIP2	NA	NA
13280	11	33265498	33265498	C	G	C	S	exonic	HIPK3	missense	NM_005734:p.A321G
13280	11	46354426	46354426	C	G	C	S	intronic	DGKZ	NA	NA
13280	11	47135262	47135262	G	T	G	K	exonic	C11orf49	missense	NM_001003678:p.L188F
13280	11	48504318	48504318	C	A	C	M	intergenic	NA	NA	NA
13280	11	49811645	49811645	A	T	A	W	intergenic	NA	NA	NA
13280	11	50163499	50163499	C	T	C	Y	intergenic	NA	NA	NA
13280	11	57228951	57228951	A	T	A	W	intronic	MED19	NA	NA
13280	11	57728188	57728188	C	A	C	M	exonic	OR1S2	missense	NM_001004459:p.M14I
13280	11	57728189	57728189	A	T	A	W	exonic	OR1S2	missense	NM_001004459:p.M14K
13280	11	58522678	58522678	A	T	A	W	ncRNA	LOC283194	NA	NA
13280	11	64935291	64935291	A	G	A	R	exonic	FRMD8	missense	NM_031904:p.K427E
13280	11	65441851	65441851	G	T	G	K	exonic	C11orf68	missense	NM_001135635:p.F179L
13280	11	76374301	76374301	T	A	T	W	intronic	ACER3	NA	NA
13280	11	82521141	82521141	G	C	G	S	intergenic	NA	NA	NA
13280	11	85122763	85122763	A	T	A	W	exonic	SYTL2	missense	NM_001162953:p.N419K
13280	11	89025383	89025383	C	T	C	Y	intergenic	NA	NA	NA
13280	11	91708986	91708986	G	C	G	S	intergenic	NA	NA	NA
13280	11	116208720	116208720	G	A	G	R	exonic	APOC3	silent	NM_000040:p.L70L
13280	11	123771872	123771872	C	T	C	Y	exonic	OR8B3	missense	NM_001005467:p.E196K
13280	11	123946143	123946143	T	A	T	W	exonic	OR8A1	silent	NM_001005194:p.G323G
13280	11	124142978	124142978	G	A	G	R	exonic	C11orf61	silent	NM_024631:p.I276I
13280	12	527768	527768	G	T	G	K	intronic	B4GALNT3	NA	NA
13280	12	4078037	4078037	C	T	C	Y	intergenic	NA	NA	NA
13280	12	8504817	8504817	C	G	C	S	intronic	CLEC6A	NA	NA
13280	12	33031036	33031036	G	C	G	S	intergenic	NA	NA	NA
13280	12	43555320	43555320	G	A	G	R	exonic	NELL2	nonsense	NM_001145107:p.Q97X
13280	12	46658065	46658065	G	A	G	R	exonic	COL2A1	nonsense	NM_033150:p.R967X
13280	12	51934113	51934113	C	T	C	Y	exonic	MFSD5	silent	NM_001170790:p.F516F
13280	12	55693535	55693535	T	A	T	W	intronic	TAC3	NA	NA
13280	12	56150514	56150514	C	A	C	M	exonic	GLI1	missense	NM_001167609:p.A534E
13280	12	61952222	61952222	T	C	T	Y	intergenic	NA	NA	NA
13280	12	68492794	68492794	C	G	C	S	intronic	RAB3IP	NA	NA
13280	12	69015263	69015263	C	G	C	S	intronic	CNOT2	NA	NA
13280	12	88521712	88521712	C	G	C	S	exonic	ATP2B1	missense	NM_001001323:p.R919T
13280	12	91699821	91699821	C	A	C	M	intronic	EEA1	NA	NA
13280	12	100113060	100113060	C	G	C	S	exonic	SLC5A8	missense	NM_145913:p.D161H
13280	12	102860431	102860431	T	G	T	K	intronic	HSP90B1	NA	NA
13280	12	105348219	105348219	G	A	G	R	exonic	POLR3B	silent	NM_018082:p.Q434Q
13280	12	121415840	121415840	G	A	G	R	intronic	CLIP1	NA	NA
13280	12	121569346	121569346	G	A	G	R	exonic	RSRC2	missense	NM_023012:p.R131C
13280	12	122215901	122215901	T	A	T	W	exonic	MPHOSPH9	missense	NM_022782:p.T738S
13280	12	131062117	131062117	C	T	C	Y	exonic	EP400	silent	NM_015409:p.L1141L
13280	12	131816697	131816697	G	T	G	K	exonic	ANKLE2	missense	NM_015114:p.S708R
13280	12	131834753	131834753	C	T	C	Y	intronic	ANKLE2	NA	NA
13280	13	18364629	18364629	C	G	C	S	intergenic	NA	NA	NA
13280	13	21038985	21038985	A	G	A	R	exonic	EFHA1	silent	NM_152726:p.Y103Y
13280	13	22813667	22813667	C	T	C	Y	exonic	SACS	nonsense	NM_014363:p.W783X
13280	13	23342223	23342223	G	T	G	K	exonic	MIPEP	missense	NM_005932:p.R239S
13280	13	24382075	24382075	C	T	C	Y	exonic	CENPJ	missense	NM_018451:p.E240K
13280	13	38495234	38495234	G	A	G	R	exonic	C13orf23	missense	NM_170719:p.P178S
13280	13	42442744	42442744	A	G	A	R	intronic	EPST1	NA	NA
13280	13	47935919	47935919	A	T	A	W	exonic	RB1	nonsense	NM_000321:p.K720X
13280	13	51380402	51380402	G	C	G	S	intergenic	NA	NA	NA
13280	13	52293095	52293095	T	A	T	W	intergenic	NA	NA	NA
13280	13	58002330	58002330	C	T	C	Y	intergenic	NA	NA	NA
13280	13	114028535	114028535	A	G	A	R	exonic	CDC16	missense	NM_003903:p.N279S
13280	14	20895424	20895424	T	A	T	W	intronic	SUPT16H	NA	NA
13280	14	24045588	24045588	A	T	A	W	exonic	CMA1	missense	NM_001836:p.L91H
13280	14	44442190	44442190	G	C	G	S	exonic	C14orf28	missense	NM_001017923:p.L185F
13280	14	51993678	51993678	T	G	T	K	intronic	TXNDC16	NA	NA
13280	14	66637423	66637423	C	G	C	S	intronic	GPHN	NA	NA
13280	14	76649633	76649633	C	A	C	M	exonic	KIAA1737	missense	NM_033426:p.P140Q
13280	15	19371207	19371207	A	T	A	W	intergenic	NA	NA	NA
13280	15	19798830	19798830	G	T	G	K	ncRNA	LOC727924	NA	NA
13280	15	27796255	27796255	C	T	C	Y	exonic	TJP1	missense	NM_003257:p.E1352K
13280	15	40808983	40808983	C	T	C	Y	intronic	CDAN1	NA	NA
13280	15	41050100	41050100	G	A	G	R	intronic	UBR1	NA	NA
13280	15	43173748	43173748	C	G	C	S	exonic	DUOX2	silent	NM_014080:p.G1513G
13280	15	47939721	47939721	C	A	C	M	exonic	ATP8B4	missense	NM_024837:p.V1181L
13280	15	50495705	50495705	C	A	C	M	exonic	MYO5A	missense	NM_001142495:p.A181S
13280	15	51016607	51016607	G	A	G	R	intergenic	NA	NA	NA
13280	15	56072211	56072211	A	T	A	W	exonic	ALDH1A2	missense	NM_170697:p.F165Y
13280	15	63464328	63464328	C	A	C	M	intronic	IGDCC4	NA	NA



13280	15	67122118	67122118	C	G	C	S	exonic	NOX5	missense	NM_001184779:p.F494L
13280	15	71196187	71196187	G	A	G	R	exonic	NEO1	silent	NM_002499:p.Q128Q
13280	15	71676430	71676430	A	G	A	R	exonic	NPTN	missense	NM_001161363:p.I142T
13280	15	73862896	73862896	G	A	G	R	intergenic	NA	NA	NA
13280	15	75023256	75023256	G	C	G	S	exonic	RCN2	missense	NM_002902:p.D184H
13280	15	75193675	75193675	C	A	C	M	exonic	SGK269	missense	NM_024776:p.A1707S
13280	15	76667761	76667761	A	G	A	R	exonic	CHRNA5	missense	NM_000745:p.I118M
13280	15	83127820	83127820	C	A	C	M	exonic	ZNF592	missense	NM_014630:p.Q304K
13280	15	83127845	83127845	C	T	C	Y	exonic	ZNF592	missense	NM_014630:p.S312L
13280	15	83128397	83128397	C	G	C	S	exonic	ZNF592	missense	NM_014630:p.A496G
13280	15	87333728	87333728	A	C	A	M	intergenic	NA	NA	NA
13280	16	1219711	1219711	G	A	G	R	exonic	TPSB2	silent	NM_024164:p.G30G
13280	16	2074715	2074715	C	T	C	Y	exonic	TSC2	silent	NM_001077183:p.P1430P
13280	16	2074786	2074786	C	G	C	S	intronic	TSC2	NA	NA
13280	16	2141733	2141733	G	A	G	R	exonic	RAB26	missense	NM_014353:p.V129I
13280	16	20399439	20399439	G	T	G	K	exonic	ACSM2A	missense	NM_001010845:p.W442L
13280	16	30953890	30953890	C	T	C	Y	intronic	STX4	NA	NA
13280	16	33858570	33858570	G	T	G	K	intergenic	NA	NA	NA
13280	17	1633007	1633007	G	C	G	S	intronic	SMYD4	NA	NA
13280	17	1730533	1730533	T	A	T	W	intronic	RPA1	NA	NA
13280	17	11583020	11583020	C	A	C	M	exonic	DNAH9	silent	NM_001372:p.T1971T
13280	17	25909786	25909786	T	C	T	Y	upstream	TBC1D29	NA	NA
13280	17	25983871	25983871	A	C	A	M	ncRNA	LRRC37BP1	NA	NA
13280	17	26120050	26120050	A	T	A	W	intergenic	NA	NA	NA
13280	17	26600139	26600139	C	G	C	S	exonic	NF1	nonsense	NM_001042492:p.S1329X
13280	17	30795728	30795728	G	A	G	R	intronic	SLFN13	NA	NA
13280	17	35550980	35550980	T	C	T	Y	intronic	CASC3	NA	NA
13280	17	36450828	36450828	G	T	G	K	exonic	KRTAP1-1	silent	NM_030967:p.I116I
13280	17	53407079	53407079	C	A	C	M	exonic	VEZF1	missense	NM_007146:p.M440I
13280	17	64625618	64625618	C	T	C	Y	intronic	ABCA6	NA	NA
13280	17	70461845	70461845	C	A	C	M	exonic	C17orf28	missense	NM_030630:p.S616I
13280	17	71264738	71264738	G	A	G	R	exonic	ITGB4	missense	NM_000213:p.G1725R
13280	17	71459246	71459246	C	G	C	S	exonic	ACOX1	missense	NM_001185039:p.E280Q
13280	18	895347	895347	C	A	C	M	UTR5	ADCYAP1	NA	NA
13280	18	1720275	1720275	G	A	G	R	intergenic	NA	NA	NA
13280	18	3437845	3437845	C	T	C	Y	intronic	TGIF1	NA	NA
13280	18	3967899	3967899	C	G	C	S	intergenic	NA	NA	NA
13280	18	14603897	14603897	C	G	C	S	intergenic	NA	NA	NA
13280	18	19352810	19352810	G	C	G	S	intronic	C18orf8	NA	NA
13280	18	26132965	26132965	C	A	C	M	downstream	MIR302F	NA	NA
13280	18	27871231	27871231	G	C	G	S	splicing	RNF125	NA	NA
13280	18	45342620	45342620	A	G	A	R	UTR5	LIPG	NA	NA
13280	18	49239652	49239652	C	T	C	Y	exonic	DCC	nonsense	NM_005215:p.R1149X
13280	18	72675770	72675770	T	C	T	Y	intronic	ZNF236	NA	NA
13280	19	3604520	3604520	C	T	C	Y	exonic	PIP5K1C	missense	NM_012398:p.G230D
13280	19	9662536	9662536	G	T	G	K	intergenic	NA	NA	NA
13280	19	12244233	12244233	C	G	C	S	exonic	ZNF44	missense	NM_001164276:p.D661H
13280	19	12245310	12245310	C	T	C	Y	exonic	ZNF44	missense	NM_001164276:p.E302K
13280	19	15867324	15867324	T	C	T	Y	exonic	CYP4F2	missense	NM_001082:p.N112S
13280	19	16868069	16868069	A	C	A	M	exonic	CPAMD8	missense	NM_015692:p.L1829V
13280	19	17299498	17299498	C	T	C	Y	splicing	ANO8	silent	NM_020959:p.Q806Q
13280	19	19104175	19104175	C	A	C	M	exonic	TMEM161A	silent	NM_017814:p.T143T
13280	19	20027739	20027739	A	T	A	W	intergenic	NA	NA	NA
13280	19	20274519	20274519	-	TA	T	*/+TA	intergenic	NA	NA	NA
13280	19	22063117	22063117	C	T	C	Y	exonic	ZNF257	missense	NM_033468:p.S242L
13280	19	22445941	22445941	C	G	C	S	intergenic	NA	NA	NA
13280	19	22732666	22732666	C	A	C	M	exonic	ZNF99	missense	NM_001080409:p.A538S
13280	19	33974385	33974385	C	A	C	M	intergenic	NA	NA	NA
13280	19	40492838	40492838	C	A	C	M	exonic	MAG	missense	NM_080600:p.R485S
13280	19	42817788	42817788	T	A	T	W	exonic	ZFP30	missense	NM_014898:p.E498D
13280	19	43686654	43686654	G	A	G	R	intronic	RYR1	NA	NA
13280	19	43768800	43768800	A	G	A	R	intronic	RYR1	NA	NA
13280	19	45414989	45414989	G	T	G	K	exonic	TTC9B	silent	NM_152479:p.G185G
13280	19	46045870	46045870	G	C	G	S	intronic	CYP2A6	NA	NA
13280	19	47935113	47935113	G	C	G	S	intronic	PSG3	NA	NA
13280	19	48277259	48277259	C	A	C	M	intronic	PSG2	NA	NA
13280	19	50255515	50255515	G	C	G	S	exonic	CLASRP	missense	NM_007056:p.E247Q
13280	19	51892227	51892227	G	A	G	R	intronic	PRKD2	NA	NA
13280	19	51922692	51922692	G	A	G	R	intronic	STRN4	NA	NA
13280	19	53034920	53034920	A	T	A	W	exonic	CRX	missense	NM_000554:p.S262C
13280	19	53525454	53525454	G	A	G	R	exonic	EMP3	missense	NM_001425:p.G136E
13280	19	56382526	56382526	C	T	C	Y	intergenic	NA	NA	NA
13280	19	59005349	59005349	C	G	C	S	exonic	NLRP12	missense	NM_144687:p.R459T
13280	19	59470584	59470584	A	G	A	R	intronic	LILRB2	NA	NA
13280	19	59797677	59797677	A	T	A	W	intronic	LILRA1	NA	NA
13280	19	59797691	59797691	A	T	A	W	intronic	LILRA1	NA	NA
13280	19	59798036	59798036	C	A	C	M	exonic	LILRA1	silent	NM_006863:p.T55T
13280	19	59834830	59834830	C	A	C	M	exonic	LILRB1	silent	NM_001081639:p.T46T
13280	19	59912419	59912419	T	C	T	Y	ncRNA	LILRP2	NA	NA

13280	19	60357112	60357112	C	T	C	Y	intronic	TNNI3	NA	NA
13280	19	60515052	60515052	G	T	G	K	intronic	BRSK1	NA	NA
13280	19	62531339	62531339	G	T	G	K	exonic	ZNF543	missense	NM_213598:p.G233W
13280	19	63144458	63144458	C	G	C	S	exonic	ZNF256	missense	NM_005773:p.Q510H
13280	19	63464456	63464456	G	C	G	S	exonic	ZNF544	missense	NM_014480:p.Q224H
13280	19	63559421	63559421	T	C	T	Y	exonic	ZNF497	missense	NM_198458:p.T465A
13280	20	16433005	16433005	G	C	G	S	intronic	KIF16B	NA	NA
13280	20	23562604	23562604	C	A	C	M	exonic	CST3	silent	NM_000099:p.V130V
13280	20	23617569	23617569	G	A	G	R	exonic	CST4	missense	NM_001899:p.A13V
13280	20	28259322	28259322	C	T	C	Y	intergenic	NA	NA	NA
13280	20	30247894	30247894	G	A	G	R	UTR3	PLAGL2	NA	NA
13280	20	31084499	31084499	C	-	G	*-/C	exonic	BPIL3	FS_del	NM_174897:c.146_146delC
13280	20	33335408	33335408	C	A	C	M	exonic	EIF6	missense	NM_002212:p.G60W
13280	20	34683145	34683145	G	T	G	K	intronic	SLA2	NA	NA
13280	20	36073739	36073739	C	G	C	S	exonic	TTI1	missense	NM_014657:p.E632Q
13280	20	62133707	62133707	T	C	T	Y	intronic	PRPF6	NA	NA
13280	20	62133708	62133708	G	T	G	K	intronic	PRPF6	NA	NA
13280	21	9744061	9744061	G	T	G	K	intergenic	NA	NA	NA
13280	21	9964742	9964742	C	A	C	M	intronic	TPTE	NA	NA
13280	21	39782350	39782350	T	C	T	Y	intronic	SH3BGR	NA	NA
13280	21	42211271	42211271	A	T	A	W	intronic	C2CD2	NA	NA
13280	22	15251087	15251087	G	A	G	R	intergenic	NA	NA	NA
13280	22	17755346	17755346	G	C	G	S	intronic	HIRA	NA	NA
13280	22	21319770	21319770	G	T	G	K	intronic	GGTLC2	NA	NA
13280	22	22510575	22510575	G	A	G	R	exonic	DERL3	silent	NM_001135751:p.F97F
13280	22	22823943	22823943	C	G	C	S	intronic	CABIN1	NA	NA
13280	22	27523200	27523200	G	A	G	R	intronic	XBP1	NA	NA
13280	22	29661039	29661039	G	A	G	R	exonic	MORC2	missense	NM_014941:p.P579L
13280	22	31322621	31322621	G	T	G	K	intronic	SYN3	NA	NA
13280	22	36804371	36804371	C	G	C	S	exonic	SLC16A8	silent	NM_013356:p.A495A
13280	22	48906616	48906616	G	T	G	K	intronic	MOV10L1	NA	NA
13280	22	49290644	49290644	G	A	G	R	intronic	LMF2	NA	NA
13280	X	2788055	2788055	C	A	C	M	exonic	GYG2	silent	NM_003918:p.P293P
13280	X	10141668	10141668	C	G	C	S	intronic	CLCN4	NA	NA
13280	X	11633435	11633435	C	T	C	Y	intergenic	NA	NA	NA
13280	X	12537853	12537853	A	G	A	R	exonic	FRMPD4	missense	NM_014728:p.D84G
13280	X	15494486	15494486	G	T	G	K	intronic	ACE2	NA	NA
13280	X	15580516	15580516	A	-	C	*-/A	intronic	TMEM27	NA	NA
13280	X	15751123	15751123	G	A	G	R	exonic	ZRSR2	missense	NM_005089:p.R429H
13280	X	18503403	18503403	G	C	G	S	exonic	CDKL5	missense	NM_001037343:p.E52Q
13280	X	23321754	23321754	C	G	C	S	exonic	PTCHD1	missense	NM_173495:p.S733C
13280	X	41091281	41091281	A	G	A	R	intronic	DDX3X	NA	NA
13280	X	45657473	45657473	T	C	T	Y	intergenic	NA	NA	NA
13280	X	46836452	46836452	G	T	G	K	exonic	RGN	missense	NM_004683:p.C248F
13280	X	47372558	47372558	G	C	G	S	exonic	CFP	missense	NM_002621:p.S97C
13280	X	47382582	47382582	C	T	C	Y	intronic	ELK1	NA	NA
13280	X	47941717	47941717	T	A	T	W	upstream	SSX5	NA	NA
13280	X	48049049	48049049	C	A	C	M	intergenic	NA	NA	NA
13280	X	48936733	48936733	C	A	C	M	exonic	SYP	missense	NM_003179:p.Q185H
13280	X	49660341	49660341	C	T	C	Y	intronic	CLCN5	NA	NA
13280	X	50367314	50367314	G	T	G	K	exonic	SHROOM4	missense	NM_020717:p.H1190N
13280	X	53240957	53240957	C	T	C	Y	exonic	KDM5C	missense	NM_001146702:p.D1040N
13280	X	53294659	53294659	G	T	G	K	exonic	IQSEC2	silent	NM_015075:p.R605R
13280	X	53851410	53851410	A	-	T	*-/A	intergenic	NA	NA	NA
13280	X	55050120	55050120	C	G	C	S	exonic	APEX2	missense	NM_014481:p.Q362E
13280	X	55530119	55530119	G	A	G	R	exonic	USP51	missense	NM_201286:p.T660I
13280	X	63442956	63442956	A	C	A	M	intronic	MTMR8	NA	NA
13280	X	64670145	64670145	G	A	G	R	intronic	LAS1L	NA	NA
13280	X	65212194	65212194	C	T	C	Y	intergenic	NA	NA	NA
13280	X	69074107	69074107	A	G	A	R	intronic	EDA	NA	NA
13280	X	70435092	70435092	T	C	T	Y	intronic	NONO	NA	NA
13280	X	70674365	70674365	C	A	C	M	intronic	OGT	NA	NA
13280	X	71789183	71789183	G	T	G	K	exonic	PHKA1	missense	NM_001172436:p.P394H
13280	X	74720939	74720939	C	A	C	M	intergenic	NA	NA	NA
13280	X	74720940	74720940	C	A	C	M	intergenic	NA	NA	NA
13280	X	81648883	81648883	C	-	G	*-/C	intergenic	NA	NA	NA
13280	X	91125116	91125116	C	A	C	M	intronic	PCDH11X	NA	NA
13280	X	99821095	99821095	G	A	G	R	intronic	SYTL4	NA	NA
13280	X	100012386	100012386	T	C	T	Y	exonic	NOX1	missense	NM_013955:p.Y40C
13280	X	101268397	101268397	C	G	C	S	UTR5	TCEAL2	NA	NA
13280	X	101743917	101743917	A	G	A	R	exonic	ARMCX5	silent	NM_001168480:p.T64T
13280	X	113988790	113988790	C	T	C	Y	intronic	HTR2C	NA	NA
13280	X	117584044	117584044	T	G	T	K	exonic	DOCK11	missense	NM_144658:p.Y248D
13280	X	117584105	117584105	A	T	A	W	exonic	DOCK11	missense	NM_144658:p.K268I
13280	X	128976652	128976652	C	-	A	*-/C	exonic	BCORL1	FS_del	NM_021946:c.2223_2223delC
13280	X	134569946	134569946	A	T	A	W	intergenic	NA	NA	NA
13280	X	150567725	150567725	C	G	C	S	intronic	PASD1	NA	NA
13280	Y	11701674	11701674	G	A	G	R	intergenic	NA	NA	NA
13280	M	1649	1649	T	C	T	Y	downstream	MIR1978	NA	NA

13299	1	141482263	141482263	G	A	G	R	intergenic	NA	NA	NA
13299	2	91023181	91023181	C	G	C	S	intergenic	NA	NA	NA
13299	2	91144838	91144838	A	T	A	W	intergenic	NA	NA	NA
13299	3	75870266	75870266	A	G	A	R	exonic	ZNF717	missense	NM_001128223:p.C400R
13299	3	75870274	75870274	C	A	C	M	exonic	ZNF717	missense	NM_001128223:p.C397F
13299	3	113476382	113476382	C	T	C	Y	intronic	SLC9A10	NA	NA
13299	4	40829	40829	A	G	A	R	intergenic	NA	NA	NA
13299	7	77235845	77235845	T	A	T	W	intronic	RSBN1L	NA	NA
13299	8	57551879	57551879	G	T	G	K	intergenic	NA	NA	NA
13299	9	67915914	67915914	C	G	C	S	intergenic	NA	NA	NA
13299	10	38685363	38685363	C	T	C	Y	ncRNA	HSD17B7P2	NA	NA
13299	11	125651413	125651413	T	G	T	K	intronic	FOXRED1	NA	NA
13299	16	32741280	32741280	T	C	T	Y	intergenic	NA	NA	NA
13299	17	78137569	78137569	G	T	G	K	intronic	FOXX2	NA	NA
13299	18	15262170	15262170	C	A	C	M	intergenic	NA	NA	NA
13299	18	16773248	16773248	A	C	A	M	intergenic	NA	NA	NA
13299	Y	11784218	11784218	G	T	G	K	intergenic	NA	NA	NA
13394	1	2519484	2519484	T	C	T	Y	intronic	MMEL1	NA	NA
13394	1	3309278	3309278	G	T	G	K	exonic	PRDM16	missense	NM_199454:p.R247L
13394	1	11182124	11182124	C	T	C	Y	intronic	MTOR	NA	NA
13394	1	11182161	11182161	C	T	C	Y	intronic	MTOR	NA	NA
13394	1	11182305	11182305	C	G	C	S	exonic	MTOR	silent	NM_004958:p.L1329L
13394	1	11182419	11182419	C	G	C	S	intronic	MTOR	NA	NA
13394	1	33962809	33962809	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.A887S
13394	1	42815220	42815220	C	G	C	S	intronic	CCDC30	NA	NA
13394	1	68682766	68682766	C	G	C	S	intronic	RPE65	NA	NA
13394	1	86736972	86736972	C	A	C	M	exonic	CLCA1	missense	NM_001285:p.P748H
13394	1	92714255	92714255	G	T	G	K	exonic	GFI1	missense	NM_005263:p.F396L
13394	1	141537205	141537205	C	A	C	M	intergenic	NA	NA	NA
13394	1	141537209	141537209	A	G	A	R	intergenic	NA	NA	NA
13394	1	141537210	141537210	T	C	T	Y	intergenic	NA	NA	NA
13394	1	154798216	154798216	C	T	C	Y	intronic	IQGAP3	NA	NA
13394	1	156864046	156864046	A	G	A	R	exonic	SPTA1	missense	NM_003126:p.L1886P
13394	1	159053326	159053326	A	G	A	R	intronic	LY9	NA	NA
13394	1	159309233	159309233	C	T	C	Y	exonic	PVRL4	missense	NM_030916:p.E459K
13394	1	165756203	165756203	A	C	A	M	intergenic	NA	NA	NA
13394	1	174935263	174935263	G	T	G	K	exonic	PAPPA2	missense	NM_020318:p.V1051L
13394	1	184587837	184587837	T	A	T	W	exonic	TPR	missense	NM_003292:p.K788M
13394	1	196163523	196163523	G	T	G	K	exonic	LHX9	missense	NM_001014434:p.G296C
13394	1	202670253	202670253	T	C	T	Y	exonic	PIK3C2B	missense	NM_002646:p.H1208R
13394	1	234979034	234979034	C	G	C	S	intronic	ACTN2	NA	NA
13394	1	245779135	245779135	C	A	C	M	exonic	C1orf150	silent	NM_145278:p.R7R
13394	2	58220303	58220303	A	T	A	W	splicing	VRK2	NA	NA
13394	2	61392106	61392106	G	A	G	R	intronic	USP34	NA	NA
13394	2	71750182	71750182	G	C	G	S	intronic	DYSF	NA	NA
13394	2	98219587	98219587	G	T	G	K	exonic	VWA3B	missense	NM_144992:p.V879F
13394	2	114199553	114199553	T	C	T	Y	exonic	SLC35F5	silent	NM_025181:p.L374L
13394	2	132751109	132751109	G	A	G	R	intergenic	NA	NA	NA
13394	2	136676503	136676503	T	A	T	W	intergenic	NA	NA	NA
13394	2	154851463	154851463	C	T	C	Y	intronic	GALNT13	NA	NA
13394	2	191552695	191552695	C	A	C	M	intronic	STAT1	NA	NA
13394	2	198206729	198206729	G	T	G	K	exonic	RFTN2	missense	NM_144629:p.Q226K
13394	2	203775774	203775774	G	C	G	S	intronic	NBEAL1	NA	NA
13394	2	207132871	207132871	G	A	G	R	intronic	ADAM23	NA	NA
13394	2	225076597	225076597	C	G	C	S	intronic	CUL3	NA	NA
13394	2	232033386	232033386	C	T	C	Y	intronic	NCL	NA	NA
13394	3	10836396	10836396	G	T	G	K	splicing	SLC6A11	NA	NA
13394	3	10836397	10836397	G	T	G	K	splicing	SLC6A11	missense	NM_014229:p.G131V
13394	3	49852687	49852687	C	T	C	Y	intronic	TRAIIP	NA	NA
13394	3	56628651	56628651	T	C	T	Y	intronic	CCDC66	NA	NA
13394	3	66532150	66532150	A	G	A	R	exonic	LRIG1	missense	NM_015541:p.L389P
13394	3	99592638	99592638	G	C	G	S	exonic	OR5K3	missense	NM_001005516:p.G147R
13394	3	99592639	99592639	G	T	G	K	exonic	OR5K3	missense	NM_001005516:p.G147V
13394	3	118228190	118228190	G	C	G	S	intergenic	NA	NA	NA
13394	3	128863890	128863890	A	C	A	M	intronic	PODXL2	NA	NA
13394	3	138737257	138737257	A	G	A	R	intergenic	NA	NA	NA
13394	3	140696239	140696239	G	T	G	K	intergenic	NA	NA	NA
13394	3	150570384	150570384	G	C	G	S	intronic	TM4SF1	NA	NA
13394	3	152550611	152550611	A	G	A	R	exonic	MED12L	silent	NM_053002:p.A740A
13394	4	38781234	38781234	G	C	G	S	intronic	KLHL5	NA	NA
13394	4	68853105	68853105	A	G	A	R	intergenic	NA	NA	NA
13394	4	77143756	77143756	T	C	T	Y	UTR3	CXCL9	NA	NA
13394	4	83566334	83566334	A	T	A	W	intronic	HNRPD	NA	NA
13394	4	93322948	93322948	G	T	G	K	intergenic	NA	NA	NA
13394	4	96981493	96981493	G	T	G	K	UTR3	PDHA2	NA	NA
13394	4	96981494	96981494	G	T	G	K	UTR3	PDHA2	NA	NA
13394	4	125811277	125811277	G	T	G	K	exonic	ANKRD50	missense	NM_020337:p.Q869K
13394	4	186781777	186781777	G	A	G	R	exonic	SORBS2	silent	NM_021069:p.S596S
13394	5	33612445	33612445	G	A	G	R	exonic	ADAMTS12	missense	NM_030955:p.T1148I

13394	5	37144359	37144359	T	A	T	W	intronic	C5orf42	NA	NA
13394	5	37184109	37184109	T	C	T	Y	exonic	C5orf42	missense	NM_023073:p.L2744V
13394	5	39756337	39756337	G	C	G	S	intergenic	NA	NA	NA
13394	5	39756338	39756338	G	T	G	K	intergenic	NA	NA	NA
13394	5	161501943	161501943	C	A	C	M	intronic	GABRG2	NA	NA
13394	6	3977676	3977676	C	T	C	Y	exonic	PRPF4B	missense	NM_003913:p.S309F
13394	6	104572720	104572720	C	A	C	M	intergenic	NA	NA	NA
13394	6	107527127	107527127	A	T	A	W	intronic	BEND3	NA	NA
13394	6	112496248	112496248	T	C	T	Y	exonic	WISP3	missense	NM_003880:p.L246P
13394	7	34061306	34061306	A	G	A	R	exonic	BMPER	missense	NM_133468:p.T265A
13394	7	35087760	35087760	C	T	C	Y	intergenic	NA	NA	NA
13394	7	138508079	138508079	G	A	G	R	intronic	TTC26	NA	NA
13394	8	38291301	38291301	T	A	T	W	intronic	WHSC1L1	NA	NA
13394	8	47622932	47622932	C	T	C	Y	intergenic	NA	NA	NA
13394	8	89137533	89137533	C	A	C	M	exonic	MMP16	missense	NM_005941:p.G438C
13394	8	92448100	92448100	G	T	G	K	exonic	SLC26A7	missense	NM_134266:p.Q535H
13394	9	21268275	21268275	T	A	T	W	intergenic	NA	NA	NA
13394	9	66205000	66205000	A	G	A	R	intergenic	NA	NA	NA
13394	9	67907138	67907138	G	A	G	R	intergenic	NA	NA	NA
13394	9	69971591	69971591	G	T	G	K	intergenic	NA	NA	NA
13394	9	111938576	111938576	G	T	G	K	exonic	AKAP2	nonsense	NM_007203:p.E311X
13394	9	132517442	132517442	G	A	G	R	intergenic	NA	NA	NA
13394	10	1272137	1272137	T	C	T	Y	intronic	ADARB2	NA	NA
13394	10	17182203	17182203	C	A	C	M	exonic	CUBN	missense	NM_001081:p.M524I
13394	10	17472604	17472604	C	A	C	M	exonic	ST8SIA6	silent	NM_001004470:p.S74S
13394	10	18294550	18294550	A	G	A	R	exonic	SLC39A12	missense	NM_152725:p.N226D
13394	10	50360817	50360817	T	A	T	W	exonic	ERCC6	missense	NM_000124:p.L697F
13394	10	50526646	50526646	C	A	C	M	exonic	CHAT	missense	NM_020984:p.L339M
13394	10	64073767	64073767	A	C	A	M	intronic	ZNF365	NA	NA
13394	10	79251522	79251522	T	C	T	Y	exonic	DLG5	missense	NM_004747:p.D909G
13394	10	89675267	89675267	A	G	A	R	exonic	PTEN	missense	NM_000314:p.H61R
13394	10	96152360	96152360	G	A	G	R	UTR5	TBC1D12	NA	NA
13394	10	97939481	97939481	T	A	T	W	intergenic	NA	NA	NA
13394	10	97939484	97939484	A	T	A	W	intergenic	NA	NA	NA
13394	10	132925512	132925512	C	T	C	Y	intronic	TCERG1L	NA	NA
13394	11	5211994	5211994	G	T	G	K	exonic	HBD	missense	NM_000519:p.Q40K
13394	11	10439826	10439826	G	T	G	K	exonic	AMPD3	nonsense	NM_000480:p.E71X
13394	11	18456793	18456793	T	C	T	Y	intronic	LDHAL6A	NA	NA
13394	11	20442537	20442537	G	T	G	K	intronic	PRMT3	NA	NA
13394	11	22291238	22291238	C	A	C	M	intergenic	NA	NA	NA
13394	11	44045710	44045710	A	G	A	R	UTR5	ACCS	NA	NA
13394	11	51437161	51437161	A	T	A	W	intergenic	NA	NA	NA
13394	11	55491937	55491937	T	A	T	W	exonic	OR10AG1	silent	NM_001005491:p.V193V
13394	11	57964205	57964205	A	C	A	M	UTR5	OR5B12	NA	NA
13394	11	123495037	123495037	C	G	C	S	intronic	VWA5A	NA	NA
13394	11	128826458	128826458	C	A	C	M	exonic	BARX2	missense	NM_003658:p.P264Q
13394	11	129792056	129792056	G	A	G	R	exonic	ADAMTS8	missense	NM_007037:p.A362V
13394	12	6313147	6313147	T	C	T	Y	intronic	TNFRSF1A	NA	NA
13394	12	38043241	38043241	G	C	G	S	exonic	KIF21A	missense	NM_017641:p.S315R
13394	12	62551997	62551997	C	-	T	*/-C	intronic	SRGAP1	NA	NA
13394	12	99429098	99429098	T	C	T	Y	intronic	NR1H4	NA	NA
13394	12	116169744	116169744	G	T	G	K	intronic	NOS1	NA	NA
13394	12	120666060	120666060	G	A	G	R	intronic	TMEM120B	NA	NA
13394	14	64078590	64078590	C	A	C	M	exonic	HSPA2	missense	NM_021979:p.P424T
13394	14	87486786	87486786	T	C	T	Y	exonic	GALC	silent	NM_000153:p.Q407Q
13394	15	26191700	26191700	G	T	G	K	exonic	HERC2	silent	NM_004667:p.P282P
13394	15	28193412	28193412	C	T	C	Y	ncRNA	FAM7A1	NA	NA
13394	15	60327039	60327039	G	A	G	R	intergenic	NA	NA	NA
13394	15	71963581	71963581	G	C	G	S	exonic	TBC1D21	missense	NM_153356:p.K103N
13394	15	73290122	73290122	G	A	G	R	intronic	C15orf39	NA	NA
13394	15	83206930	83206930	G	A	G	R	exonic	ALPK3	missense	NM_020778:p.C1599Y
13394	15	83207845	83207845	G	T	G	K	exonic	ALPK3	missense	NM_020778:p.R1692L
13394	15	97309234	97309234	C	G	C	S	intronic	IGF1R	NA	NA
13394	15	99409559	99409559	A	T	A	W	exonic	LRRK1	missense	NM_024652:p.Y1187F
13394	16	20348555	20348555	T	C	T	Y	exonic	ACSM5	silent	NM_017888:p.P352P
13394	16	47766641	47766641	C	A	C	M	intergenic	NA	NA	NA
13394	16	80590705	80590705	G	C	G	S	exonic	SDR42E1	missense	NM_145168:p.H232D
13394	16	82787584	82787584	A	G	A	R	intronic	ADAD2	NA	NA
13394	17	7520310	7520310	G	-	A	*/-G	exonic	TP53	FS_del	NM_001126114:c.102_102delC
13394	17	22375391	22375391	G	A	G	R	intergenic	NA	NA	NA
13394	17	24929524	24929525	AG	-	A	*/-AG	intronic	GIT1	NA	NA
13394	17	27645575	27645575	G	C	G	S	splicing	RHBDL3	NA	NA
13394	17	30873396	30873396	G	C	G	S	intronic	SLFN12L	NA	NA
13394	17	39687558	39687558	T	C	T	Y	splicing	SLC4A1	NA	NA
13394	17	56800662	56800662	C	G	C	S	intronic	BCAS3	NA	NA
13394	17	59981631	59981631	G	C	G	S	intronic	SMURF2	NA	NA
13394	17	68700859	68700859	C	G	C	S	exonic	COG1	missense	NM_018714:p.A19G
13394	17	70743419	70743419	T	A	T	W	UTR3	NUP85	NA	NA
13394	18	99200	99200	A	C	A	M	ncRNA	ROCK1P1	NA	NA

13394	18	16771423	16771423	T	G	T	K	intergenic	NA	NA	NA
13394	18	27180162	27180162	A	G	A	R	intronic	DSG1	NA	NA
13394	18	30718652	30718652	G	T	G	K	intronic	DTNA	NA	NA
13394	18	45615668	45615668	T	C	T	Y	intronic	MYO5B	NA	NA
13394	19	9939643	9939643	G	A	G	R	intronic	COL5A3	NA	NA
13394	19	32425233	32425233	T	A	T	W	intergenic	NA	NA	NA
13394	19	47925662	47925662	G	A	G	R	intronic	PSG3	NA	NA
13394	19	51308647	51308647	C	A	C	M	intergenic	NA	NA	NA
13394	19	58577851	58577851	C	T	C	Y	ncRNA	ZNF525	NA	NA
13394	19	59417894	59417894	C	T	C	Y	intronic	LILRB3	NA	NA
13394	19	59970480	59970480	C	G	C	S	intronic	KIR3DP1	NA	NA
13394	20	1405926	1405926	T	C	T	Y	intronic	SIRPB2	NA	NA
13394	20	11549803	11549803	G	T	G	K	intergenic	NA	NA	NA
13394	20	30248186	30248186	G	A	G	R	exonic	PLAGL2	silent	NM_002657:p.L407L
13394	20	35065711	35065711	T	C	T	Y	intronic	RBL1	NA	NA
13394	20	36580095	36580095	C	T	C	Y	intronic	RALGAPB	NA	NA
13394	21	10037135	10037135	C	G	C	S	intergenic	NA	NA	NA
13394	21	10146079	10146079	C	A	C	M	intergenic	NA	NA	NA
13394	21	20053821	20053821	C	T	C	Y	intergenic	NA	NA	NA
13394	21	25881860	25881860	G	A	G	R	intronic	MRPL39	NA	NA
13394	21	46356637	46356637	G	C	G	S	exonic	COL6A2	missense	NM_058174:p.Q144H
13394	22	15906017	15906017	A	G	A	R	ncRNA	CECR7	NA	NA
13394	22	37554250	37554250	C	T	C	Y	exonic	NPTXR	missense	NM_014293:p.E280K
13394	X	8957482	8957482	C	T	C	Y	intronic	FAM9B	NA	NA
13394	X	48537404	48537404	C	T	C	Y	exonic	GATA1	silent	NM_002049:p.S377S
13394	X	74565796	74565796	C	G	C	S	intronic	ZDHHC15	NA	NA
13394	X	81648556	81648556	C	A	C	M	intergenic	NA	NA	NA
13394	X	100798410	100798410	G	A	G	R	exonic	ARMCX2	missense	NM_177949:p.A274V
13394	Y	11756702	11756702	A	G	A	R	intergenic	NA	NA	NA
13394	Y	57411299	57411299	G	C	G	S	intergenic	NA	NA	NA
13542	1	13095618	13095618	T	A	T	W	intergenic	NA	NA	NA
13542	1	54200653	54200653	G	C	G	S	exonic	LRRC42	missense	NM_052940:p.E304Q
13542	1	57383576	57383576	C	A	C	M	exonic	DAB1	missense	NM_021080:p.C61F
13542	1	60335857	60335857	C	T	C	Y	intergenic	NA	NA	NA
13542	1	70030416	70030416	G	C	G	S	exonic	LRRC7	missense	NM_020794:p.D98H
13542	1	70593447	70593447	G	A	G	R	exonic	HHLA3	missense	NM_001036645:p.M75I
13542	1	70668055	70668055	G	T	G	K	intronic	CTH	NA	NA
13542	1	74421811	74421811	C	A	C	M	exonic	LRRIQ3	missense	NM_001105659:p.C49F
13542	1	101509170	101509170	C	A	C	M	intergenic	NA	NA	NA
13542	1	101509171	101509171	A	G	A	R	intergenic	NA	NA	NA
13542	1	116880007	116880007	A	T	A	W	ncRNA	CD58	NA	NA
13542	1	116880008	116880008	A	T	A	W	ncRNA	CD58	NA	NA
13542	1	117712508	117712512	TTCAA	-	C	*/-TTCAA	exonic	MAN1A2	FS_del	NM_006699:p.60_62del
13542	1	141481476	141481476	G	A	G	R	intergenic	NA	NA	NA
13542	1	141482012	141482012	G	A	G	R	intergenic	NA	NA	NA
13542	1	141527398	141527398	G	A	G	R	intergenic	NA	NA	NA
13542	1	141727599	141727599	G	A	G	R	intergenic	NA	NA	NA
13542	1	142206543	142206543	T	G	T	K	intergenic	NA	NA	NA
13542	1	142382204	142382204	T	G	T	K	intergenic	NA	NA	NA
13542	1	143574754	143574754	T	C	T	Y	exonic	PDE4DIP	silent	NM_001198834:p.K2002K
13542	1	147358220	147358220	C	T	C	Y	intergenic	NA	NA	NA
13542	1	147366441	147366441	C	A	C	M	intergenic	NA	NA	NA
13542	1	147372697	147372697	C	T	C	Y	intergenic	NA	NA	NA
13542	1	148459696	148459696	G	T	G	K	intronic	ANP32E	NA	NA
13542	1	150276038	150276038	G	C	G	S	UTR5	S100A11	NA	NA
13542	1	150458174	150458174	G	A	G	R	exonic	HRNR	missense	NM_001009931:p.S852L
13542	1	151379548	151379548	A	T	A	W	ncRNA	SPRR2C	NA	NA
13542	1	154885048	154885048	G	A	G	R	exonic	BCAN	silent	NM_198427:p.Q278Q
13542	1	159762068	159762068	G	C	G	S	exonic	HSPA6	missense	NM_002155:p.Q332H
13542	1	159762807	159762807	G	T	G	K	exonic	HSPA6	missense	NM_002155:p.V579F
13542	1	166686103	166686103	G	A	G	R	intergenic	NA	NA	NA
13542	1	194887810	194887810	A	T	A	W	UTR5	CFH	NA	NA
13542	1	199297072	199297072	G	C	G	S	exonic	CACNA15	silent	NM_000069:p.T1067T
13542	1	202083412	202083412	G	C	G	S	exonic	ZC3H11A	missense	NM_014827:p.R507P
13542	1	202705205	202705205	G	C	G	S	exonic	PIK3C2B	missense	NM_002646:p.P117A
13542	1	203954110	203954110	T	C	T	Y	exonic	NUCKS1	missense	NM_022731:p.K218R
13542	1	209657857	209657857	G	C	G	S	ncRNA	C1orf97	NA	NA
13542	1	212892851	212892851	A	T	A	W	exonic	CENPF	missense	NM_016343:p.S2740C
13542	1	214238752	214238752	C	T	Y		intronic	USH2A	NA	NA
13542	1	220781928	220781928	C	A	C	M	intronic	HHIPL2	NA	NA
13542	1	224896374	224896374	G	C	G	S	exonic	ITPKB	missense	NM_002221:p.I774M
13542	1	241560459	241560459	T	C	T	Y	intronic	SDCCAG8	NA	NA
13542	1	245836265	245836265	A	T	A	W	exonic	OR2G3	missense	NM_001001914:p.Y252F
13542	1	246351927	246351927	G	A	G	R	upstream	OR2M1P	NA	NA
13542	1	246636973	246636973	A	G	A	R	exonic	OR2T1	missense	NM_030904:p.K352R
13542	2	14056817	14056817	A	C	A	M	intergenic	NA	NA	NA
13542	2	43885862	43885862	C	T	C	Y	exonic	DYNC2L1	silent	NM_001193464:p.V323V
13542	2	67483870	67483870	A	T	A	W	exonic	ETAA1	silent	NM_019002:p.T184T
13542	2	71118564	71118564	C	A	C	M	intergenic	NA	NA	NA

13542	2	71736785	71736785	C	A	C	M	intronic	DYSF	NA	NA
13542	2	73847175	73847175	G	A	G	R	exonic	DUSP11	silent	NM_003584:p.L271L
13542	2	86622901	86622901	C	G	C	S	exonic	RNF103-VPS;	missense	NM_016079:p.D31H
13542	2	88164897	88164897	G	T	G	K	intronic	SMYD1	NA	NA
13542	2	90976553	90976553	G	T	G	K	intergenic	NA	NA	NA
13542	2	94767361	94767361	A	T	A	W	intergenic	NA	NA	NA
13542	2	96382733	96382733	C	A	C	M	intronic	NCAPH	NA	NA
13542	2	100574055	100574055	C	A	C	M	intergenic	NA	NA	NA
13542	2	132098058	132098058	G	T	G	K	ncRNA	POTEKP	NA	NA
13542	2	132742406	132742406	G	T	G	K	intergenic	NA	NA	NA
13542	2	139043096	139043096	A	T	A	W	exonic	SPOPL	silent	NM_001001664:p.P385P
13542	2	162737742	162737742	C	T	C	Y	intronic	FAP	NA	NA
13542	2	168732055	168732055	C	A	C	M	splicing	STK39	missense	NM_013233:p.G144C
13542	2	173802644	173802644	A	G	A	R	ncRNA	LOC339751	NA	NA
13542	2	183329236	183329236	A	G	A	R	intronic	DNAJC10	NA	NA
13542	2	189583130	189583130	C	T	C	Y	intronic	COL3A1	NA	NA
13542	2	189634658	189634658	T	A	T	W	intronic	COL5A2	NA	NA
13542	2	201224015	201224015	T	A	T	W	exonic	AOX1	missense	NM_001159:p.I974N
13542	2	212252159	212252159	G	A	G	R	intronic	ERBB4	NA	NA
13542	2	227682177	227682177	T	A	T	W	intronic	COL4A4	NA	NA
13542	3	3056782	3056782	A	G	A	R	exonic	CNTN4	missense	NM_175613:p.Y414C
13542	3	26032472	26032472	C	A	C	M	intergenic	NA	NA	NA
13542	3	39160796	39160796	G	A	G	R	exonic	CSRNP1	nonsense	NM_033027:p.R206X
13542	3	39660684	39660684	G	A	G	R	intergenic	NA	NA	NA
13542	3	42704789	42704789	A	G	A	R	exonic	KBTBD5	missense	NM_152393:p.Y435C
13542	3	43383420	43383420	C	A	C	M	exonic	ANO10	silent	NM_018075:p.G655G
13542	3	44842782	44842782	A	G	A	R	intronic	KIF15	NA	NA
13542	3	44857600	44857600	C	A	C	M	exonic	KIF15	missense	NM_020242:p.H1151N
13542	3	46459930	46459930	A	G	A	R	intronic	LTF	NA	NA
13542	3	95277756	95277756	G	T	G	K	intronic	NSUN3	NA	NA
13542	3	99440515	99440515	C	T	C	Y	intergenic	NA	NA	NA
13542	3	108308106	108308106	A	T	A	W	intergenic	NA	NA	NA
13542	3	110256429	110256429	T	C	T	Y	intronic	MORC1	NA	NA
13542	3	114778366	114778366	A	G	A	R	intronic	SIDT1	NA	NA
13542	3	120837246	120837246	G	A	G	R	intergenic	NA	NA	NA
13542	3	125834126	125834126	G	T	G	K	exonic	KALRN	missense	NM_007064:p.K85N
13542	3	141889967	141889967	C	A	C	M	exonic	TRIM42	missense	NM_152616:p.Q585K
13542	3	161612663	161612663	A	C	A	M	intronic	SMC4	NA	NA
13542	3	161786016	161786016	C	T	C	Y	intergenic	NA	NA	NA
13542	3	180426686	180426686	A	G	A	R	intronic	PIK3CA	NA	NA
13542	3	181098721	181098721	C	T	C	Y	exonic	PEX5L	missense	NM_016559:p.G34D
13542	4	539189	539189	T	C	T	Y	intergenic	NA	NA	NA
13542	4	985294	985294	G	A	G	R	exonic	IDUA	missense	NM_000203:p.E178K
13542	4	985327	985327	G	C	G	S	exonic	IDUA	missense	NM_000203:p.D189H
13542	4	4559997	4559997	T	A	T	W	intronic	STX18	NA	NA
13542	4	9009992	9009992	C	A	C	M	intergenic	NA	NA	NA
13542	4	39449110	39449110	C	T	C	Y	intronic	UBE2K	NA	NA
13542	4	48799400	48799400	G	A	G	R	intergenic	NA	NA	NA
13542	4	48809044	48809044	C	A	C	M	intergenic	NA	NA	NA
13542	4	48816869	48816869	C	T	C	Y	intergenic	NA	NA	NA
13542	4	48817690	48817690	G	T	G	K	intergenic	NA	NA	NA
13542	4	64957634	64957634	C	T	C	Y	exonic	TECRL	missense	NM_001010874:p.E11K
13542	4	83566334	83566334	A	T	A	W	ncRNA	HNRPL	NA	NA
13542	4	88799385	88799385	-	T	C	*/+T	intronic	DMP1	NA	NA
13542	4	95336138	95336138	C	T	C	Y	intergenic	NA	NA	NA
13542	4	120462785	120462785	A	G	A	R	upstream	FABP2	NA	NA
13542	4	130233655	130233655	-	A	C	*/+A	intronic	SCLT1	NA	NA
13542	4	155885520	155885520	C	A	C	M	intronic	LRAT	NA	NA
13542	4	159769356	159769356	G	-	T	*/-G	intronic	RXFP1	NA	NA
13542	4	159778642	159778642	A	G	A	R	exonic	RXFP1	missense	NM_021634:p.Q335R
13542	4	189161626	189161626	A	G	A	R	exonic	ZFP42	missense	NM_174900:p.K224R
13542	4	191117570	191117570	A	T	A	W	intronic	FRG1	NA	NA
13542	5	3329467	3329467	G	A	G	R	intergenic	NA	NA	NA
13542	5	7349376	7349376	A	G	A	R	intergenic	NA	NA	NA
13542	5	7944579	7944579	A	G	A	R	intronic	MTRR	NA	NA
13542	5	24547165	24547165	G	A	G	R	intronic	CDH10	NA	NA
13542	5	35730245	35730245	C	T	C	Y	intronic	SPEF2	NA	NA
13542	5	41349597	41349597	G	T	G	K	exonic	PLCXD3	missense	NM_001005473:p.T282K
13542	5	74052669	74052669	C	G	C	S	intronic	HEXB	NA	NA
13542	5	76005257	76005257	C	A	C	M	intronic	IQGAP2	NA	NA
13542	5	94831455	94831455	G	T	G	K	intronic	TTC37	NA	NA
13542	5	131036112	131036112	C	A	C	M	exonic	FNIP1	nonsense	NM_001008738:p.G614X
13542	5	132260182	132260182	G	T	G	K	exonic	AFF4	nonsense	NM_014423:p.S680X
13542	5	140461639	140461639	G	A	G	R	exonic	PCDHB3	missense	NM_018937:p.A408T
13542	5	140517330	140517330	G	A	G	R	ncRNA	PCDHB17	NA	NA
13542	5	140553214	140553214	T	G	T	K	exonic	PCDHB10	missense	NM_018930:p.F302C
13542	5	141013648	141013648	T	A	T	W	UTR3	ARAP3	NA	NA
13542	5	146066382	146066382	C	G	C	S	intronic	PPP2R2B	NA	NA
13542	5	146977916	146977916	A	T	A	W	intronic	JAKMIP2	NA	NA

13542	5	150090972	150090972	T	A	T	W	intronic	DCTN4	NA	NA
13542	5	151029586	151029586	C	T	C	Y	intronic	SPARC	NA	NA
13542	5	154852367	154852367	T	A	T	W	intergenic	NA	NA	NA
13542	5	154852368	154852368	T	A	T	W	intergenic	NA	NA	NA
13542	5	159613198	159613198	C	A	C	M	exonic	CCNJL	missense	NM_024565:p.R358L
13542	6	3977627	3977627	A	G	A	R	exonic	PRPF4B	missense	NM_003913:p.R293G
13542	6	26025218	26025218	A	T	A	W	exonic	SLC17A2	missense	NM_005835:p.S242R
13542	6	26308119	26308119	C	A	C	M	exonic	HIST1H2BF	silent	NM_003522:p.A118A
13542	6	29751828	29751828	G	C	G	S	intronic	ZFP57	NA	NA
13542	6	31936332	31936332	C	A	C	M	exonic	NEU1	missense	NM_000434:p.G221W
13542	6	33516680	33516680	C	T	C	Y	exonic	SYNGAP1	missense	NM_006772:p.L625F
13542	6	43328469	43328469	G	T	G	K	exonic	TTBK1	silent	NM_032538:p.G41G
13542	6	56977510	56977510	A	G	A	R	intronic	BEND6	NA	NA
13542	6	74139684	74139684	C	A	C	M	intergenic	NA	NA	NA
13542	6	74420292	74420292	G	A	G	R	exonic	SLC17A5	silent	NM_012434:p.G13G
13542	6	88211337	88211337	G	C	G	S	intronic	C6orf165	NA	NA
13542	6	97081081	97081081	A	T	A	W	intronic	KIAA0776	NA	NA
13542	6	97160504	97160504	C	G	C	S	exonic	FHL5	missense	NM_001170807:p.R114G
13542	6	117716586	117716586	C	A	C	M	exonic	ROS1	missense	NM_002944:p.R2269L
13542	6	131318051	131318051	G	A	G	R	exonic	EPB41L2	nonsense	NM_001199389:p.Q198X
13542	6	132037094	132037094	G	T	G	K	exonic	ENPP3	missense	NM_005021:p.A248S
13542	6	146286537	146286537	C	T	C	Y	exonic	SHPRH	silent	NM_001042683:p.Q1160Q
13542	6	153336002	153336002	C	T	C	Y	intronic	FBXO5	NA	NA
13542	6	157563827	157563827	T	C	T	Y	exonic	ARID1B	silent	NM_020732:p.N1469N
13542	6	160940684	160940684	G	A	G	R	intronic	LPA	NA	NA
13542	6	168795740	168795740	G	A	G	R	exonic	SMOC2	missense	NM_022138:p.V409M
13542	6	170437197	170437197	G	A	G	R	intronic	DLL1	NA	NA
13542	7	2400234	2400234	G	A	G	R	intergenic	NA	NA	NA
13542	7	6703800	6703800	T	C	T	Y	intronic	ZNF12	NA	NA
13542	7	6737960	6737960	A	G	A	R	intergenic	NA	NA	NA
13542	7	30058957	30058957	A	G	A	R	exonic	PLEKHA8	missense	NM_032639:p.E249G
13542	7	43513357	43513357	T	A	T	W	exonic	HECW1	missense	NM_015052:p.F1243Y
13542	7	45668218	45668218	G	T	G	K	exonic	ADCY1	silent	NM_021116:p.P495P
13542	7	62991592	62991592	G	T	G	K	intergenic	NA	NA	NA
13542	7	65254645	65254645	G	T	G	K	exonic	CRCP	nonsense	NM_014478:p.E105X
13542	7	71874658	71874658	T	C	T	Y	intronic	TYW1B	NA	NA
13542	7	87630347	87630347	A	G	A	R	exonic	ADAM22	silent	NM_016351:p.L664L
13542	7	90194129	90194129	G	T	G	K	intronic	CDK14	NA	NA
13542	7	100017928	100017928	C	G	C	S	exonic	LRCH4	missense	NM_002319:p.R104T
13542	7	107408439	107408439	C	A	C	M	exonic	LAMB1	nonsense	NM_002291:p.G244X
13542	7	127836822	127836822	C	A	C	M	intronic	IMPDH1	NA	NA
13542	7	142284661	142284661	C	T	C	Y	exonic	TRPV6	missense	NM_018646:p.R180Q
13542	7	143288843	143288843	C	A	C	M	exonic	OR2F1	missense	NM_012369:p.P283T
13542	8	41641662	41641662	C	T	C	Y	exonic	ANK1	missense	NM_001142445:p.V13M
13542	8	56698215	56698215	G	T	G	K	intergenic	NA	NA	NA
13542	8	86224364	86224364	-	A	G	*/+A	exonic	LRRCC1	FS_ins	NM_033402:p.E404fs
13542	8	86224369	86224369	G	A	G	R	exonic	LRRCC1	silent	NM_033402:p.K405K
13542	8	86224370	86224370	C	T	C	Y	exonic	LRRCC1	missense	NM_033402:p.P406S
13542	8	87752363	87752363	G	A	G	R	exonic	CNGB3	missense	NM_019098:p.R140C
13542	8	105430329	105430329	A	T	A	W	exonic	TM7SF4	missense	NM_030788:p.M125L
13542	8	113377203	113377203	A	G	A	R	intronic	CSMD3	NA	NA
13542	8	113767075	113767075	C	A	C	M	exonic	CSMD3	missense	NM_198123:p.G740W
13542	8	117948218	117948218	T	A	T	W	intronic	RAD21	NA	NA
13542	8	142223524	142223524	C	G	C	S	exonic	DENND3	missense	NM_014957:p.P160R
13542	9	2071948	2071948	G	A	G	R	exonic	SMARCA2	missense	NM_139045:p.M767I
13542	9	3215139	3215139	G	C	G	S	exonic	RFX3	missense	NM_134428:p.P718R
13542	9	67890131	67890131	C	T	C	Y	intergenic	NA	NA	NA
13542	9	67893106	67893106	G	A	G	R	intergenic	NA	NA	NA
13542	9	67921464	67921464	G	T	G	K	ncRNA	LOC642236	NA	NA
13542	9	71931047	71931047	C	A	C	M	exonic	MAMDC2	silent	NM_153267:p.R266R
13542	9	71931050	71931050	G	A	G	R	exonic	MAMDC2	missense	NM_153267:p.D267N
13542	9	83392541	83392541	C	G	C	S	exonic	TLE1	missense	NM_005077:p.G618R
13542	9	85053063	85053063	C	G	C	S	exonic	FRMD3	missense	NM_174938:p.E462Q
13542	9	85696184	85696184	A	T	A	W	exonic	KIF27	missense	NM_017576:p.L552Q
13542	9	89937544	89937544	G	C	G	S	intronic	FAM75C2	NA	NA
13542	9	108918014	108918014	G	A	G	R	intergenic	NA	NA	NA
13542	9	111210542	111210542	A	C	A	M	ncRNA	PTPN3	NA	NA
13542	9	116445457	116445457	C	A	C	M	UTR3	C9orf91	NA	NA
13542	9	129750293	129750293	G	A	G	R	exonic	FAM102A	missense	NM_203305:p.P23L
13542	9	134193586	134193586	C	T	C	Y	exonic	SETX	missense	NM_015046:p.E1074K
13542	9	137517853	137517853	C	T	C	Y	exonic	KIAA0649	missense	NM_014811:p.P559L
13542	10	15131863	15131863	G	T	G	K	intronic	OLAH	NA	NA
13542	10	16566716	16566716	G	T	G	K	exonic	PTER	silent	NM_030664:p.T109T
13542	10	18127637	18127637	G	A	G	R	intergenic	NA	NA	NA
13542	10	26895904	26895904	G	C	G	S	exonic	APBB1IP	missense	NM_019043:p.K494N
13542	10	42248682	42248682	T	A	T	W	intergenic	NA	NA	NA
13542	10	42248683	42248683	C	G	C	S	intergenic	NA	NA	NA
13542	10	47990495	47990495	C	T	C	Y	UTR5	ZNF488	NA	NA
13542	10	51438682	51438682	A	C	A	M	exonic	AGAP6	missense	NM_001077665:p.K264T

13542	10	64651946	64651946	T	C	T	Y	intronic	JMJD1C	NA	NA	
13542	10	75535004	75535007	CCGA	-	T	*-/CCGA	exonic	VCL	FS_del	NM_014000:p.774_775del	
13542	10	75553989	75553989	C	T	C	Y	intronic	AP3M1	NA	NA	
13542	10	78317328	78317328	G	T	G	K	intronic	KCNMA1	NA	NA	
13542	10	78469424	78469424	G	A	G	R	intronic	KCNMA1	NA	NA	
13542	10	95033852	95033852	C	T	C	Y	intergenic	NA	NA	NA	
13542	10	118448098	118448098	C	A	C	M	intronic	HSPA12A	NA	NA	
13542	11	271741	271741	A	C	A	M	exonic	NLRP6	silent	NM_138329:p.G669G	
13542	11	5418743	5418743	T	C	T	Y	exonic	OR51I1	missense	NM_001005288:p.D193G	
13542	11	5431442	5431442	C	A	C	M	exonic	OR51I2	silent	NM_001004754:p.R50R	
13542	11	10782145	10782145	G	A	G	R	exonic	EIF4G2	silent	NM_001042559:p.L193L	
13542	11	13399826	13399826	C	A	C	M	exonic	BTBD10	silent	NM_032320:p.T79T	
13542	11	18240268	18240268	C	A	C	M	intergenic	NA	NA	NA	
13542	11	49383427	49383427	T	A	T	W	intergenic	NA	NA	NA	
13542	11	50336761	50336761	C	T	C	Y	downstream	LOC646813	NA	NA	
13542	11	55438404	55438404	A	T	A	W	exonic	OR5W2	silent	NM_001001960:p.T77T	
13542	11	55503870	55503870	G	A	G	R	ncRNA	OR7E5P	NA	NA	
13542	11	55814548	55814548	C	A	C	M	exonic	OR8H1	missense	NM_001005199:p.M189I	
13542	11	59028208	59028208	T	A	T	W	exonic	OR4D11	missense	NM_001004706:p.L195H	
13542	11	85401061	85401061	T	-	A	*-/T	exonic	PICALM	FS_del	NM_007166:p.N190fs	
13542	11	105294748	105294748	A	G	A	R	exonic	GRIA4	missense	NM_000829:p.H457R	
13542	11	107904106	107904106	T	G	T	K	exonic	EXPH5	silent	NM_015065:p.A153A	
13542	11	123103312	123103312	C	A	C	M	intronic	ZNF202	NA	NA	
13542	11	123352861	123352861	G	T	G	K	exonic	OR10S1	silent	NM_001004474:p.R250R	
13542	11	123405914	123405914	C	G	C	S	exonic	OR10G8	missense	NM_001004464:p.I125M	
13542	12	733449	733449	C	T	C	Y	exonic	WNK19	missense	NM_018979:p.P153S	
13542	12	16595421	16595421	G	C	G	S	UTR3	LMO3	NA	NA	
13542	12	22557460	22557460	C	G	C	S	intronic	KIAA0528	NA	NA	
13542	12	26600489	26600489	T	C	T	Y	exonic	ITPR2	silent	NM_002223:p.E1636E	
13542	12	27677677	27677677	G	T	G	K	intronic	PPF1BP1	NA	NA	
13542	12	33470346	33470346	G	T	G	K	exonic	SYT10	nonsense	NM_198992:p.S168X	
13542	12	38050105	38050105	-	A	T	*/+A	intronic	KIF21A	NA	NA	
13542	12	39015017	39015017	T	A	T	W	intronic	LRRK2	NA	NA	
13542	12	39039256	39039256	G	T	G	K	intronic	LRRK2	NA	NA	
13542	12	48005912	48005912	G	T	G	K	exonic	TROAP	missense	NM_005480:p.C204F	
13542	12	48550649	48550649	G	T	G	K	exonic	FAIM2	missense	NM_012306:p.P286T	
13542	12	51171213	51171213	C	T	C	Y	exonic	KRT6A	missense	NM_005554:p.E256K	
13542	12	51360537	51360537	C	T	C	Y	upstream	KRT1	NA	NA	
13542	12	52636422	52636422	C	T	C	Y	exonic	HOXC12	silent	NM_173860:p.R218R	
13542	12	52653556	52653556	C	G	C	S	exonic	HOXC11	missense	NM_014212:p.S88R	
13542	12	54507422	54507422	G	A	G	R	exonic	DNAJC14	nonsense	NM_032364:p.R430X	
13542	12	61682711	61682711	A	G	A	R	intergenic	NA	NA	NA	
13542	12	62502194	62502194	G	T	G	K	intergenic	NA	NA	NA	
13542	12	69024121	69024121	T	A	T	W	ncRNA	CNOT2	NA	NA	
13542	12	77117205	77117205	T	A	T	W	intronic	NAV3	NA	NA	
13542	12	77117206	77117206	T	A	T	W	intronic	NAV3	NA	NA	
13542	12	110340260	110340260	C	T	C	Y	intronic	SH2B3	NA	NA	
13542	12	112028117	112028117	T	A	T	W	intronic	RASAL1	NA	NA	
13542	12	119516328	119516328	C	T	C	Y	intergenic	NA	NA	NA	
13542	12	125561130	125561130	A	T	A	W	intergenic	NA	NA	NA	
13542	12	126368183	126368183	A	G	A	R	intergenic	NA	NA	NA	
13542	12	128066002	128066002	G	A	G	R	intergenic	NA	NA	NA	
13542	12	130050768	130050768	A	T	A	W	intronic	GPR133	NA	NA	
13542	12	131074294	131074294	A	T	A	W	exonic	EP400	silent	NM_015409:p.I1569I	
13542	12	131860882	131860882	A	T	A	W	exonic	GOLGA3	missense	NM_005895:p.L1414Q	
13542	13	18699345	18699345	A	G	A	R	intergenic	NA	NA	NA	
13542	13	46307669	46307669	A	T	A	W	exonic	HTR2A	missense	NM_000621:p.F240L	
13542	13	51418502	51418502	C	T	C	Y	exonic	ATP7B	silent	NM_000053:p.T993T	
13542	14	18187106	18187106	C	G	C	S	intergenic	NA	NA	NA	
13542	14	18447759	18447759	G	T	G	K	exonic	OR11H12	missense	NM_001013354:p.G56W	
13542	14	18633560	18633560	A	C	A	M	ncRNA	POTEG	NA	NA	
13542	14	22513915	22513915	G	A	G	R	exonic	JUB	silent	NM_032876:p.A465A	
13542	14	52024963	52024963	A	G	A	R	intronic	TXNDC16	NA	NA	
13542	14	57770810	57770810	C	G	C	S	intronic	ACTR10	NA	NA	
13542	14	59133066	59133066	G	T	G	K	UTR3	RTN1	NA	NA	
13542	14	69995155	69995155	A	T	A	W	exonic	ADAM21	missense	NM_003813:p.N396Y	
13542	14	71270204	71270204	C	T	C	Y	exonic	SIPA1L1	missense	NM_015556:p.P1665S	
13542	14	85158674	85158674	A	G	A	R	exonic	FLRT2	missense	NM_013231:p.M355V	
13542	15	18741974	18741974	C	G	C	S	intergenic	NA	NA	NA	
13542	15	20513937	20513937	A	T	A	W	exonic	CYFIP1	missense	NM_001033028:p.H308L	
13542	15	28724233	28724233	G	T	G	K	intergenic	NA	NA	NA	
13542	15	65680005	65680005	C	T	C	Y	intronic	MAP2K5	NA	NA	
13542	15	75258263	75258263	C	G	C	S	exonic	PEAK1	missense	NM_024776:p.E1021Q	
13542	15	86952259	86952259	T	G	T	K	upstream	MIR1179	NA	NA	
13542	15	100061582	100061582	T	C	T	Y	intronic	TARSL2	NA	NA	
13542	16	28095994	28095994	G	C	G	S	intronic	XPO6	NA	NA	
13542	16	33845035	33845035	T	A	T	W	intergenic	NA	NA	NA	
13542	16	34569808	34569808	C	A	C	M	ncRNA	LOC146481	NA	NA	
13542	16	55424887	55424887	A	G	A	R	intronic	NUP93	NA	NA	



13542	16	57174180	57174180	A	G	A	R	intronic	CNOT1	NA	NA
13542	16	66423859	66423859	C	A	C	M	splicing	CENPT	missense	NM_025082:p.R67S
13542	16	76641062	76641062	C	A	C	M	intergenic	NA	NA	NA
13542	17	7519194	7519194	C	-	G	*-/C	exonic	TP53	FS_del	NM_001126117:p.G22fs
13542	17	13920935	13920935	G	A	G	R	exonic	COX10	silent	NM_001303:p.K112K
13542	17	21266740	21266740	T	C	T	Y	intergenic	NA	NA	NA
13542	17	30758255	30758255	G	A	G	R	intergenic	NA	NA	NA
13542	17	36833559	36833559	C	A	C	M	exonic	KRT37	missense	NM_003770:p.A186S
13542	17	55898480	55898480	T	C	T	Y	exonic	APPBP2	missense	NM_006380:p.Y209C
13542	17	59121295	59121295	A	T	A	W	intronic	MAP3K3	NA	NA
13542	18	97508	97508	C	T	C	Y	intergenic	NA	NA	NA
13542	18	99645	99645	G	A	G	R	ncRNA	ROCK1P1	NA	NA
13542	18	32578233	32578233	G	C	G	S	intronic	FHOD3	NA	NA
13542	18	41785081	41785081	G	C	G	S	exonic	KIAA1632	silent	NM_020964:p.L458L
13542	19	15654390	15654390	G	A	G	R	intronic	CYP4F12	NA	NA
13542	19	16067171	16067171	G	T	G	K	intronic	TPM4	NA	NA
13542	19	17394273	17394273	G	T	G	K	intronic	FAM125A	NA	NA
13542	19	22288835	22288835	C	G	C	S	intergenic	NA	NA	NA
13542	19	42084687	42084687	C	T	C	Y	intronic	ZNF829	NA	NA
13542	19	49314171	49314171	G	T	G	K	intronic	ZNF225	NA	NA
13542	19	51804105	51804105	G	-	T	*-/G	intronic	CALM3	NA	NA
13542	19	56611294	56611294	G	-	A	*-/G	ncRNA	LOC1001290	NA	NA
13542	19	56700208	56700208	A	T	A	W	intergenic	NA	NA	NA
13542	19	57738486	57738486	A	G	A	R	intronic	ZNF808	NA	NA
13542	19	57961135	57961135	G	A	G	R	exonic	ZNF600	silent	NM_198457:p.T562T
13542	19	58893581	58893581	A	G	A	R	downstream	MIR523	NA	NA
13542	19	59494810	59494810	A	T	A	W	intronic	LILRA3	NA	NA
13542	19	61158203	61158203	A	C	A	M	exonic	NLRP8	missense	NM_176811:p.T323P
13542	20	2525827	2525827	C	T	C	Y	exonic	TMC2	silent	NM_080751:p.G369G
13542	20	3608177	3608177	C	A	C	M	exonic	ADAM33	missense	NM_153202:p.D47Y
13542	20	10278018	10278018	G	C	G	S	intergenic	NA	NA	NA
13542	20	18418558	18418558	G	A	G	R	exonic	RBBP9	silent	NM_006606:p.D137D
13542	20	21671404	21671404	G	T	G	K	intergenic	NA	NA	NA
13542	20	29535660	29535660	C	T	C	Y	exonic	REM1	silent	NM_014012:p.F221F
13542	20	30125006	30125006	C	T	C	Y	intronic	HCK	NA	NA
13542	20	33992405	33992405	C	G	C	S	intronic	PHF20	NA	NA
13542	20	47269347	47269347	C	T	C	Y	exonic	DDX27	silent	NM_017895:p.A16A
13542	20	47956423	47956423	T	A	T	W	exonic	SPATA2	missense	NM_001135773:p.S235C
13542	20	54461188	54461188	C	T	C	Y	exonic	CASS4	missense	NM_001164116:p.R517W
13542	20	54461189	54461189	G	T	G	K	exonic	CASS4	missense	NM_001164116:p.R517L
13542	20	61452493	61452493	G	A	G	R	exonic	CHRNA4	silent	NM_000744:p.V238V
13542	21	9993135	9993135	G	T	G	K	intronic	TPTE	NA	NA
13542	21	10133316	10133316	C	A	C	M	intergenic	NA	NA	NA
13542	21	14239181	14239181	A	C	A	M	ncRNA	C21orf81	NA	NA
13542	21	20719625	20719625	G	T	G	K	intergenic	NA	NA	NA
13542	21	27228593	27228593	C	A	C	M	intronic	ADAMT5S	NA	NA
13542	21	46528278	46528278	C	A	C	M	intronic	MCM3AP	NA	NA
13542	22	31171542	31171542	A	C	A	M	intronic	BPIL2	NA	NA
13542	22	31171549	31171549	A	G	A	R	intronic	BPIL2	NA	NA
13542	22	35290384	35290384	A	T	A	W	exonic	CACNG2	missense	NM_006078:p.L311H
13542	X	5832053	5832053	C	A	C	M	intronic	NLGN4X	NA	NA
13542	X	11592456	11592456	G	A	G	R	exonic	ARHGAP6	silent	NM_006125:p.D138D
13542	X	21796472	21796472	G	T	G	K	intronic	MBTPS2	NA	NA
13542	X	26088681	26088681	C	T	C	Y	intergenic	NA	NA	NA
13542	X	27740794	27740794	G	T	G	K	intronic	MAGEB10	NA	NA
13542	X	30783002	30783002	T	C	T	Y	exonic	TAB3	missense	NM_152787:p.Q234R
13542	X	34060103	34060103	G	A	G	R	exonic	FAM47A	missense	NM_203408:p.R72C
13542	X	37798346	37798346	A	G	A	R	intronic	SYTL5	NA	NA
13542	X	44814551	44814551	G	T	G	K	intronic	KDM6A	NA	NA
13542	X	46926052	46926052	A	T	A	W	intronic	RBM10	NA	NA
13542	X	48820011	48820011	G	T	G	K	exonic	WDR45	silent	NM_007075:p.V262V
13542	X	48962904	48962904	C	G	C	S	intronic	CACNA1F	NA	NA
13542	X	64055758	64055758	G	T	G	K	exonic	ZC4H2	silent	NM_001178032:p.P127P
13542	X	65158919	65158919	C	T	C	Y	exonic	VSIG4	missense	NM_001100431:p.A277T
13542	X	69419009	69419009	G	T	G	K	intronic	RAB41	NA	NA
13542	X	70306276	70306276	C	T	C	Y	exonic	NLGN3	silent	NM_181303:p.S717S
13542	X	71789163	71789163	T	A	T	W	exonic	PHKA1	missense	NM_001172436:p.M401L
13542	X	74211877	74211877	-	A	T	*/+A	intronic	ABCB7	NA	NA
13542	X	83288631	83288631	A	C	A	M	intronic	RPS6KA6	NA	NA
13542	X	83611031	83611031	C	T	C	Y	exonic	HDX	missense	NM_001177478:p.R61K
13542	X	85227747	85227747	A	G	A	R	intergenic	NA	NA	NA
13542	X	85302956	85302956	C	T	C	Y	intronic	DACH2	NA	NA
13542	X	91020927	91020927	C	A	C	M	splicing	PCDH11X	missense	NM_032969:p.P1011Q
13542	X	99438474	99438474	G	T	G	K	exonic	PCDH19	missense	NM_001105243:p.D921E
13542	X	100542319	100542319	G	T	G	K	exonic	GLA	silent	NM_000169:p.P210P
13542	X	100798225	100798225	G	T	G	K	exonic	ARMCX2	missense	NM_177949:p.P336T
13542	X	101859016	101859016	C	A	C	M	UTR3	ARMCX5-GPI	NA	NA
13542	X	108698478	108698478	C	A	C	M	intergenic	NA	NA	NA
13542	X	108698479	108698479	C	T	C	Y	intergenic	NA	NA	NA

13542	X	135233058	135233058	C	A	C	M	exonic	GPR112	missense	NM_153834:p.R176S
13542	X	147867528	147867528	G	A	G	R	intronic	AFF2	NA	NA
13542	X	148538885	148538885	G	A	G	R	intergenic	NA	NA	NA
13542	X	151686436	151686436	C	T	C	Y	exonic	MAGEA3	silent	NM_005362:p.P129P
13542	X	153247933	153247933	G	T	G	K	exonic	FLNA	missense	NM_001456:p.P389T
13542	X	153534045	153534045	G	A	G	R	exonic	CTAG2	silent	NM_020994:p.I108I
13542	Y	11753062	11753062	A	T	A	W	intergenic	NA	NA	NA
13542	Y	11772088	11772088	G	A	G	R	intergenic	NA	NA	NA
13542	Y	11774294	11774294	G	A	G	R	intergenic	NA	NA	NA
13542	M	2037	2037	T	C	T	Y	intergenic	NA	NA	NA
13681	1	1887792	1887792	G	T	G	K	exonic	KIAA1751	silent	NM_001080484:p.R427R
13681	1	16847565	16847565	A	G	A	R	ncRNA	MST1P2	NA	NA
13681	1	22032419	22032419	G	A	G	R	exonic	HSPG2	missense	NM_005529:p.P3675L
13681	1	37107881	37107881	C	G	C	S	intronic	GRIK3	NA	NA
13681	1	50084461	50084461	C	A	C	M	intronic	AGBL4	NA	NA
13681	1	62485813	62485813	C	A	C	M	exonic	KANK4	missense	NM_181712:p.M934I
13681	1	74945346	74945346	A	T	A	W	intronic	CRYZ	NA	NA
13681	1	78988690	78988690	G	T	G	K	intergenic	NA	NA	NA
13681	1	86149611	86149611	G	A	G	R	intronic	COL24A1	NA	NA
13681	1	94725843	94725843	G	T	G	K	exonic	ABCD3	missense	NM_002858:p.A325S
13681	1	100700908	100700908	G	A	G	R	exonic	CDC14A	missense	NM_033312:p.G241S
13681	1	100700909	100700909	G	T	G	K	exonic	CDC14A	missense	NM_033312:p.G241V
13681	1	108095313	108095313	C	A	C	M	exonic	VAV3	missense	NM_006113:p.G403V
13681	1	144312975	144312975	-	T	C	*/+T	exonic	POLR3C	FS_ins	NM_006468:p.S263fs
13681	1	154372508	154372508	C	T	C	Y	exonic	LMNA	missense	NM_170708:p.R377C
13681	1	156783703	156783703	A	T	A	W	exonic	OR6Y1	missense	NM_001005189:p.Y273N
13681	1	156914274	156914274	C	G	C	S	intronic	SPTA1	NA	NA
13681	1	156914286	156914286	G	T	G	K	intronic	SPTA1	NA	NA
13681	1	157429831	157429831	T	A	T	W	intronic	CADM3	NA	NA
13681	1	174792355	174792355	A	T	A	W	exonic	PAPPA2	missense	NM_021936:p.T92S
13681	1	177344821	177344821	C	G	C	S	exonic	ABL2	missense	NM_001168236:p.G714A
13681	1	177823283	177823283	C	A	C	M	intergenic	NA	NA	NA
13681	1	184301102	184301102	G	T	G	K	exonic	HMCN1	missense	NM_031935:p.Q2541H
13681	1	185191774	185191774	C	T	C	Y	intronic	PLA2G4A	NA	NA
13681	1	189382660	189382660	C	A	C	M	intergenic	NA	NA	NA
13681	1	194551698	194551698	C	A	C	M	exonic	KCNT2	missense	NM_198503:p.E810D
13681	1	199224010	199224010	C	A	C	M	intronic	KIF21B	NA	NA
13681	1	200836115	200836115	G	T	G	K	exonic	SYT2	silent	NM_177402:p.G304G
13681	1	213111392	213111392	T	A	T	W	intergenic	NA	NA	NA
13681	1	246058343	246058343	C	A	C	M	intergenic	NA	NA	NA
13681	2	27159759	27159759	C	T	C	Y	exonic	EMILIN1	silent	NM_007046:p.L606L
13681	2	27656470	27656470	C	A	C	M	exonic	C2orf16	missense	NM_032266:p.S1176Y
13681	2	48540677	48540677	A	T	A	W	ncRNA	KLRAQ1	NA	NA
13681	2	55444590	55444590	C	T	C	Y	splicing	CCDC88A	silent	NM_018084:p.E162E
13681	2	102379637	102379637	C	A	C	M	exonic	IL18R1	missense	NM_003855:p.H495Q
13681	2	102407169	102407169	A	T	A	W	exonic	IL18RAP	nonsense	NM_003853:p.K148X
13681	2	139024865	139024865	C	T	C	Y	intronic	SPOPL	NA	NA
13681	2	141176267	141176267	C	T	C	Y	exonic	LRP1B	missense	NM_018557:p.G2072E
13681	2	141662516	141662516	G	C	G	S	exonic	LRP1B	silent	NM_018557:p.T319T
13681	2	161843855	161843855	C	G	C	S	intergenic	NA	NA	NA
13681	2	168279328	168279328	A	T	A	W	intergenic	NA	NA	NA
13681	2	175666229	175666229	G	A	G	R	exonic	ATF2	missense	NM_001880:p.H331Y
13681	2	178570559	178570559	G	C	G	S	intronic	PDE11A	NA	NA
13681	2	183644985	183644985	A	T	A	W	intergenic	NA	NA	NA
13681	2	187925065	187925065	T	A	T	W	intronic	CALCRL	NA	NA
13681	2	201142770	201142770	G	A	G	R	exonic	SGOL2	missense	NM_001160046:p.E205K
13681	2	230453013	230453013	T	A	T	W	exonic	TRIP12	silent	NM_004238:p.P9P
13681	3	4998105	4998105	T	C	T	Y	exonic	BHLHE40	missense	NM_003670:p.V96A
13681	3	5232630	5232630	A	-	G	*/-A	UTR3	EDEM1	NA	NA
13681	3	5232632	5232632	C	T	C	Y	UTR3	EDEM1	NA	NA
13681	3	22398928	22398928	T	A	T	W	intergenic	NA	NA	NA
13681	3	34889818	34889818	C	G	C	S	intergenic	NA	NA	NA
13681	3	40499188	40499188	G	T	G	K	exonic	ZNF619	missense	NM_001145093:p.G95V
13681	3	77230036	77230036	C	T	C	Y	exonic	ROBO2	nonsense	NM_001128929:p.Q62X
13681	3	101758378	101758378	G	T	G	K	exonic	TMEM45A	missense	NM_018004:p.G92V
13681	3	123008843	123008843	A	T	A	W	intronic	IQCB1	NA	NA
13681	3	184406312	184406312	G	A	G	R	intronic	MCF2L2	NA	NA
13681	3	197278751	197278751	T	A	T	W	intronic	TFRC	NA	NA
13681	3	197699849	197699849	A	C	A	M	intronic	RNF168	NA	NA
13681	4	37528338	37528338	C	A	C	M	exonic	PGM2	silent	NM_018290:p.A517A
13681	4	42169195	42169195	G	A	G	R	ncRNA	MIR548M	NA	NA
13681	4	57491293	57491293	G	T	G	K	exonic	REST	silent	NM_005612:p.V504V
13681	4	113398347	113398347	G	A	G	R	intronic	AP1AR	NA	NA
13681	4	113398348	113398348	T	A	T	W	intronic	AP1AR	NA	NA
13681	4	113655239	113655239	C	G	C	S	UTR3	NEUROG2	NA	NA
13681	4	134303714	134303714	G	T	G	K	exonic	PCDH10	missense	NM_032961:p.G977V
13681	5	466429	466429	T	A	T	W	intronic	AHRR	NA	NA
13681	5	23545478	23545478	C	A	C	M	intronic	PRDM9	NA	NA
13681	5	29918059	29918059	G	T	G	K	intergenic	NA	NA	NA

13681	5	62108508	62108508	A	C	A	M	intergenic	NA	NA	NA
13681	5	70841029	70841029	C	G	C	S	intronic	BDP1	NA	NA
13681	5	71792845	71792845	G	T	G	K	exonic	ZNF366	silent	NM_152625:p.R79R
13681	5	75410645	75410645	T	A	T	W	intergenic	NA	NA	NA
13681	5	82308512	82308512	T	A	T	W	intergenic	NA	NA	NA
13681	5	97940704	97940704	G	T	G	K	intergenic	NA	NA	NA
13681	5	158182846	158182846	T	C	T	Y	exonic	EBF1	missense	NM_024007:p.M232V
13681	5	168953178	168953178	G	C	G	S	intronic	CCDC99	NA	NA
13681	6	3683268	3683268	C	G	C	S	intronic	C6orf145	NA	NA
13681	6	25797358	25797358	T	A	T	W	intronic	SCGN	NA	NA
13681	6	29751688	29751688	C	A	C	M	splicing	ZFP57	NA	NA
13681	6	32665427	32665427	G	A	G	R	exonic	HLA-DRB1	missense	NM_002124:p.S24F
13681	6	32717348	32717348	G	T	G	T	intronic	HLA-DQA1	NA	NA
13681	6	34167948	34167948	C	A	C	M	intronic	GRM4	NA	NA
13681	7	14197993	14197993	G	T	G	K	intronic	DGKB	NA	NA
13681	7	57088412	57088412	G	T	G	K	intergenic	NA	NA	NA
13681	7	91936036	91936036	G	T	G	K	intergenic	NA	NA	NA
13681	7	93876730	93876730	A	T	A	W	intronic	COL1A2	NA	NA
13681	7	93881123	93881123	T	C	T	Y	intronic	COL1A2	NA	NA
13681	7	129306680	129306680	G	A	G	R	exonic	UBE2H	missense	NM_003344:p.I57L
13681	7	142150825	142150825	C	A	C	M	intergenic	NA	NA	NA
13681	8	30005806	30005806	A	T	A	W	intergenic	NA	NA	NA
13681	8	63939447	63939447	G	A	G	R	intronic	NKAIN3	NA	NA
13681	8	139797045	139797045	T	C	T	Y	intronic	COL22A1	NA	NA
13681	8	143993521	143993521	C	T	C	Y	exonic	CYP11B2	missense	NM_000498:p.A180T
13681	9	6244550	6244550	G	A	G	R	exonic	IL33	silent	NM_001199640:p.V161V
13681	9	76560014	76560014	C	A	C	M	intronic	TRPM6	NA	NA
13681	9	79175162	79175162	G	T	G	K	exonic	VPS13A	missense	NM_015186:p.G2919C
13681	9	89936175	89936175	C	-	T	*/-C	exonic	FAM75C2	FS_del	NM_001166137:p.E533fs
13681	9	94689870	94689870	A	C	A	M	intergenic	NA	NA	NA
13681	9	129525322	129525322	C	G	C	S	exonic	TTC16	missense	NM_144965:p.A254G
13681	10	5187856	5187856	C	T	C	Y	ncRNA	AKR1CL1	NA	NA
13681	10	35859182	35859182	G	C	G	S	intronic	CCNY	NA	NA
13681	10	36026495	36026495	G	T	G	K	intergenic	NA	NA	NA
13681	10	37458931	37458931	C	A	C	M	exonic	ANKRD30A	missense	NM_052997:p.P53H
13681	10	93758872	93758872	G	T	G	K	exonic	BTAf1	nonsense	NM_003972:p.E1344X
13681	10	118297803	118297803	C	G	C	S	intronic	PNLIP	NA	NA
13681	10	125511458	125511458	C	T	C	Y	exonic	CPXM2	missense	NM_198148:p.R566Q
13681	10	135304949	135304949	T	G	T	K	intergenic	NA	NA	NA
13681	10	135305774	135305774	G	T	G	K	intergenic	NA	NA	NA
13681	11	5819164	5819164	G	T	G	K	exonic	OR52E6	nonsense	NM_001005167:p.Y180X
13681	11	5972911	5972911	C	T	C	Y	intergenic	NA	NA	NA
13681	11	14949267	14949267	G	T	G	K	exonic	CALCA	silent	NM_001033952:p.V16V
13681	11	17030390	17030390	C	G	C	S	intergenic	NA	NA	NA
13681	11	18692711	18692711	A	C	A	M	exonic	IGSF22	missense	NM_173588:p.V523G
13681	11	21207543	21207543	C	A	C	M	exonic	NEEL1	missense	NM_201551:p.P506T
13681	11	39139781	39139781	G	T	G	K	intergenic	NA	NA	NA
13681	11	55162725	55162725	G	A	G	R	exonic	OR4P4	missense	NM_001004124:p.G106R
13681	11	55412351	55412351	T	A	T	W	intronic	SPRYD5	NA	NA
13681	11	58811781	58811781	C	T	C	Y	intergenic	NA	NA	NA
13681	11	67881869	67881869	G	T	G	K	exonic	LRP5	missense	NM_002335:p.A222S
13681	11	85074415	85074415	A	G	A	R	exonic	CCDC89	missense	NM_152723:p.M136T
13681	11	89578264	89578264	A	G	A	R	intronic	CHORDC1	NA	NA
13681	11	93126675	93126675	T	G	T	K	intronic	C11orf54	NA	NA
13681	11	101704819	101704819	A	T	A	W	intronic	BIRC3	NA	NA
13681	11	118530874	118530874	C	T	C	Y	intronic	ABCG4	NA	NA
13681	11	129496702	129496702	C	T	C	Y	ncRNA	APLP2	NA	NA
13681	12	4614926	4614926	C	G	C	S	intronic	AKAP3	NA	NA
13681	12	6749863	6749863	G	T	G	K	exonic	PTMS	silent	NM_002824:p.S101S
13681	12	8091887	8091887	G	C	G	S	exonic	FOXJ2	missense	NM_018416:p.Q320H
13681	12	20889389	20889389	C	T	C	Y	intronic	SLCO1B3	NA	NA
13681	12	25289552	25289552	C	A	C	M	exonic	KRAS	missense	NM_033360:p.G12C
13681	12	45915107	45915107	G	T	G	K	UTR5	FAM113B	NA	NA
13681	12	51452881	51452881	C	A	C	M	exonic	KRT76	missense	NM_015848:p.D309Y
13681	12	77106175	77106175	C	T	C	Y	exonic	NAV3	missense	NM_014903:p.A1914V
13681	12	95661350	95661350	T	A	T	W	intergenic	NA	NA	NA
13681	12	108159425	108159425	A	T	A	W	exonic	ACACB	missense	NM_001093:p.N1507Y
13681	12	109833383	109833383	G	T	G	K	intronic	MYL2	NA	NA
13681	12	109835413	109835413	C	T	C	Y	intronic	MYL2	NA	NA
13681	12	122253724	122253724	A	T	A	W	intronic	MPHOSPH9	NA	NA
13681	13	33298027	33298027	G	T	G	K	intronic	RFC3	NA	NA
13681	13	99751718	99751718	G	T	G	K	exonic	PCCA	nonsense	NM_000282:p.E357X
13681	14	19895162	19895162	A	T	A	W	intronic	PARP2	NA	NA
13681	14	34620217	34620217	A	T	A	W	UTR3	FAM177A1	NA	NA
13681	14	43080079	43080079	C	G	C	S	intergenic	NA	NA	NA
13681	14	50448341	50448341	T	C	T	Y	splicing	PYGL	NA	NA
13681	15	18750459	18750459	T	A	T	W	intergenic	NA	NA	NA
13681	15	21483383	21483383	G	T	G	K	exonic	NDN	missense	NM_002487:p.S25R
13681	15	25814880	25814880	C	A	C	M	intronic	OCA2	NA	NA

13681	15	49617750	49617750	G	A	G	R	exonic	DMXL2	missense	NM_001174117:p.H433Y
13681	15	61141631	61141631	C	G	C	S	intronic	TPM1	NA	NA
13681	15	70741812	70741812	G	A	G	R	exonic	GOLGA6B	missense	NM_018652:p.R338K
13681	15	72352174	72352174	G	T	G	K	exonic	CCDC33	missense	NM_025055:p.Q216H
13681	15	81717636	81717636	G	T	G	K	exonic	BNC1	silent	NM_001717:p.P849P
13681	15	86273408	86273408	C	G	C	S	intronic	NTRK3	NA	NA
13681	16	79611184	79611184	T	C	T	Y	intronic	CENPN	NA	NA
13681	17	10307597	10307597	C	A	C	M	exonic	MYH4	missense	NM_017533:p.R246L
13681	17	10340160	10340160	G	T	G	K	exonic	MYH1	missense	NM_005963:p.S1667R
13681	17	11835248	11835248	G	C	G	S	intronic	ZNF18	NA	NA
13681	17	15584107	15584107	A	C	A	M	intronic	TBC1D26	NA	NA
13681	17	15614536	15614536	C	G	C	S	intergenic	NA	NA	NA
13681	17	18906190	18906190	A	G	A	R	intergenic	NA	NA	NA
13681	17	21259334	21259334	C	T	C	Y	exonic	KCNJ12	silent	NM_001194958:p.N29N
13681	17	21259353	21259353	G	T	G	K	exonic	KCNJ12	missense	NM_001194958:p.V36L
13681	17	32892886	32892886	G	C	G	S	intronic	TADA2A	NA	NA
13681	17	36559326	36559326	T	A	T	W	exonic	KRTAP4-5	missense	NM_033188:p.S74C
13681	17	42922593	42922593	T	C	T	Y	ncRNA	MRPL45P2	NA	NA
13681	17	42922594	42922594	C	A	C	M	ncRNA	MRPL45P2	NA	NA
13681	17	55867547	55867547	C	T	C	Y	intergenic	NA	NA	NA
13681	17	61070488	61070488	G	T	G	K	intronic	CCDC46	NA	NA
13681	17	64604500	64604500	T	A	T	W	exonic	ABCA6	missense	NM_080284:p.Y1053F
13681	18	100890	100890	G	T	G	K	ncRNA	ROCK1P1	NA	NA
13681	18	11600624	11600624	G	C	G	S	intergenic	NA	NA	NA
13681	18	11600630	11600630	G	A	G	R	intergenic	NA	NA	NA
13681	18	16771423	16771423	T	G	T	K	intergenic	NA	NA	NA
13681	18	16773165	16773165	C	A	C	M	intergenic	NA	NA	NA
13681	18	27796787	27796787	C	A	C	M	intergenic	NA	NA	NA
13681	18	71259694	71259694	T	A	T	W	intronic	C18orf62	NA	NA
13681	19	10463584	10463584	C	A	C	M	exonic	KEAP1	missense	NM_012289:p.G332C
13681	19	10463585	10463585	C	A	C	M	exonic	KEAP1	silent	NM_012289:p.A331A
13681	19	15995720	15995720	G	A	G	R	ncRNA	LOC126536	NA	NA
13681	19	19288233	19288233	G	A	G	R	exonic	SUGP1	silent	NM_172231:p.G68G
13681	19	21947991	21947991	T	C	T	Y	exonic	ZNF208	missense	NM_007153:p.Y562C
13681	19	41419571	41419571	G	T	G	K	exonic	ZNF146	missense	NM_001099638:p.C130F
13681	19	42001238	42001238	G	T	G	K	exonic	ZNF790	silent	NM_206894:p.S616S
13681	19	46222071	46222071	A	T	A	W	intergenic	NA	NA	NA
13681	19	54785373	54785373	G	T	G	K	intronic	PRRG2	NA	NA
13681	19	56406810	56406810	C	A	C	M	intergenic	NA	NA	NA
13681	19	60055510	60055510	T	A	T	W	exonic	KIR3DL2	missense	NM_006737:p.W106R
13681	19	60363878	60363878	G	T	G	K	exonic	C19orf51	silent	NM_178837:p.T377T
13681	19	62357638	62357638	G	C	G	S	exonic	DUXA	missense	NM_001012729:p.T190S
13681	20	2553031	2553031	C	A	C	M	exonic	TMC2	silent	NM_080751:p.I765I
13681	20	5845507	5845507	C	A	C	M	exonic	CHGB	silent	NM_001819:p.A44A
13681	20	40060263	40060263	G	A	G	R	intergenic	NA	NA	NA
13681	20	52219571	52219571	A	G	A	R	exonic	CYP24A1	silent	NM_001128915:p.L203L
13681	21	22730583	22730583	T	C	T	Y	intergenic	NA	NA	NA
13681	21	46641788	46641788	G	T	G	K	exonic	PCNT	missense	NM_006031:p.Q1466H
13681	22	22890510	22890510	A	T	A	W	exonic	CABIN1	missense	NM_001201429:p.Q1580L
13681	22	30632482	30632482	G	T	G	K	exonic	DEPDC5	stoploss SN	NM_014662:p.X1573L
13681	22	41518393	41518393	C	A	C	M	intergenic	NA	NA	NA
13681	X	5821101	5821101	C	G	C	S	exonic	NLGN4X	missense	NM_020742:p.Q736H
13681	X	26067991	26067991	A	T	A	W	exonic	MAGEB18	missense	NM_173699:p.H323L
13681	X	47314316	47314316	C	T	C	Y	exonic	ARAF	silent	NM_001654:p.Y500Y
13681	X	47315314	47315314	T	G	T	K	exonic	ARAF	missense	NM_001654:p.C549G
13681	X	48001809	48001809	G	C	G	S	intronic	SSX1	NA	NA
13681	X	54794338	54794338	G	C	G	S	exonic	ITIH5L	missense	NM_198510:p.P1185A
13681	X	54801382	54801382	C	T	C	Y	exonic	ITIH5L	missense	NM_198510:p.S617N
13681	X	63181462	63181462	C	A	C	M	intergenic	NA	NA	NA
13681	X	65169233	65169233	G	T	G	K	exonic	VSIG4	missense	NM_001184830:p.Q166K
13681	X	71812673	71812673	A	-	C	*/-A	exonic	PHKA1	nonsense	NM_001172436:p.L197X
13681	X	71812675	71812675	C	T	C	Y	exonic	PHKA1	silent	NM_001172436:p.E196E
13681	X	73878777	73878777	C	A	C	M	exonic	KIAA2022	missense	NM_001008537:p.K780N
13681	X	74921539	74921539	C	A	C	M	exonic	MAGEE2	nonsense	NM_138703:p.E25X
13681	X	76731920	76731920	G	T	G	K	intronic	ATRX	NA	NA
13681	X	79714464	79714464	C	G	C	S	intergenic	NA	NA	NA
13681	X	84472575	84472575	G	T	G	K	intronic	POF1B	NA	NA
13681	X	97049386	97049386	G	T	G	K	intergenic	NA	NA	NA
13681	X	99028524	99028524	C	A	C	M	ncRNA	LOC442459	NA	NA
13681	X	100286887	100286887	C	A	C	M	intronic	CENPI	NA	NA
13681	X	100982720	100982720	C	A	C	M	exonic	NXF5	missense	NM_032946:p.R135L
13681	X	108671313	108671313	C	A	C	M	intronic	NXT2	NA	NA
13681	X	117698648	117698648	T	C	T	Y	exonic	DOCK11	missense	NM_144658:p.I1879T
13681	X	117844518	117844518	G	T	G	K	UTR3	ZCCHC12	NA	NA
13681	X	120165464	120165464	G	C	G	S	intergenic	NA	NA	NA
13681	X	123857689	123857689	C	A	C	M	exonic	ODZ1	missense	NM_001163279:p.Q100H
13681	X	125126711	125126711	C	A	C	M	exonic	DCAF12L2	missense	NM_001013628:p.S293I
13681	X	126585173	126585173	C	A	C	M	intergenic	NA	NA	NA
13681	X	128546067	128546067	T	A	T	W	intronic	OCRL	NA	NA

13681	X	135281118	135281118	C	A	C	M	intronic	GPR112	NA	NA
13681	X	142545963	142545963	-	T	G	*/+T	exonic	SLITRK4	FS_ins	NM_001184750:p.L210fs
13681	X	142588110	142588110	T	G	T	K	intergenic	NA	NA	NA
13681	X	147087436	147087436	G	T	G	K	intergenic	NA	NA	NA
13681	X	149390076	149390076	G	T	G	K	exonic	MAMLD1	missense	NM_005491:p.G525W
13681	X	149558139	149558139	G	T	G	K	exonic	MTM1	silent	NM_000252:p.V170V
13681	X	149663568	149663568	-	T	G	*/+T	exonic	MTMR1	FS_ins	NM_003828:p.W509fs
13681	X	149663569	149663569	C	A	C	M	exonic	MTMR1	missense	NM_003828:p.Q510K
13681	X	151034077	151034077	G	T	G	K	UTR3	MAGEA5	NA	NA
13681	X	152590703	152590703	C	A	C	M	intronic	PNCK	NA	NA
13681	X	152610210	152610210	C	A	C	M	intronic	SLC6A8	NA	NA
13681	X	153534785	153534785	C	G	C	S	exonic	CTAG2	missense	NM_020994:p.G67R
13681	X	153597761	153597761	C	A	C	M	exonic	GAB3	missense	NM_080612:p.R37L
13681	X	153662948	153662948	G	T	G	K	intronic	MPP1	NA	NA
13681	Y	57411158	57411158	T	A	T	W	intergenic	NA	NA	NA
15145	1	8606966	8606966	T	A	T	W	exonic	RERE	missense	NM_001042681:p.D129V
15145	1	33963731	33963731	A	G	A	R	intronic	CSMD2	NA	NA
15145	1	39157299	39157299	G	A	G	R	exonic	RHBDL2	missense	NM_017821:p.S58F
15145	1	57253525	57253525	G	A	G	R	exonic	DAB1	missense	NM_021080:p.P355S
15145	1	66878165	66878165	G	T	G	K	intronic	SGIP1	NA	NA
15145	1	89251422	89251422	A	C	A	M	intronic	GBP3	NA	NA
15145	1	141480318	141480318	T	A	T	W	intergenic	NA	NA	NA
15145	1	150861975	150861975	C	A	C	M	exonic	LCE3A	missense	NM_178431:p.G77W
15145	1	152299638	152299638	A	T	A	W	splicing	NUP210L	NA	NA
15145	1	170019946	170019946	G	T	G	K	exonic	METTL13	missense	NM_014955:p.Q113H
15145	1	194718157	194718157	A	C	A	M	intronic	KCNT2	NA	NA
15145	1	210260162	210260162	T	C	T	Y	exonic	INTS7	missense	NM_015434:p.N99S
15145	1	245902505	245902505	C	A	C	M	exonic	OR13G1	missense	NM_001005487:p.W154C
15145	2	3629888	3629888	C	A	C	M	exonic	COLEC11	missense	NM_024027:p.A28D
15145	2	44282483	44282483	G	T	G	K	exonic	PPM1B	missense	NM_001033557:p.G214V
15145	2	73450909	73450909	G	A	G	R	intergenic	NA	NA	NA
15145	2	90968594	90968594	A	C	A	M	intergenic	NA	NA	NA
15145	2	90977396	90977396	G	T	G	K	intergenic	NA	NA	NA
15145	2	102507845	102507845	T	A	T	W	intronic	SLC9A4	NA	NA
15145	2	132747019	132747019	G	T	G	K	intergenic	NA	NA	NA
15145	2	139038727	139038727	T	C	T	Y	intronic	SPOPL	NA	NA
15145	2	140771876	140771876	G	T	G	K	exonic	LRP1B	missense	NM_018557:p.P4313Q
15145	2	185511334	185511334	C	A	C	M	exonic	ZNF804A	missense	NM_194250:p.T989N
15145	2	201986042	201986042	A	G	A	R	intronic	TRAK2	NA	NA
15145	2	227585149	227585149	C	A	C	M	exonic	COL4A4	missense	NM_000092:p.G1442V
15145	2	234523434	234523434	C	A	C	M	exonic	TRPM8	missense	NM_024080:p.L349M
15145	3	39144894	39144894	C	T	C	Y	exonic	TTC21A	missense	NM_145755:p.H538Y
15145	3	71828354	71828354	C	A	C	M	exonic	EIF4E3	nonsense	NM_001134651:p.E118X
15145	3	88288137	88288137	G	T	G	K	exonic	C3orf38	missense	NM_173824:p.D218Y
15145	3	89563128	89563128	G	T	G	K	exonic	EPHA3	missense	NM_005233:p.V759L
15145	3	90353827	90353827	G	A	G	R	intergenic	NA	NA	NA
15145	3	90353879	90353879	G	T	G	K	intergenic	NA	NA	NA
15145	3	90353929	90353929	G	A	G	R	intergenic	NA	NA	NA
15145	3	90353956	90353956	G	C	G	S	intergenic	NA	NA	NA
15145	3	102444412	102444412	C	A	C	M	exonic	IMPG2	silent	NM_016247:p.T944T
15145	3	113187806	113187806	A	T	A	W	exonic	ABHD10	missense	NM_018394:p.D111V
15145	3	122822990	122822990	G	T	G	K	exonic	FBXO40	silent	NM_016298:p.P8P
15145	3	142925972	142925972	G	A	G	R	intergenic	NA	NA	NA
15145	3	185955195	185955195	G	A	G	R	intergenic	NA	NA	NA
15145	3	192032170	192032170	C	A	C	M	intergenic	NA	NA	NA
15145	3	198893887	198893887	C	G	C	S	intronic	KIAA0226	NA	NA
15145	4	896604	896604	A	T	A	W	intronic	GAK	NA	NA
15145	4	2913833	2913833	C	T	C	Y	exonic	NOP14	silent	NM_003703:p.S645S
15145	4	20178224	20178224	C	-	G	*/-C	intronic	SLIT2	NA	NA
15145	4	126457610	126457610	G	T	G	K	exonic	FAT4	silent	NM_024582:p.A198A
15145	4	171762704	171762704	G	T	G	K	ncRNA	HSP90AA6P	NA	NA
15145	5	21878011	21878011	A	C	A	M	intronic	CDH12	NA	NA
15145	5	42836979	42836979	T	C	T	Y	exonic	SEPP1	missense	NM_001085486:p.H249R
15145	5	43702580	43702580	G	T	G	K	intronic	NNT	NA	NA
15145	5	50719122	50719122	G	C	G	S	exonic	ISL1	missense	NM_002202:p.S87T
15145	5	162850001	162850001	G	T	G	K	exonic	HMMR	missense	NM_001142557:p.A577S
15145	5	178940654	178940654	A	G	A	R	intronic	RUFY1	NA	NA
15145	6	12269852	12269852	A	T	A	W	exonic	HIVEP1	missense	NM_002114:p.T2228S
15145	6	26164195	26164195	C	T	C	Y	exonic	HIST1H1C	silent	NM_005319:p.P147P
15145	6	28162073	28162073	G	T	G	K	intronic	ZNF165	NA	NA
15145	6	33013183	33013183	G	T	G	K	exonic	HLA-DMB	silent	NM_002118:p.T122T
15145	6	35890518	35890518	C	A	C	M	exonic	LHFPL5	missense	NM_182548:p.D210E
15145	6	73822258	73822258	A	C	A	M	intronic	KCNQ5	NA	NA
15145	6	79757424	79757424	G	A	G	R	intronic	PHIP	NA	NA
15145	6	112789722	112789722	A	T	A	W	intergenic	NA	NA	NA
15145	6	151334791	151334791	G	C	G	S	exonic	MTHFD1L	missense	NM_015440:p.V677L
15145	7	31344768	31344768	G	C	G	S	exonic	NEUROD6	missense	NM_022728:p.P214A
15145	7	77627497	77627497	G	A	G	R	exonic	MAGI2	missense	NM_012301:p.P876S
15145	7	81193069	81193069	G	T	G	K	intronic	HGF	NA	NA

15145	7	144912067	144912067	G	A	G	R	intergenic	NA	NA	NA
15145	8	39726109	39726109	C	T	C	Y	exonic	ADAM2	silent	NM_001464:p.K631K
15145	8	43417280	43417280	G	T	G	K	intergenic	NA	NA	NA
15145	8	113726543	113726543	G	T	G	K	exonic	CSMD3	missense	NM_198123:p.T1094K
15145	9	906890	906890	C	T	C	Y	exonic	DMRT1	missense	NM_021951:p.P317L
15145	9	67946792	67946792	A	G	A	R	intergenic	NA	NA	NA
15145	9	74035944	74035944	G	T	G	K	intronic	GDA	NA	NA
15145	9	79983655	79983655	C	G	C	S	intergenic	NA	NA	NA
15145	9	103356132	103356132	A	T	A	W	exonic	RNF20	missense	NM_019592:p.D648V
15145	9	124490450	124490450	G	A	G	R	intergenic	NA	NA	NA
15145	9	129310158	129310158	G	T	G	K	intronic	FAM129B	NA	NA
15145	10	39051289	39051289	C	T	C	Y	intergenic	NA	NA	NA
15145	10	41685745	41685745	C	A	C	M	intergenic	NA	NA	NA
15145	10	127570792	127570792	A	C	A	M	intergenic	NA	NA	NA
15145	10	127573963	127573963	C	G	C	S	intergenic	NA	NA	NA
15145	11	13663624	13663624	A	G	A	R	intronic	FAR1	NA	NA
15145	11	65376964	65376964	A	C	A	M	exonic	SNX32	missense	NM_152760:p.N373H
15145	11	65522598	65522598	G	A	G	R	UTR3	EIF1AD	NA	NA
15145	11	115326319	115326319	G	T	G	K	intergenic	NA	NA	NA
15145	12	6529236	6529236	G	A	G	R	exonic	IFFO1	missense	NM_001039670:p.L340F
15145	12	125560887	125560887	G	A	G	R	intergenic	NA	NA	NA
15145	13	109620952	109620952	G	T	G	K	exonic	COL4A1	missense	NM_001845:p.H1229N
15145	13	109890146	109890146	G	T	G	K	exonic	COL4A2	missense	NM_001846:p.G308C
15145	14	23722756	23722756	G	A	G	R	intronic	IPO4	NA	NA
15145	14	23971512	23971514	GAG	-	-	-	exonic	KHNYN	nonFS_del	NM_015299:p.402_403del
15145	14	94034410	94034410	T	C	T	Y	exonic	SERPINA12	silent	NM_173850:p.S26S
15145	15	20387629	20387629	G	A	G	R	intronic	TUBGCP5	NA	NA
15145	15	76838823	76838823	G	A	G	R	exonic	ADAMT57	missense	NM_014272:p.R1686C
15145	15	82653537	82653537	C	T	C	Y	ncRNA	LOC440300	NA	NA
15145	16	16116129	16116129	G	A	G	R	exonic	ABCC1	missense	NM_004996:p.A1029T
15145	17	11654464	11654464	G	T	G	K	intronic	DNAH9	NA	NA
15145	17	29507412	29507412	C	G	C	S	exonic	ACCN1	missense	NM_001094:p.V85L
15145	17	38108432	38108432	G	C	G	S	exonic	EZH1	missense	NM_001991:p.F724L
15145	17	39444958	39444958	G	A	G	R	exonic	TMEM101	missense	NM_032376:p.P213L
15145	17	45630824	45630824	G	A	G	R	exonic	COL1A1	missense	NM_000088:p.S171L
15145	17	57699092	57699092	G	A	G	R	ncRNA	TBC1D3P2	NA	NA
15145	17	72134579	72134579	C	T	C	Y	intronic	ST6GALNAC1NA	NA	NA
15145	18	7221499	7221499	C	G	C	S	exonic	LRRC30	silent	NM_001105581:p.V121V
15145	18	33399469	33399469	G	A	G	R	exonic	CELF4	missense	NM_020180:p.T45I
15145	19	10461447	10461447	G	A	G	R	exonic	KEAP1	missense	NM_012289:p.R470C
15145	19	12322559	12322559	A	G	A	R	exonic	ZNF442	silent	NM_030824:p.Y280Y
15145	19	19488004	19488004	T	G	T	K	upstream	NDUFA13	NA	NA
15145	19	19651295	19651295	A	G	A	R	exonic	ZNF101	missense	NM_033204:p.K166R
15145	19	19906162	19906162	A	T	A	W	exonic	ZNF93	silent	NM_031218:p.S466S
15145	19	22154796	22154796	A	T	A	W	exonic	ZNF676	silent	NM_001001411:p.T521T
15145	19	35627704	35627704	G	T	G	K	exonic	ZNF536	silent	NM_014717:p.A465A
15145	19	44667946	44667946	G	T	G	K	intronic	TIMM50	NA	NA
15145	19	60301916	60301916	G	C	G	S	intronic	PPP1R12C	NA	NA
15145	19	62531328	62531328	G	T	G	K	exonic	ZNF543	missense	NM_213598:p.C229F
15145	20	2523462	2523462	G	C	G	S	intronic	TMC2	NA	NA
15145	21	9738235	9738235	T	A	T	W	intergenic	NA	NA	NA
15145	21	10145950	10145950	A	T	A	W	intergenic	NA	NA	NA
15145	21	33847474	33847474	C	T	C	Y	exonic	SON	missense	NM_138927:p.A1356V
15145	22	25036808	25036808	G	T	G	K	ncRNA	MIR1302-1	NA	NA
15145	22	27958281	27958281	G	A	G	R	exonic	EMID1	missense	NM_133455:p.G238E
15145	22	32352189	32352189	G	T	G	K	intronic	LARGE	NA	NA
15145	X	49029868	49029868	A	C	A	M	exonic	PPP1R3F	missense	NM_001184745:p.E245A
15145	X	61647816	61647816	A	G	A	R	intergenic	NA	NA	NA
15145	X	61916012	61916012	T	C	T	Y	intergenic	NA	NA	NA
15145	X	62020601	62020601	A	G	A	R	intergenic	NA	NA	NA
15145	X	65325018	65325018	C	A	C	M	exonic	HEPH	missense	NM_138737:p.H294N
15145	X	73242643	73242643	A	G	A	R	ncRNA	MIR374AHG	NA	NA
15145	X	100798906	100798906	T	A	T	W	exonic	ARMCX2	missense	NM_177949:p.S109C
15145	X	109581480	109581480	G	C	G	S	exonic	RGAG1	missense	NM_020769:p.V327L
15145	X	123443411	123443411	G	T	G	K	exonic	ODZ1	silent	NM_001163279:p.V1266V
15145	X	128473701	128473701	G	T	G	K	intronic	SMARCA1	NA	NA
15145	X	129031368	129031368	C	T	C	Y	intronic	ELF4	NA	NA
15145	X	138539479	138539479	G	A	G	R	intronic	MCF2	NA	NA
15145	X	151034050	151034050	C	A	C	M	UTR3	MAGEA5	NA	NA
15145	X	152639620	152639620	A	G	A	R	splicing	BCAP31	missense	NM_001139457:p.W99R
15145	X	152658777	152658777	A	G	A	R	exonic	ABCD1	missense	NM_000033:p.N509S
15145	X	152932908	152932908	C	T	C	Y	exonic	IRAK1	missense	NM_001569:p.E440K
15145	X	154160580	154160580	G	C	G	S	intronic	CLIC2	NA	NA
15145	Y	11702019	11702019	C	T	C	Y	intergenic	NA	NA	NA
15145	Y	11702331	11702331	G	A	G	R	intergenic	NA	NA	NA
15145	Y	11810807	11810807	A	G	A	R	intergenic	NA	NA	NA
15145	Y	11943304	11943304	T	C	T	Y	intergenic	NA	NA	NA
15145	Y	11943310	11943310	A	T	A	W	intergenic	NA	NA	NA
15145	M	15490	15490	A	G	A	R	intergenic	NA	NA	NA

15637	1	142291052	142291052	C	G	C	S	intergenic	NA	NA	NA
15637	2	86158457	86158457	A	G	A	R	intronic	POLR1A	NA	NA
15637	2	91143687	91143687	C	T	C	Y	intergenic	NA	NA	NA
15637	4	48816919	48816919	C	A	C	M	intergenic	NA	NA	NA
15637	4	48816920	48816920	C	A	C	M	intergenic	NA	NA	NA
15637	7	20706310	20706310	A	T	A	W	intronic	ABCB5	NA	NA
15637	9	67906920	67906920	G	A	G	R	intergenic	NA	NA	NA
15637	14	38697432	38697432	T	G	T	K	intronic	TRAPPC6B	NA	NA
15637	20	47995494	47995494	C	G	C	S	intronic	RNF114	NA	NA
15637	X	15172736	15172736	A	G	A	R	intronic	ASB9	NA	NA
15822	1	41381309	41381309	C	T	C	Y	exonic	SCMH1	silent	NM_001172219:p.R80R
15822	1	141481822	141481822	G	A	G	R	intergenic	NA	NA	NA
15822	2	90976553	90976553	G	T	G	K	intergenic	NA	NA	NA
15822	2	172358391	172358391	G	C	G	S	exonic	SLC25A12	missense	NM_003705:p.L480V
15822	3	149942327	149942327	G	A	G	R	exonic	AGTR1	missense	NM_009585:p.R272H
15822	4	48800676	48800676	G	T	G	K	intergenic	NA	NA	NA
15822	5	37121340	37121340	T	C	T	Y	intergenic	NA	NA	NA
15822	5	64860243	64860243	C	A	C	M	intronic	CENPK	NA	NA
15822	5	87538846	87538846	T	A	T	W	intronic	TMEM161B	NA	NA
15822	6	146285240	146285240	G	A	G	R	intronic	SHPRH	NA	NA
15822	7	42802693	42802693	A	C	A	M	intergenic	NA	NA	NA
15822	7	57936761	57936761	T	A	T	W	intergenic	NA	NA	NA
15822	7	141158398	141158398	C	A	C	M	intergenic	NA	NA	NA
15822	9	67915968	67915968	C	T	C	Y	intergenic	NA	NA	NA
15822	9	67916157	67916157	T	C	T	Y	intergenic	NA	NA	NA
15822	9	67917996	67917996	A	G	A	R	ncRNA	LOC642236	NA	NA
15822	9	67921301	67921301	G	C	G	S	ncRNA	LOC642236	NA	NA
15822	10	18479788	18479788	G	T	G	K	intronic	CACNB2	NA	NA
15822	10	71660200	71660200	T	C	T	Y	intronic	PPA1	NA	NA
15822	11	111546346	111546346	T	A	T	W	intronic	TEX12	NA	NA
15822	12	1162662	1162662	A	C	A	M	ncRNA	ERC1	NA	NA
15822	14	19176625	19176625	C	T	C	Y	intergenic	NA	NA	NA
15822	14	70269388	70269388	C	T	C	Y	exonic	MAP3K9	silent	NM_033141:p.K831K
15822	14	88143959	88143959	T	C	T	Y	intronic	ZC3H14	NA	NA
15822	15	39600027	39600027	G	C	G	S	exonic	RPAP1	missense	NM_015540:p.H1217D
15822	17	7520046	7520047	CA	-	T	*/-CA	exonic	TP53	FS_del	NM_001126113:p.122_122del
15822	17	7623316	7623316	A	C	A	M	exonic	DNAH2	missense	NM_020877:p.N1858H
15822	17	45270997	45270997	G	C	G	S	UTR3	TAC4	NA	NA
15822	18	99468	99468	T	G	T	K	ncRNA	ROCK1P1	NA	NA
15822	18	16771423	16771423	T	G	T	K	intergenic	NA	NA	NA
15822	20	28248461	28248461	C	T	C	Y	downstream	FRG1B	NA	NA
15822	20	28261075	28261075	C	G	C	S	intergenic	NA	NA	NA
15822	20	28264249	28264249	A	G	A	R	intergenic	NA	NA	NA
15822	Y	57439167	57439167	C	G	C	S	intergenic	NA	NA	NA
15822	M	8314	8314	G	A	G	R	intergenic	NA	NA	NA
15858	1	16842158	16842158	G	A	G	R	intergenic	NA	NA	NA
15858	1	108110855	108110855	G	A	G	R	intronic	VAV3	NA	NA
15858	1	141482100	141482100	G	A	G	R	intergenic	NA	NA	NA
15858	1	141825721	141825721	T	C	T	Y	intergenic	NA	NA	NA
15858	1	142291040	142291040	G	A	G	R	intergenic	NA	NA	NA
15858	1	144150303	144150303	T	C	T	Y	exonic	TXNIP	silent	NM_006472:p.A48A
15858	1	151044334	151044334	C	A	C	M	exonic	LCE1C	missense	NM_178351:p.R82L
15858	1	156162351	156162351	C	A	C	M	intergenic	NA	NA	NA
15858	1	156162352	156162352	C	T	G	K	intergenic	NA	NA	NA
15858	1	156701917	156701917	G	G	C	S	upstream	OR10K1	NA	NA
15858	1	160234717	160234717	T	G	T	K	exonic	OLFML2B	missense	NM_015441:p.E332D
15858	1	202670334	202670334	C	A	C	M	exonic	PIK3C2B	missense	NM_002646:p.C1181F
15858	1	240343826	240343826	T	A	T	W	exonic	PLD5	silent	NM_001195812:p.T145T
15858	2	42878698	42878698	A	T	A	W	intergenic	NA	NA	NA
15858	2	71724639	71724639	G	T	G	K	exonic	DYSF	missense	NM_001130987:p.A1522S
15858	2	132066160	132066160	G	T	G	K	ncRNA	POTEKP	NA	NA
15858	2	132737380	132737380	A	C	A	M	intergenic	NA	NA	NA
15858	2	132737383	132737383	C	G	C	S	intergenic	NA	NA	NA
15858	2	144242059	144242059	T	A	T	W	exonic	ARHGAP15	missense	NM_018460:p.S426T
15858	3	99370847	99370847	C	A	C	M	exonic	OR5H15	nonsense	NM_001005515:p.S205X
15858	3	114804473	114804473	T	C	T	Y	intronic	SIDT1	NA	NA
15858	3	114996688	114996688	G	T	G	K	exonic	ATP6V1A	missense	NM_001690:p.R391S
15858	3	115552570	115552570	C	G	C	S	exonic	ZBTB20	missense	NM_001164346:p.E276Q
15858	3	126948853	126948853	C	T	C	Y	intergenic	NA	NA	NA
15858	3	141764424	141764424	G	T	G	K	exonic	CLSTN2	missense	NM_022131:p.R765L
15858	3	142488825	142488828	CTCT	-	A	*/-CTCT	intronic	ACPL2	NA	NA
15858	3	152557726	152557726	G	C	G	S	exonic	MED12L	silent	NM_053002:p.L864L
15858	3	156338584	156338584	G	T	G	K	splicing	MME	NA	NA
15858	3	184406537	184406537	T	A	T	W	intronic	MCF2L2	NA	NA
15858	3	187820392	187820392	T	A	T	W	exonic	AHSG	missense	NM_001622:p.V243D
15858	3	195544917	195544917	G	A	G	R	exonic	CPN2	silent	NM_001080513:p.G70G
15858	4	69494133	69494133	C	-	G	*/-C	intronic	TMPRSS11E	NA	NA
15858	4	160148349	160148349	C	A	C	M	intronic	C4orf45	NA	NA
15858	4	160148350	160148350	C	A	C	M	intronic	C4orf45	NA	NA

15858	4	191042541	191042541	C	T	C	Y	intergenic	NA	NA	NA
15858	4	191121502	191121502	T	A	T	W	downstream	FRG1	NA	NA
15858	6	29502694	29502694	C	A	C	M	exonic	OR11A1	missense	NM_013937:p.R235M
15858	6	42575482	42575482	C	A	C	M	intergenic	NA	NA	NA
15858	7	47861096	47861096	C	A	C	M	exonic	PKD1L1	nonsense	NM_138295:p.E1590X
15858	7	64076200	64076200	C	A	C	M	exonic	ZNF117	missense	NM_015852:p.G395V
15858	7	73607760	73607760	G	T	G	K	splicing	GTF2IRD1	nonsense	NM_001199207:p.E707X
15858	7	88261718	88261718	C	A	C	M	exonic	C7orf62	missense	NM_152706:p.D159Y
15858	7	88794748	88794748	T	A	T	W	intronic	ZNF804B	NA	NA
15858	7	91469115	91469115	A	G	A	R	exonic	AKAP9	missense	NM_005751:p.I650V
15858	7	102183223	102183223	T	G	T	K	ncRNA	FAM185A	NA	NA
15858	7	106296511	106296511	G	A	G	R	exonic	PIK3CG	silent	NM_002649:p.L423L
15858	7	106332952	106332952	A	G	A	R	exonic	PIK3CG	missense	NM_002649:p.K1065E
15858	7	137981591	137981591	G	A	G	R	intronic	SVOPL	NA	NA
15858	7	142350480	142350480	C	-	A	*/-C	intronic	KEL	NA	NA
15858	7	158718734	158718734	G	C	G	S	intergenic	NA	NA	NA
15858	8	87629779	87629779	G	A	G	R	splicing	CPNE3	NA	NA
15858	8	145555074	145555074	G	C	G	S	exonic	GPR172A	missense	NM_024531:p.G340R
15858	9	30764739	30764739	C	A	C	M	intergenic	NA	NA	NA
15858	9	32666294	32666294	C	A	C	M	intergenic	NA	NA	NA
15858	9	66210770	66210770	A	C	A	M	intergenic	NA	NA	NA
15858	9	67904282	67904282	A	G	A	R	intergenic	NA	NA	NA
15858	10	17020982	17020982	A	T	A	W	exonic	CUBN	missense	NM_001081:p.Y1907N
15858	10	18868283	18868283	C	A	C	M	exonic	CACNB2	missense	NM_000724:p.A481D
15858	10	22658103	22658103	A	G	A	R	intronic	BMI1	NA	NA
15858	10	31789988	31789988	T	A	T	W	exonic	ZEB1	silent	NM_001128128:p.T8T
15858	10	41937087	41937087	T	C	T	Y	intergenic	NA	NA	NA
15858	11	490634	490634	G	A	G	R	exonic	RNH1	missense	NM_203384:p.T41M
15858	11	55503896	55503896	G	A	G	R	ncRNA	OR7E5P	NA	NA
15858	11	55503897	55503897	G	T	G	K	ncRNA	OR7E5P	NA	NA
15858	12	13111161	13111161	C	T	C	Y	intronic	KIAA1467	NA	NA
15858	12	16445899	16445899	A	G	A	R	intergenic	NA	NA	NA
15858	12	23628839	23628839	T	A	T	W	intronic	SOX5	NA	NA
15858	12	37333973	37333973	T	G	T	K	exonic	CPNE8	missense	NM_153634:p.H558P
15858	12	48635477	48635477	C	A	C	M	exonic	AQP2	missense	NM_000486:p.A212D
15858	12	51197552	51197552	C	T	C	Y	intronic	KRT5	NA	NA
15858	12	52164259	52164259	C	T	C	Y	intronic	MAP3K12	NA	NA
15858	12	74185242	74185242	C	A	C	M	intronic	KRR1	NA	NA
15858	12	86898281	86898281	C	G	C	S	intronic	C12orf50	NA	NA
15858	12	91625520	91625520	G	T	G	K	UTR3	C12orf74	NA	NA
15858	12	105820101	105820101	C	A	C	M	intergenic	NA	NA	NA
15858	12	106553265	106553265	C	G	C	S	exonic	BTBD11	missense	NM_001017523:p.T439R
15858	12	108420208	108420208	C	A	C	M	intronic	UBE3B	NA	NA
15858	12	123523486	123523486	C	T	C	Y	exonic	NCOR2	missense	NM_001077261:p.V186I
15858	13	21003623	21003623	C	A	C	M	intronic	EFHA1	NA	NA
15858	14	22946048	22946048	G	T	G	K	intronic	MYH6	NA	NA
15858	14	22971645	22971645	C	A	C	M	intronic	MYH7	NA	NA
15858	14	75702821	75702821	A	T	A	W	exonic	C14orf118	missense	NM_017972:p.Q242L
15858	14	95002088	95002088	G	T	G	K	exonic	C14orf49	missense	NM_152592:p.P187H
15858	15	38834087	38834087	C	A	C	M	splicing	FAM82A2	missense	NM_018145:p.V63L
15858	15	76846812	76846812	G	T	G	K	exonic	ADAMT57	silent	NM_014272:p.P941P
15858	15	89596467	89596467	C	A	C	M	intronic	SV2B	NA	NA
15858	16	30641416	30641416	G	A	G	R	exonic	SRCAP	silent	NM_006662:p.G1246G
15858	16	33883324	33883324	T	C	T	Y	intergenic	NA	NA	NA
15858	16	46823319	46823319	C	A	C	M	exonic	ABCC11	missense	NM_032583:p.R55
15858	17	20433741	20433741	C	A	C	M	intergenic	NA	NA	NA
15858	17	55114396	55114396	T	G	T	K	intronic	CLTC	NA	NA
15858	17	55114423	55114423	A	T	A	W	exonic	CLTC	missense	NM_004859:p.E1151V
15858	18	16766315	16766315	A	G	A	R	intergenic	NA	NA	NA
15858	18	21932947	21932947	C	A	C	M	intergenic	NA	NA	NA
15858	19	2684122	2684122	T	A	T	W	exonic	SLC39A3	missense	NM_144564:p.Q191L
15858	19	15886607	15886607	T	C	T	Y	exonic	CYP4F11	missense	NM_021187:p.D405G
15858	19	35626600	35626600	C	A	C	M	exonic	ZNF536	missense	NM_014717:p.N97K
15858	19	38209157	38209157	C	T	C	Y	intronic	RHPN2	NA	NA
15858	19	42859019	42859019	C	A	C	M	intronic	ZNF781	NA	NA
15858	19	47954057	47954057	C	T	C	Y	exonic	PSG8	missense	NM_001130167:p.E216K
15858	19	49583533	49583533	C	A	C	M	exonic	ZNF285	silent	NM_152354:p.G238G
15858	20	28267174	28267174	C	T	C	Y	intergenic	NA	NA	NA
15858	20	40180567	40180567	A	-	G	*/-A	intronic	PTPRT	NA	NA
15858	20	40180569	40180569	G	T	G	K	intronic	PTPRT	NA	NA
15858	20	43482179	43482179	C	A	C	M	intronic	PIGT	NA	NA
15858	20	51305578	51305578	C	A	C	M	exonic	TSHZ2	missense	NM_173485:p.T725K
15858	20	51306515	51306515	C	T	C	Y	UTR3	TSHZ2	NA	NA
15858	20	55621595	55621595	C	A	C	M	exonic	ZBP1	missense	NM_001160419:p.D234Y
15858	21	30642563	30642563	G	T	G	K	downstream	KRTAP23-1	NA	NA
15858	22	23353459	23353459	G	A	G	R	exonic	GGT1	missense	NM_001032365:p.D361N
15858	X	135560223	135560223	G	T	G	K	splicing	CD40LG	NA	NA
15858	Y	11909367	11909367	C	T	C	Y	intergenic	NA	NA	NA
15858	Y	57411489	57411489	T	C	T	Y	intergenic	NA	NA	NA



15858	Y	57426642	57426642	C	T	C	Y	intergenic	NA	NA	NA
16246	1	11172359	11172359	T	A	T	W	exonic	ANGPTL7	missense	NM_021146:p.C46S
16246	1	15661827	15661827	C	A	C	M	exonic	CELA2A	silent	NM_033440:p.T80T
16246	1	20121760	20121760	T	C	T	Y	exonic	PLA2G2E	missense	NM_014589:p.Y39C
16246	1	20313338	20313338	A	T	A	W	splicing	PLA2G2D	silent	NM_012400:p.S98S
16246	1	20871287	20871287	A	T	A	W	intronic	KIF17	NA	NA
16246	1	40008527	40008527	T	A	T	W	exonic	OXCT2	missense	NM_022120:p.I330F
16246	1	55294187	55294187	G	C	G	S	intronic	PCSK9	NA	NA
16246	1	62476560	62476560	G	T	G	K	exonic	KANK4	missense	NM_181712:p.Q989K
16246	1	62837002	62837002	C	A	C	M	exonic	ANGPTL3	silent	NM_014495:p.T181T
16246	1	66607021	66607021	C	A	C	M	intronic	PDE4B	NA	NA
16246	1	74811706	74811706	G	A	G	R	exonic	C1orf173	missense	NM_001002912:p.S759F
16246	1	85185304	85185304	T	C	T	Y	splicing	MCOLN2	missense	NM_153259:p.T283A
16246	1	86364471	86364471	G	T	G	K	exonic	COL24A1	missense	NM_152890:p.H46N
16246	1	100231788	100231788	A	G	A	R	exonic	SLC35A3	silent	NM_012243:p.L30L
16246	1	114325516	114325516	G	T	G	K	exonic	OLFML3	missense	NM_020190:p.D275Y
16246	1	141479432	141479432	G	A	G	R	intergenic	NA	NA	NA
16246	1	141859546	141859546	G	A	G	R	intergenic	NA	NA	NA
16246	1	142354824	142354824	A	T	A	W	intergenic	NA	NA	NA
16246	1	143729173	143729173	G	T	G	K	intronic	PDE4DIP	NA	NA
16246	1	143729177	143729177	G	T	G	K	intronic	PDE4DIP	NA	NA
16246	1	145105758	145105758	T	A	T	W	intronic	PRKAB2	NA	NA
16246	1	145847184	145847184	C	A	C	M	exonic	GJA8	missense	NM_005267:p.L160I
16246	1	147607427	147607427	G	T	G	K	intergenic	NA	NA	NA
16246	1	149639405	149639405	G	T	G	K	intronic	PSMB4	NA	NA
16246	1	150325925	150325925	G	C	G	S	exonic	TCHHL1	missense	NM_001008536:p.S286C
16246	1	150457950	150457950	C	A	C	M	exonic	HRNR	missense	NM_001009931:p.G927C
16246	1	150553519	150553519	G	T	G	K	exonic	FLG	missense	NM_002016:p.S156Y
16246	1	150638746	150638746	C	A	C	M	intergenic	NA	NA	NA
16246	1	151123600	151123600	C	G	C	S	exonic	SMCP	missense	NM_030663:p.C26W
16246	1	152380601	152380601	C	A	C	M	exonic	NUP210L	missense	NM_207308:p.G166W
16246	1	152475642	152475642	C	G	C	S	intronic	UBAP2L	NA	NA
16246	1	153185812	153185812	T	G	T	K	exonic	PBXIP1	missense	NM_020524:p.E321A
16246	1	153530982	153530982	C	G	C	S	exonic	PKLR	missense	NM_000298:p.V294L
16246	1	153537847	153537847	A	G	A	R	UTR5	PKLR	NA	NA
16246	1	153849172	153849172	C	T	C	Y	intronic	MSTO1	NA	NA
16246	1	155985059	155985059	G	C	G	S	intronic	FCRL2	NA	NA
16246	1	156566035	156566035	C	A	C	M	exonic	CD1B	missense	NM_001764:p.G212V
16246	1	156873075	156873075	C	A	C	M	exonic	SPTA1	missense	NM_003126:p.A1764S
16246	1	156880913	156880913	G	A	G	R	intronic	SPTA1	NA	NA
16246	1	157002408	157002408	G	A	G	R	exonic	OR6N1	missense	NM_001005185:p.S230L
16246	1	157002409	157002409	A	T	A	W	exonic	OR6N1	missense	NM_001005185:p.S230T
16246	1	157642781	157642781	C	A	C	M	intergenic	NA	NA	NA
16246	1	158155223	158155223	C	A	C	M	exonic	TAGLN2	missense	NM_003564:p.Q197H
16246	1	158433959	158433959	T	A	T	W	intronic	CASQ1	NA	NA
16246	1	158727177	158727177	T	C	T	Y	intronic	SLAMF6	NA	NA
16246	1	159131777	159131777	G	A	G	R	intergenic	NA	NA	NA
16246	1	161012090	161012090	G	T	G	K	exonic	DDR2	missense	NM_001014796:p.K627N
16246	1	161383898	161383898	G	T	G	K	exonic	RG55	missense	NM_001195303:p.T27N
16246	1	164306292	164306292	A	T	A	W	exonic	FAM78B	missense	NM_001017961:p.V199E
16246	1	172197666	172197666	T	A	T	W	exonic	RC3H1	silent	NM_172071:p.R674R
16246	1	177824537	177824537	G	C	G	S	intergenic	NA	NA	NA
16246	1	177926434	177926434	G	T	G	K	intronic	TDRD5	NA	NA
16246	1	178432477	178432477	G	C	G	S	exonic	QSOX1	missense	NM_002826:p.L642F
16246	1	182855270	182855270	C	T	C	Y	intronic	C1orf21	NA	NA
16246	1	189382354	189382354	G	T	G	K	intergenic	NA	NA	NA
16246	1	209099744	209099744	C	G	C	S	intronic	KCNH1	NA	NA
16246	1	210865913	210865913	C	G	C	S	exonic	FAM71A	missense	NM_153606:p.S357R
16246	1	213858926	213858926	G	C	G	S	exonic	KCTD3	missense	NM_016121:p.R546S
16246	1	216022203	216022203	G	T	G	K	exonic	SPATA17	missense	NM_138796:p.R263L
16246	1	220810522	220810522	G	A	G	R	exonic	TAF1A	missense	NM_005681:p.P238L
16246	1	229541969	229541969	G	A	G	R	intronic	C1orf124	NA	NA
16246	1	234974525	234974525	A	T	A	W	intronic	ACTN2	NA	NA
16246	1	238138096	238138096	A	T	A	W	exonic	CHRM3	missense	NM_000740:p.Y241F
16246	1	244088556	244088556	C	A	C	M	exonic	SMYD3	missense	NM_001167740:p.S314I
16246	1	246125629	246125629	G	T	G	K	exonic	OR2W3	missense	NM_001001957:p.V40L
16246	1	246205296	246205296	A	T	A	W	intronic	OR2L13	NA	NA
16246	1	246469379	246469379	C	T	C	Y	exonic	OR2M4	missense	NM_017504:p.H176Y
16246	1	246703210	246703210	C	A	C	M	upstream	OR2T3	NA	NA
16246	1	246703211	246703211	C	A	C	M	upstream	OR2T3	NA	NA
16246	2	24114239	24114239	G	A	G	R	exonic	C2orf44	nonsense	NM_001142319:p.Q544X
16246	2	27510247	27510247	G	T	G	K	intronic	NRBP1	NA	NA
16246	2	32313966	32313966	G	T	G	K	intronic	NLR4	NA	NA
16246	2	33918999	33918999	G	C	G	S	intergenic	NA	NA	NA
16246	2	37121791	37121791	G	T	G	K	exonic	HEATR5B	missense	NM_019024:p.P949T
16246	2	39850549	39850549	C	A	C	M	exonic	THUMP2D	missense	NM_025264:p.R159S
16246	2	73535794	73535794	C	T	C	Y	intronic	ALMS1	NA	NA
16246	2	73927983	73927983	G	A	G	R	intronic	STAMB2	NA	NA
16246	2	74444045	74444045	C	A	C	M	exonic	DCTN1	missense	NM_001135040:p.A1052S

16246	2	74609564	74609564	G	A	G	R	exonic	AUP1	missense	NM_181575:p.L116F
16246	2	79108932	79108932	C	T	C	Y	UTR3	REG3G	NA	NA
16246	2	81277777	81277777	G	C	G	S	intergenic	NA	NA	NA
16246	2	90961664	90961664	G	C	G	S	intergenic	NA	NA	NA
16246	2	90977369	90977369	G	C	G	S	intergenic	NA	NA	NA
16246	2	101277905	101277905	T	C	T	Y	exonic	RNF149	missense	NM_173647:p.M211V
16246	2	106328135	106328135	G	T	G	K	intergenic	NA	NA	NA
16246	2	107975079	107975079	A	T	A	W	exonic	SLC5A7	silent	NM_021815:p.P88P
16246	2	113536563	113536563	G	T	G	K	exonic	IL1F5	silent	NM_173170:p.R102R
16246	2	128620020	128620020	C	T	C	Y	ncRNA	UGGT1	NA	NA
16246	2	140918550	140918550	A	T	A	W	intronic	LRP1B	NA	NA
16246	2	141324134	141324134	C	G	C	S	intronic	LRP1B	NA	NA
16246	2	155419966	155419966	G	T	G	K	exonic	KCNJ3	silent	NM_002239:p.V467V
16246	2	170950990	170950990	G	A	G	R	exonic	MYO3B	missense	NM_138995:p.A446T
16246	2	182107292	182107292	G	A	G	R	exonic	ITGA4	missense	NM_000885:p.E945K
16246	2	200184890	200184890	C	A	C	M	intergenic	NA	NA	NA
16246	2	209753727	209753727	C	A	C	M	intergenic	NA	NA	NA
16246	2	234191412	234191412	C	A	C	M	exonic	UGT1A8	missense	NM_019076:p.S107Y
16246	3	634659	634659	G	A	G	R	intergenic	NA	NA	NA
16246	3	1418203	1418203	A	T	A	W	exonic	CNTN6	missense	NM_014461:p.N931Y
16246	3	12804727	12804727	G	-	C	*/-G	intergenic	NA	NA	NA
16246	3	12831847	12831847	G	T	G	K	exonic	CAND2	missense	NM_001162499:p.R405L
16246	3	21442057	21442057	G	T	G	K	exonic	ZNF385D	silent	NM_024697:p.G261G
16246	3	32047139	32047139	C	A	C	M	intergenic	NA	NA	NA
16246	3	45900507	45900507	G	A	G	R	intergenic	NA	NA	NA
16246	3	66513680	66513680	T	G	T	K	intronic	LRIG1	NA	NA
16246	3	75488961	75488961	C	G	C	S	intergenic	NA	NA	NA
16246	3	106953126	106953126	C	A	C	M	exonic	CBLB	missense	NM_170662:p.R198I
16246	3	122823258	122823258	G	T	G	K	exonic	FBXO40	nonsense	NM_016298:p.E98X
16246	3	124995298	124995298	C	A	C	M	exonic	MYLK	missense	NM_053028:p.M27I
16246	3	125860012	125860012	G	T	G	K	exonic	KALRN	silent	NM_007064:p.P329P
16246	3	125860013	125860013	C	T	C	Y	exonic	KALRN	missense	NM_007064:p.R330C
16246	3	128876009	128876009	G	T	G	K	ncRNA	ABTB1	NA	NA
16246	3	150025717	150025717	G	T	G	K	intergenic	NA	NA	NA
16246	3	157314645	157314645	A	T	A	W	intergenic	NA	NA	NA
16246	3	158010744	158010744	T	A	T	W	ncRNA	PA2G4P4	NA	NA
16246	3	168560351	168560351	C	G	C	S	splicing	ZBBX	NA	NA
16246	3	168667651	168667651	G	A	G	R	exonic	SERPINI2	nonsense	NM_006217:p.Q122X
16246	3	185238462	185238462	C	T	C	Y	intronic	HTR3D	NA	NA
16246	3	187817687	187817687	C	A	C	M	exonic	AHSG	missense	NM_001622:p.R143S
16246	3	187878205	187878205	C	T	C	Y	exonic	HRG	missense	NM_000412:p.P473S
16246	3	188925326	188925326	-	C	A	*/+C	ncRNA	LOC1001316	NA	NA
16246	3	188925329	188925329	G	C	G	S	ncRNA	LOC1001316	NA	NA
16246	3	198885853	198885853	C	A	C	M	UTR3	KIAA0226	NA	NA
16246	4	2044689	2044689	C	A	C	M	intronic	POLN	NA	NA
16246	4	46625135	46625135	G	T	G	K	exonic	GABRA4	missense	NM_000809:p.P510H
16246	4	62654206	62654206	C	A	C	M	intergenic	NA	NA	NA
16246	4	68647130	68647130	T	C	T	Y	intronic	TMPRSS11F	NA	NA
16246	4	70650091	70650091	C	A	C	M	exonic	SULT1B1	silent	NM_014465:p.R104R
16246	4	84745004	84745004	T	G	T	K	UTR3	AGPAT9	NA	NA
16246	4	93323661	93323661	C	A	C	M	intergenic	NA	NA	NA
16246	4	103869283	103869283	C	A	C	M	intronic	MANBA	NA	NA
16246	4	104730364	104730364	C	A	C	M	exonic	TACR3	missense	NM_001059:p.R441L
16246	4	106243910	106243910	G	T	G	K	intergenic	NA	NA	NA
16246	4	119957907	119957907	C	A	C	M	exonic	SEC24D	missense	NM_014822:p.Q119H
16246	4	123570238	123570238	C	A	C	M	exonic	ADAD1	missense	NM_001159295:p.S524Y
16246	4	143455326	143455326	G	T	G	K	exonic	INPP4B	missense	NM_001101669:p.P138T
16246	4	155726563	155726563	C	A	C	M	exonic	FGA	missense	NM_000508:p.D490Y
16246	4	156970464	156970464	C	G	C	S	exonic	ACCN5	missense	NM_017419:p.E504D
16246	4	164407140	164407140	A	T	A	W	intergenic	NA	NA	NA
16246	4	171236186	171236186	C	A	C	M	intronic	AADAT	NA	NA
16246	4	177308239	177308239	G	T	G	K	exonic	WDR17	missense	NM_181265:p.R700I
16246	4	189255510	189255510	G	C	G	S	intronic	TRIML2	NA	NA
16246	4	189508080	189508080	C	A	C	M	intergenic	NA	NA	NA
16246	4	191055191	191055191	A	T	A	W	intergenic	NA	NA	NA
16246	5	5243297	5243297	C	A	C	M	intronic	ADAMTS16	NA	NA
16246	5	8634363	8634363	C	A	C	M	intergenic	NA	NA	NA
16246	5	14535929	14535929	G	T	G	K	intronic	TRIO	NA	NA
16246	5	19270026	19270026	T	A	T	W	intergenic	NA	NA	NA
16246	5	21497625	21497625	G	T	G	K	ncRNA	GUSBP1	NA	NA
16246	5	21787987	21787987	C	A	C	M	exonic	CDH12	missense	NM_004061:p.E667D
16246	5	21800777	21800777	G	T	G	K	intronic	CDH12	NA	NA
16246	5	31352193	31352193	G	T	G	K	splicing	CDH6	missense	NM_004932:p.Q504H
16246	5	33495697	33495697	G	T	G	K	exonic	TARS	silent	NM_152295:p.L408L
16246	5	33719744	33719744	A	T	A	W	exonic	ADAMTS12	missense	NM_030955:p.Y270N
16246	5	33719953	33719953	T	A	T	W	intronic	ADAMTS12	NA	NA
16246	5	35120322	35120322	C	A	C	M	intronic	PRLR	NA	NA
16246	5	38465981	38465981	G	T	G	K	intronic	EGFLAM	NA	NA
16246	5	42503645	42503645	C	A	C	M	intronic	GHR	NA	NA

16246	5	54678789	54678789	C	G	C	S	intronic	SKIV2L2	NA	NA
16246	5	71526425	71526425	A	G	A	R	exonic	MAP1B	missense	NM_005909:p.Y496C
16246	5	76285626	76285626	G	T	G	K	exonic	CRHBP	silent	NM_001882:p.L64L
16246	5	81341507	81341507	G	T	G	K	intronic	ATG10	NA	NA
16246	5	82852097	82852097	C	A	C	M	exonic	VCAN	missense	NM_001164098:p.S739Y
16246	5	82886472	82886472	T	C	T	Y	intronic	VCAN	NA	NA
16246	5	110740487	110740487	A	T	A	W	exonic	CAMK4	missense	NM_001744:p.T112S
16246	5	114888617	114888617	T	A	T	W	exonic	FEM1C	missense	NM_020177:p.S381C
16246	5	117142739	117142739	C	T	C	Y	intergenic	NA	NA	NA
16246	5	130353659	130353659	C	G	C	S	intergenic	NA	NA	NA
16246	5	133899453	133899453	G	T	G	K	exonic	PHF15	nonsense	NM_015288:p.E3X
16246	5	140217336	140217336	G	T	G	K	exonic	PCDHA10	missense	NM_018901:p.V507L
16246	5	140328836	140328836	G	T	G	K	exonic	PCDHAC2	missense	NM_018899:p.R767S
16246	5	140553280	140553280	G	A	G	R	exonic	PCDHB10	missense	NM_018930:p.G324D
16246	5	140735796	140735796	C	A	C	M	exonic	PCDHGA6	silent	NM_018919:p.L654L
16246	5	144589711	144589711	G	T	G	K	intergenic	NA	NA	NA
16246	5	156522864	156522864	C	A	C	M	exonic	FAM71B	missense	NM_130899:p.M330I
16246	5	156849910	156849910	C	A	C	M	exonic	ADAM19	silent	NM_033274:p.L742L
16246	5	159845055	159845055	G	A	G	R	downstream	MIR146A	NA	NA
16246	5	160906136	160906136	G	C	G	S	intronic	GABRB2	NA	NA
16246	5	180271123	180271123	G	T	G	K	exonic	BTNL8	missense	NM_001040462:p.E192D
16246	6	27344789	27344789	G	T	G	K	intergenic	NA	NA	NA
16246	6	29538519	29538519	C	A	C	M	UTR3	OR2H1	NA	NA
16246	6	29664097	29664097	A	G	A	R	exonic	OR2H2	missense	NM_007160:p.I133V
16246	6	30660032	30660032	G	T	G	K	exonic	ABCF1	missense	NM_001090:p.R358L
16246	6	30660033	30660033	G	T	G	K	exonic	ABCF1	silent	NM_001090:p.R358R
16246	6	34116145	34116145	T	A	T	W	intronic	GRM4	NA	NA
16246	6	36149470	36149470	C	G	C	S	exonic	MAPK14	missense	NM_139012:p.H148D
16246	6	36760026	36760026	C	G	C	S	exonic	CDKN1A	missense	NM_000389:p.T57R
16246	6	49327033	49327033	G	T	G	K	intergenic	NA	NA	NA
16246	6	49773613	49773613	G	T	G	K	exonic	CRISP2	missense	NM_001142435:p.T145N
16246	6	50820724	50820724	A	G	A	R	intronic	TFAP2D	NA	NA
16246	6	54142373	54142373	C	A	C	M	intronic	G6orf142	NA	NA
16246	6	54912618	54912618	G	T	G	K	exonic	FAM83B	missense	NM_001010872:p.G297V
16246	6	55331760	55331760	G	T	G	K	exonic	GFRAL	missense	NM_207410:p.D273Y
16246	6	63961083	63961083	C	A	C	M	intergenic	NA	NA	NA
16246	6	80832010	80832010	C	T	C	Y	intergenic	NA	NA	NA
16246	6	89658351	89658351	G	A	G	R	exonic	RNGTT	silent	NM_003800:p.G229G
16246	6	94123406	94123406	C	A	C	M	exonic	EPHA7	silent	NM_004440:p.G358G
16246	6	99729918	99729918	G	T	G	K	intergenic	NA	NA	NA
16246	6	104572230	104572230	C	A	C	M	intergenic	NA	NA	NA
16246	6	112777996	112777996	G	A	G	R	exonic	RFPL4B	silent	NM_001013734:p.R131R
16246	6	130577347	130577347	C	T	C	Y	exonic	SAMD3	missense	NM_152552:p.A33T
16246	6	134040003	134040003	G	-	A	*-/G	intergenic	NA	NA	NA
16246	6	139013520	139013520	C	T	C	Y	intergenic	NA	NA	NA
16246	6	144499457	144499457	C	T	C	Y	intergenic	NA	NA	NA
16246	6	155615786	155615786	C	A	C	M	exonic	TIAM2	silent	NM_001010927:p.R303R
16246	6	155802817	155802817	G	T	G	K	exonic	NOX3	silent	NM_015718:p.I211I
16246	6	161080258	161080258	C	A	C	M	intronic	PLG	NA	NA
16246	6	165631628	165631628	G	-	C	*-/G	intronic	C6orf118	NA	NA
16246	6	167034884	167034884	C	T	C	Y	intronic	RPS6KA2	NA	NA
16246	7	5063451	5063451	G	T	G	K	splicing	RBAK	NA	NA
16246	7	43485806	43485806	C	A	C	M	exonic	HECW1	missense	NM_015052:p.L1058I
16246	7	44123920	44123920	T	C	T	Y	intronic	POLD2	NA	NA
16246	7	44246813	44246813	T	C	T	Y	intronic	CAMK2B	NA	NA
16246	7	47839212	47839212	C	A	C	M	splicing	PKD1L1	NA	NA
16246	7	57192531	57192531	C	G	C	S	exonic	ZNF479	missense	NM_033273:p.R178T
16246	7	63184283	63184283	G	T	G	K	intergenic	NA	NA	NA
16246	7	75280867	75280867	C	A	C	M	intronic	CCL24	NA	NA
16246	7	81177454	81177454	C	G	C	S	exonic	HGF	missense	NM_000601:p.V496L
16246	7	81474930	81474930	C	A	C	M	splicing	CACNA2D1	NA	NA
16246	7	87118223	87118223	C	A	C	M	intronic	ABCB1	NA	NA
16246	7	92663108	92663108	A	G	A	R	exonic	HEPACAM2	missense	NM_198151:p.V403A
16246	7	101766200	101766200	G	A	G	R	intergenic	NA	NA	NA
16246	7	102994500	102994500	G	T	G	K	intronic	RELN	NA	NA
16246	7	104570876	104570876	G	A	G	R	exonic	SRPK2	silent	NM_182692:p.I317I
16246	7	114931276	114931276	A	T	A	W	intergenic	NA	NA	NA
16246	7	116159077	116159077	A	G	A	R	exonic	MET	silent	NM_001127500:p.T440T
16246	7	117022434	117022434	T	A	T	W	intronic	CFTR	NA	NA
16246	7	128274184	128274184	G	T	G	K	exonic	FLNC	missense	NM_001127487:p.R1426L
16246	7	134911770	134911770	A	T	A	W	intronic	NUP205	NA	NA
16246	7	136351445	136351445	C	A	C	M	exonic	CHRM2	silent	NM_001006629:p.I431I
16246	8	2059526	2059526	C	A	C	M	intronic	MYOM2	NA	NA
16246	8	6781625	6781625	A	G	A	R	intronic	DEFA4	NA	NA
16246	8	6968095	6968095	C	A	C	M	intergenic	NA	NA	NA
16246	8	22221497	22221497	G	T	G	K	exonic	PIWIL2	missense	NM_018068:p.R551L
16246	8	41649300	41649300	C	A	C	M	exonic	ANK1	nonsense	NM_000037:p.E1609X
16246	8	41909236	41909236	C	A	C	M	exonic	MYST3	missense	NM_001099412:p.G1887C
16246	8	71674931	71674931	C	A	C	M	intronic	TRAM1	NA	NA

16246	8	73308797	73308797	C	A	C	M	ncRNA	LOC392232	NA	NA
16246	8	87752334	87752334	C	G	C	S	exonic	CNGB3	missense	NM_019098:p.K149N
16246	8	92239665	92239665	C	T	C	Y	intronic	LRRC69	NA	NA
16246	8	138779556	138779556	G	T	G	K	intergenic	NA	NA	NA
16246	8	139279007	139279007	G	C	G	S	exonic	FAM135B	missense	NM_015912:p.R253G
16246	8	139279008	139279008	G	T	G	K	exonic	FAM135B	nonsense	NM_015912:p.Y252X
16246	9	15024502	15024502	A	T	A	W	intergenic	NA	NA	NA
16246	9	17399373	17399373	G	T	G	K	exonic	CNTLN	nonsense	NM_017738:p.G900X
16246	9	17447637	17447637	C	T	C	Y	exonic	CNTLN	missense	NM_017738:p.P1077L
16246	9	34333373	34333373	C	T	C	Y	exonic	NUDT3	nonsense	NM_147173:p.Q127X
16246	9	35389514	35389514	G	T	G	K	intronic	UNC13B	NA	NA
16246	9	35652529	35652529	G	A	G	R	exonic	C9orf100	missense	NM_032818:p.P295S
16246	9	67906893	67906893	C	T	C	Y	intergenic	NA	NA	NA
16246	9	67907138	67907138	G	A	G	R	intergenic	NA	NA	NA
16246	9	67916061	67916061	G	A	G	R	intergenic	NA	NA	NA
16246	9	67916151	67916151	C	A	C	M	intergenic	NA	NA	NA
16246	9	68322180	68322180	C	G	C	S	intergenic	NA	NA	NA
16246	9	70414481	70414481	C	A	C	M	intergenic	NA	NA	NA
16246	9	70818178	70818178	G	C	G	S	exonic	PRKACG	missense	NM_002732:p.N217K
16246	9	105925235	105925235	G	A	G	R	exonic	SMC2	missense	NM_001042550:p.E720K
16246	9	111745274	111745274	G	T	G	K	exonic	PALM2	missense	NM_001037293:p.K296N
16246	9	120970102	120970102	A	T	A	W	exonic	DBC1	missense	NM_014618:p.L456Q
16246	9	124185702	124185702	G	T	G	K	exonic	PTG51	missense	NM_080591:p.V286L
16246	9	130640260	130640260	T	A	T	W	intronic	CCBL1	NA	NA
16246	9	137785615	137785615	C	T	C	Y	exonic	KCNT1	missense	NM_020822:p.P149L
16246	9	138827740	138827740	G	T	G	K	intronic	C9orf86	NA	NA
16246	10	5216964	5216964	G	T	G	K	ncRNA	AKR1CL1	NA	NA
16246	10	21169757	21169757	C	A	C	M	exonic	NEBL	nonsense	NM_006393:p.E419X
16246	10	28269742	28269742	T	A	T	W	splicing	ARMC4	NA	NA
16246	10	28313121	28313121	G	A	G	R	exonic	ARMC4	missense	NM_018076:p.S227L
16246	10	31024888	31024888	C	A	C	M	intergenic	NA	NA	NA
16246	10	37526406	37526406	T	A	T	W	exonic	ANKRD30A	nonsense	NM_052997:p.L847X
16246	10	38147640	38147640	G	A	G	R	intergenic	NA	NA	NA
16246	10	43420723	43420723	C	A	C	M	intergenic	NA	NA	NA
16246	10	48002295	48002295	G	T	G	K	intronic	RBP3	NA	NA
16246	10	49985859	49985859	G	T	G	K	exonic	C10orf72	silent	NM_144984:p.L81L
16246	10	50489118	50489118	C	A	C	M	exonic	SLC18A3	nonsense	NM_003055:p.S109X
16246	10	55251824	55251824	C	A	C	M	exonic	PCDH15	missense	NM_001142766:p.A1887S
16246	10	55368593	55368593	C	A	C	M	exonic	PCDH15	missense	NM_001142766:p.V1121F
16246	10	55808484	55808484	C	T	C	Y	intronic	PCDH15	NA	NA
16246	10	62322690	62322690	C	A	C	M	exonic	RHOBTB1	missense	NM_014836:p.W122C
16246	10	68969392	68969392	G	T	G	K	exonic	CTNNA3	missense	NM_013266:p.P112T
16246	10	82321273	82321273	G	T	G	K	exonic	SH2D4B	missense	NM_001145719:p.A103S
16246	10	86141023	86141023	A	G	A	R	intronic	FAM190B	NA	NA
16246	10	96084464	96084464	A	G	A	R	splicing	NOC3L	missense	NM_022451:p.S731P
16246	10	118218695	118218695	C	G	C	S	exonic	PNLIPRP3	missense	NM_001011709:p.C312W
16246	10	126681613	126681613	G	A	G	R	exonic	CTBP2	silent	NM_022802:p.T628T
16246	11	4781704	4781704	G	T	G	K	exonic	OR52R1	silent	NM_001005177:p.P161P
16246	11	5210961	5210961	G	T	G	K	intronic	HBD	NA	NA
16246	11	5549701	5549701	T	G	T	K	intergenic	NA	NA	NA
16246	11	6870078	6870078	A	C	A	M	exonic	OR2D2	missense	NM_003700:p.I77R
16246	11	10741988	10741988	C	T	C	Y	exonic	CTR9	nonsense	NM_014633:p.R394X
16246	11	11271235	11271235	C	A	C	M	exonic	GALNTL4	missense	NM_198516:p.V532L
16246	11	12182371	12182371	A	G	A	R	splicing	MICAL2	NA	NA
16246	11	20596091	20596091	A	G	A	R	intronic	SLC6A5	NA	NA
16246	11	22354755	22354755	G	T	G	K	exonic	SLC17A6	missense	NM_020346:p.M458I
16246	11	35410952	35410952	A	T	A	W	exonic	PAMR1	missense	NM_001001991:p.L564Q
16246	11	43379548	43379548	G	T	G	K	intronic	TTC17	NA	NA
16246	11	46356600	46356600	G	C	G	S	exonic	DGKZ	missense	NM_001199267:p.A797P
16246	11	48205543	48205543	C	A	C	M	intergenic	NA	NA	NA
16246	11	48442727	48442727	G	T	G	K	intergenic	NA	NA	NA
16246	11	49048927	49048927	C	A	C	M	intergenic	NA	NA	NA
16246	11	51372124	51372124	C	A	C	M	exonic	OR4C46	silent	NM_001004703:p.A89A
16246	11	55175707	55175707	C	A	C	M	exonic	OR4S2	missense	NM_001004059:p.P251H
16246	11	55814264	55814264	A	T	A	W	exonic	OR8H1	missense	NM_001005199:p.L284Q
16246	11	58140749	58140749	A	T	A	W	ncRNA	ZFP91-CNTF	NA	NA
16246	11	61915584	61915584	G	T	G	K	exonic	ASRG1	missense	NM_001083926:p.A209S
16246	11	64278355	64278355	G	A	G	R	exonic	PYGM	silent	NM_005609:p.A346A
16246	11	73366806	73366806	G	C	G	S	intronic	UCP2	NA	NA
16246	11	75740453	75740453	T	A	T	W	exonic	PRKRIR	silent	NM_004705:p.I463I
16246	11	77090162	77090162	T	A	T	W	exonic	RSF1	missense	NM_016578:p.K587M
16246	11	88775269	88775269	G	A	G	R	exonic	NOX4	missense	NM_016931:p.P240L
16246	11	92535576	92535576	C	A	C	M	exonic	SLC36A4	missense	NM_152313:p.M327I
16246	11	114616409	114616409	T	A	T	W	intronic	CADM1	NA	NA
16246	11	116712300	116712300	C	T	C	Y	intronic	CEP164	NA	NA
16246	11	120921193	120921193	G	A	G	R	exonic	SORL1	silent	NM_003105:p.L632L
16246	11	122394079	122394079	G	C	G	S	ncRNA	LOC341056	NA	NA
16246	11	123316334	123316334	G	T	G	K	exonic	OR4D5	missense	NM_001001965:p.M267I
16246	11	123918082	123918082	T	A	T	W	exonic	OR8B12	missense	NM_001005195:p.N227Y

16246	11	129335972	129335972	A	T	A	W	intronic	PRDM10	NA	NA
16246	12	14501435	14501435	G	T	G	K	exonic	ATF7IP	silent	NM_018179:p.L699L
16246	12	14501436	14501436	G	T	G	K	exonic	ATF7IP	nonsense	NM_018179:p.E700X
16246	12	14697252	14697252	A	G	A	R	intronic	GUCY2C	NA	NA
16246	12	18468824	18468824	G	T	G	K	intronic	PIK3C2G	NA	NA
16246	12	21856355	21856355	T	A	T	W	exonic	ABCC9	missense	NM_020298:p.K1333I
16246	12	27720747	27720747	G	T	G	K	exonic	PPF1BP1	silent	NM_003622:p.R510R
16246	12	29532011	29532011	-	A	C	*/+A	exonic	OVCH1	FS_ins	NM_183378:p.W258fs
16246	12	29532012	29532012	C	A	C	M	exonic	OVCH1	missense	NM_183378:p.W258L
16246	12	34210758	34210758	C	A	C	M	intergenic	NA	NA	NA
16246	12	36708789	36708789	G	T	G	K	intergenic	NA	NA	NA
16246	12	45272998	45272998	G	T	G	K	intergenic	NA	NA	NA
16246	12	46821904	46821904	C	G	C	S	intronic	PFKM	NA	NA
16246	12	65074318	65074318	C	A	C	M	exonic	GRIP1	missense	NM_021150:p.G637V
16246	12	65074319	65074319	C	A	C	M	exonic	GRIP1	nonsense	NM_021150:p.G637X
16246	12	68357094	68357094	T	A	T	W	exonic	BEST3	missense	NM_032735:p.T246S
16246	12	74090573	74090573	C	A	C	M	exonic	GLI1PR1L2	silent	NM_152436:p.V109V
16246	12	75265415	75265415	T	C	T	Y	exonic	BBS10	missense	NM_024685:p.K161E
16246	12	93341968	93341968	T	A	T	W	intronic	CCDC41	NA	NA
16246	12	94901763	94901763	C	A	C	M	intronic	HAL	NA	NA
16246	12	108714849	108714849	C	G	C	S	exonic	TRPV4	missense	NM_021625:p.M605I
16246	12	110503830	110503830	T	C	T	Y	intronic	ATXN2	NA	NA
16246	12	116203068	116203068	A	G	A	R	intronic	NOS1	NA	NA
16246	12	119076079	119076079	G	T	G	K	exonic	GCN111	missense	NM_006836:p.A1240D
16246	12	123450949	123450949	C	A	C	M	intronic	NCOR2	NA	NA
16246	13	18169293	18169293	G	T	G	K	intergenic	NA	NA	NA
16246	13	20314974	20314974	T	A	T	W	intronic	XPO4	NA	NA
16246	13	42464076	42464076	G	-	C	*/-G	intronic	EPST11	NA	NA
16246	13	42464078	42464078	G	T	G	K	intronic	EPST11	NA	NA
16246	13	42832012	42832012	C	A	C	M	exonic	ENOX1	missense	NM_017993:p.M188I
16246	13	47839630	47839630	G	T	G	K	splicing	RB1	NA	NA
16246	13	52317664	52317664	G	C	G	S	exonic	PCDH8	missense	NM_032949:p.F815L
16246	13	52880931	52880931	G	T	G	K	intergenic	NA	NA	NA
16246	13	53913438	53913438	T	A	T	W	intergenic	NA	NA	NA
16246	13	57196798	57196798	C	A	C	M	exonic	PCDH17	missense	NM_001040429:p.S950Y
16246	13	63283658	63283658	C	A	C	M	intergenic	NA	NA	NA
16246	13	67304868	67304868	C	G	C	S	intergenic	NA	NA	NA
16246	13	69366940	69366940	G	C	G	S	intronic	KLHL1	NA	NA
16246	13	76458189	76458189	C	A	C	M	intergenic	NA	NA	NA
16246	13	76678855	76678855	C	A	C	M	exonic	MYCBP2	nonsense	NM_015057:p.E1175X
16246	13	82295373	82295373	G	T	G	K	intergenic	NA	NA	NA
16246	13	92845738	92845738	A	T	A	W	intronic	GPC6	NA	NA
16246	13	95083590	95083590	A	T	A	W	intronic	DZIP1	NA	NA
16246	13	111770173	111770173	G	C	G	S	exonic	SOX1	missense	NM_005986:p.R67P
16246	13	112931855	112931855	G	T	G	K	intronic	CUL4A	NA	NA
16246	13	113336326	113336326	G	T	G	K	exonic	TFDP1	missense	NM_007111:p.A199S
16246	14	19459043	19459043	G	C	G	S	exonic	OR4K5	missense	NM_001005483:p.M146I
16246	14	19552605	19552605	C	A	C	M	exonic	OR4K14	missense	NM_001004712:p.L196F
16246	14	19827727	19827727	C	A	C	M	exonic	TTC5	missense	NM_138376:p.V408F
16246	14	21172217	21172217	C	G	C	S	exonic	OR10G2	missense	NM_001005466:p.V208L
16246	14	21203244	21203244	G	T	G	K	exonic	OR4E2	missense	NM_001001912:p.M36I
16246	14	22936724	22936724	G	A	G	R	intronic	MYH6	NA	NA
16246	14	24806377	24806377	G	-	T	*/-G	intergenic	NA	NA	NA
16246	14	44427615	44427615	T	A	T	W	intergenic	NA	NA	NA
16246	14	50453309	50453309	G	C	G	S	intronic	PYGL	NA	NA
16246	14	62958477	62958477	C	A	C	M	exonic	PPP2R5E	missense	NM_006246:p.W148L
16246	14	63533554	63533554	T	C	T	Y	exonic	SYNE2	missense	NM_182914:p.L1026T
16246	14	72006488	72006488	G	A	G	R	exonic	RGS6	silent	NM_004296:p.Q160Q
16246	14	81199024	81199024	C	A	C	M	intergenic	NA	NA	NA
16246	14	87470917	87470917	T	C	T	Y	exonic	GALC	missense	NM_001201402:p.N631S
16246	14	88053316	88053316	G	A	G	R	exonic	PTPN21	missense	NM_007039:p.R75C
16246	14	91981326	91981326	G	A	G	R	intronic	SLC24A4	NA	NA
16246	14	93149139	93149139	G	T	G	K	exonic	KIAA1409	missense	NM_020818:p.R1156L
16246	14	100512604	100512604	G	T	G	K	ncRNA	SNORD114-1	NA	NA
16246	14	104810121	104810121	G	A	G	R	exonic	BRF1	missense	NM_001519:p.R141C
16246	15	19884458	19884458	C	A	C	M	exonic	OR4N4	missense	NM_001005241:p.L208I
16246	15	22473165	22473165	C	A	C	M	exonic	C15orf2	missense	NM_018958:p.P353Q
16246	15	23002574	23002574	G	T	G	K	ncRNA	SNORD115-2	NA	NA
16246	15	28912315	28912315	C	A	C	M	intergenic	NA	NA	NA
16246	15	29847440	29847440	T	C	T	Y	intergenic	NA	NA	NA
16246	15	33481131	33481131	T	C	T	Y	intronic	ATPBD4	NA	NA
16246	15	38086496	38086496	G	T	G	K	intronic	EIF2AK4	NA	NA
16246	15	41364336	41364336	C	T	C	Y	exonic	TGM7	silent	NM_052955:p.E324E
16246	15	41608887	41608887	C	T	C	Y	exonic	MAP1A	missense	NM_002373:p.R2642W
16246	15	43200125	43200125	G	A	G	R	exonic	DUOX1	missense	NM_144565:p.R171C
16246	15	47945801	47945801	C	A	C	M	intronic	ATP8B4	NA	NA
16246	15	48337979	48337979	G	T	G	K	exonic	HDC	missense	NM_002112:p.H78N
16246	15	50454813	50454813	C	A	C	M	exonic	MYO5A	missense	NM_001142495:p.A853S
16246	15	60879761	60879761	G	T	G	K	intronic	TLN2	NA	NA

16246	15	62018497	62018497	C	A	C	M	exonic	DAPK2	silent	NM_014326:p.T190T
16246	15	67347584	67347584	A	T	A	W	intronic	GLCE	NA	NA
16246	15	77639548	77639548	G	T	G	K	intergenic	NA	NA	NA
16246	15	82496738	82496738	G	T	G	K	exonic	ADAMTSL3	missense	NM_207517:p.C1655F
16246	15	83289436	83289436	G	T	G	K	UTR3	SLC28A1	NA	NA
16246	15	90470280	90470280	C	A	C	M	intronic	SLCO3A1	NA	NA
16246	15	97300131	97300131	A	G	A	R	intronic	IGF1R	NA	NA
16246	15	98620146	98620146	C	A	C	M	exonic	ADAMTS17	missense	NM_139057:p.Q269H
16246	16	3681005	3681005	C	A	C	M	intronic	TRAP1	NA	NA
16246	16	5050415	5050415	C	A	C	M	exonic	C16orf89	missense	NM_152459:p.G128W
16246	16	15736765	15736765	C	G	C	S	exonic	MYH11	silent	NM_022844:p.L1155L
16246	16	17142599	17142599	C	A	C	M	exonic	XYLT1	missense	NM_022166:p.R500L
16246	16	20956548	20956548	C	T	C	Y	intronic	DNAH3	NA	NA
16246	16	21597826	21597826	G	C	G	S	intronic	OTOA	NA	NA
16246	16	23629201	23629201	C	T	C	Y	intronic	ERN2	NA	NA
16246	16	31280783	31280783	G	T	G	K	intronic	ITGAX	NA	NA
16246	16	32282309	32282309	C	A	C	M	intergenic	NA	NA	NA
16246	16	32798475	32798475	G	T	G	K	ncRNA	SLC6A10P	NA	NA
16246	16	33407884	33407884	C	A	C	M	intergenic	NA	NA	NA
16246	16	33853963	33853963	A	G	A	R	intergenic	NA	NA	NA
16246	16	33856643	33856643	C	T	C	Y	intergenic	NA	NA	NA
16246	16	33857854	33857854	G	C	G	S	intergenic	NA	NA	NA
16246	16	33864714	33864714	C	T	C	Y	intergenic	NA	NA	NA
16246	16	34428547	34428547	C	A	C	M	intergenic	NA	NA	NA
16246	16	34481639	34481639	T	A	T	W	ncRNA	LOC283914	NA	NA
16246	16	46778644	46778644	T	C	T	Y	exonic	ABCC11	missense	NM_032583:p.I968V
16246	16	53921810	53921810	G	T	G	K	UTR3	IRX6	NA	NA
16246	16	63539408	63539408	C	G	C	S	exonic	CDH11	missense	NM_001797:p.D664H
16246	16	69139841	69139841	T	C	T	Y	exonic	SF3B3	missense	NM_012426:p.I466T
16246	16	79768962	79768962	G	A	G	R	exonic	PKD1L2	silent	NM_001076780:p.N796N
16246	16	82681999	82681999	T	A	T	W	exonic	MBTPS1	missense	NM_003791:p.N338I
16246	16	84370919	84370919	T	A	T	W	exonic	COX4NB	missense	NM_006067:p.S177C
16246	17	4980989	4980989	C	A	C	M	intronic	USP6	NA	NA
16246	17	10253130	10253130	G	T	G	K	intronic	MYH8	NA	NA
16246	17	17059275	17059275	T	G	T	K	exonic	FLCN	missense	NM_144997:p.S461R
16246	17	21253241	21253241	C	T	C	Y	intronic	KCNJ12	NA	NA
16246	17	25904783	25904783	C	T	C	Y	intergenic	NA	NA	NA
16246	17	27373487	27373487	G	T	G	K	exonic	LRRC37B	missense	NM_052888:p.K403N
16246	17	30714797	30714797	C	G	C	S	exonic	SLFN11	missense	NM_001104588:p.R48P
16246	17	31206762	31206762	G	T	G	K	intronic	C17orf66	NA	NA
16246	17	36977527	36977527	C	A	C	M	splicing	KRT9	nonsense	NM_000226:p.E466X
16246	17	44064920	44064920	C	G	C	S	ncRNA	MIR196A1	NA	NA
16246	17	50983867	50983867	C	T	C	Y	intergenic	NA	NA	NA
16246	17	52290943	52290943	A	G	A	R	intronic	DGKE	NA	NA
16246	17	52689481	52689481	G	T	G	K	exonic	MSI2	missense	NM_138962:p.S29I
16246	17	53588105	53588105	C	A	C	M	exonic	OR4D1	missense	NM_012374:p.L198I
16246	17	58191092	58191092	C	A	C	M	exonic	10-Mar	missense	NM_152598:p.S73I
16246	17	58925040	58925040	G	T	G	K	exonic	ACE	missense	NM_000789:p.K1054N
16246	18	8366398	8366398	A	G	A	R	intronic	PTPRM	NA	NA
16246	18	11743787	11743787	A	G	A	R	intronic	GNAL	NA	NA
16246	18	23253239	23253239	C	A	C	M	intergenic	NA	NA	NA
16246	18	41803200	41803200	C	T	C	Y	intergenic	NA	NA	NA
16246	18	41849849	41849849	A	T	A	W	intronic	PSTPIP2	NA	NA
16246	18	46056195	46056195	C	A	C	M	intronic	MBD1	NA	NA
16246	18	62362396	62362396	C	A	C	M	exonic	CDH19	missense	NM_021153:p.V336F
16246	19	1002419	1002419	C	T	C	Y	intronic	ABCA7	NA	NA
16246	19	2071963	2071963	G	A	G	R	exonic	AP3D1	missense	NM_003938:p.S460F
16246	19	4393181	4393181	G	T	G	K	intronic	CHAF1A	NA	NA
16246	19	45097772	45097772	G	C	G	S	exonic	FCGBP	missense	NM_003890:p.S1638R
16246	19	54227439	54227439	C	T	C	Y	intronic	CGB2	NA	NA
16246	19	59338614	59338614	T	C	T	Y	intronic	CNOT3	NA	NA
16246	19	59338623	59338623	G	T	G	K	intronic	CNOT3	NA	NA
16246	19	59558641	59558641	C	A	C	M	UTR3	LAIR1	NA	NA
16246	19	59900077	59900077	A	T	A	W	intergenic	NA	NA	NA
16246	19	59900078	59900078	G	T	G	K	intergenic	NA	NA	NA
16246	19	59904214	59904214	T	A	T	W	intergenic	NA	NA	NA
16246	19	59955536	59955536	G	A	G	R	intronic	KIR2DL3	NA	NA
16246	19	60739402	60739402	-	A	C	*/+A	exonic	SBK2	FS_ins	NM_001101401:p.L24fs
16246	19	60919863	60919863	C	G	C	S	intronic	NLRP9	NA	NA
16246	19	62716231	62716231	G	T	G	K	intergenic	NA	NA	NA
16246	20	2325273	2325273	C	A	C	M	intronic	TGM6	NA	NA
16246	20	3625725	3625725	C	A	C	M	intronic	SIGLEC1	NA	NA
16246	20	9365809	9365809	A	T	A	W	intronic	PLCB4	NA	NA
16246	20	13788008	13788008	G	T	G	K	exonic	SEL1L2	missense	NM_025229:p.T573K
16246	20	17410614	17410614	G	T	G	K	exonic	PCSK2	missense	NM_002594:p.D606Y
16246	20	28210713	28210713	T	C	T	Y	intergenic	NA	NA	NA
16246	20	39420705	39420705	G	T	G	K	intronic	LPIN3	NA	NA
16246	20	40166601	40166601	C	G	C	S	intronic	PTPRT	NA	NA
16246	20	47563101	47563101	G	T	G	K	exonic	PTGIS	missense	NM_000961:p.L377M

16246	20	57032325	57032325	C	G	C	S	exonic	TUBB1	missense	NM_030773:p.L150V
16246	20	57199503	57199503	C	A	C	M	exonic	ZNF831	missense	NM_178457:p.P12T
16246	21	10131183	10131183	C	T	C	Y	intergenic	NA	NA	NA
16246	21	31747323	31747323	T	A	T	W	intronic	TIAM1	NA	NA
16246	21	46376727	46376727	C	A	C	M	exonic	COL6A2	missense	NM_001849:p.R965S
16246	22	23226222	23226222	C	A	C	M	exonic	UPB1	silent	NM_016327:p.P84P
16246	22	23438376	23438376	G	C	G	S	intergenic	NA	NA	NA
16246	22	29839088	29839088	C	A	C	M	intergenic	NA	NA	NA
16246	22	30875729	30875729	T	C	T	Y	intronic	C22orf42	NA	NA
16246	22	35810405	35810405	C	A	C	M	intronic	TMPRSS6	NA	NA
16246	22	38546947	38546947	C	T	C	Y	exonic	ENTHD1	missense	NM_152512:p.A277T
16246	X	22042611	22042611	G	C	G	S	exonic	PHEX	missense	NM_000444:p.D430H
16246	X	22364140	22364140	G	T	G	K	intergenic	NA	NA	NA
16246	X	26122958	26122958	G	T	G	K	exonic	MAGEB6	silent	NM_173523:p.L358L
16246	X	26432695	26432695	G	T	G	K	intergenic	NA	NA	NA
16246	X	31406308	31406308	A	T	A	W	exonic	DMD	missense	NM_004020:p.W465R
16246	X	38549701	38549701	G	A	G	R	UTR3	MID1P1	NA	NA
16246	X	48431815	48431815	C	T	C	Y	intronic	WAS	NA	NA
16246	X	50072283	50072283	C	G	C	S	exonic	CCNB3	missense	NM_033031:p.P1112A
16246	X	53260806	53260806	T	A	T	W	intronic	KDM5C	NA	NA
16246	X	57720638	57720638	G	C	G	S	intergenic	NA	NA	NA
16246	X	65752537	65752537	G	T	G	K	exonic	EDA2R	silent	NM_021783:p.T17T
16246	X	68666254	68666254	G	T	G	K	exonic	FAM155B	missense	NM_015686:p.Q383H
16246	X	70247406	70247406	C	A	C	M	intronic	IL2RG	NA	NA
16246	X	78466550	78466550	G	T	G	K	intergenic	NA	NA	NA
16246	X	78504837	78504837	G	T	G	K	exonic	ITM2A	missense	NM_001171581:p.T106N
16246	X	79715162	79715162	C	A	C	M	intergenic	NA	NA	NA
16246	X	83897538	83897538	G	T	G	K	intergenic	NA	NA	NA
16246	X	86773997	86773997	G	T	G	K	exonic	KLHL4	missense	NM_019117:p.G486C
16246	X	91019650	91019650	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.R585S
16246	X	91760002	91760002	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.A1141S
16246	X	91818356	91818356	G	T	G	K	intergenic	NA	NA	NA
16246	X	101704890	101704890	A	G	A	R	ncRNA	NXF4	NA	NA
16246	X	107344186	107344186	-	A	G	*/+A	intronic	COL4A6	NA	NA
16246	X	107864602	107864602	G	T	G	K	exonic	IRS4	missense	NM_003604:p.N543K
16246	X	108583482	108583482	C	A	C	M	exonic	GUCY2F	missense	NM_001522:p.R432L
16246	X	133234321	133234321	G	T	G	K	intergenic	NA	NA	NA
16246	X	134571539	134571539	A	T	A	W	intergenic	NA	NA	NA
16246	X	134573156	134573156	T	C	T	Y	intergenic	NA	NA	NA
16246	X	135326312	135326312	C	A	C	M	exonic	GPR112	missense	NM_153834:p.P3080H
16246	X	139414783	139414783	G	T	G	K	exonic	SOX3	missense	NM_005634:p.H37N
16246	X	140796248	140796248	C	G	C	S	intronic	MAGEC3	NA	NA
16246	X	145509434	145509434	C	G	C	S	intergenic	NA	NA	NA
16246	X	146078826	146078826	C	A	C	M	intergenic	NA	NA	NA
16246	X	152622612	152622612	T	C	T	Y	exonic	BCAP31	missense	NM_001139457:p.K225R
16246	Y	10597387	10597387	-	T	C	*/+T	intergenic	NA	NA	NA
16246	Y	11726414	11726414	C	T	C	Y	intergenic	NA	NA	NA
16246	Y	11770913	11770913	G	T	G	K	intergenic	NA	NA	NA
16246	Y	11770915	11770915	C	A	C	M	intergenic	NA	NA	NA
16246	Y	57392476	57392476	G	A	G	R	intergenic	NA	NA	NA
16246	M	9622	9622	G	C	G	S	intergenic	NA	NA	NA
16461	1	1225335	1225335	C	A	C	M	intronic	ACAP3	NA	NA
16461	1	6114216	6114216	A	T	A	W	intronic	CHD5	NA	NA
16461	1	7756105	7756105	G	C	G	S	exonic	VAMP3	missense	NM_004781:p.A7P
16461	1	9723947	9723947	C	T	C	Y	intronic	CLSTN1	NA	NA
16461	1	11777149	11777149	C	T	C	Y	exonic	MTHFR	silent	NM_005957:p.L400L
16461	1	12339107	12339107	G	T	G	K	exonic	VPS13D	nonsense	NM_018156:p.E3288X
16461	1	12822803	12822803	C	A	C	M	intergenic	NA	NA	NA
16461	1	16134669	16134669	C	A	C	M	exonic	SPEN	missense	NM_015001:p.A3116E
16461	1	17822164	17822164	C	T	C	Y	exonic	ARHGEF10L	silent	NM_001011722:p.I330I
16461	1	23641615	23641615	C	A	C	M	exonic	ASAP3	missense	NM_001143778:p.R175I
16461	1	31513426	31513426	C	A	C	M	intronic	SNRNP40	NA	NA
16461	1	32616203	32616203	C	A	C	M	exonic	BSDC1	missense	NM_018045:p.A211S
16461	1	33771372	33771372	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.G3202W
16461	1	35625825	35625825	A	G	A	R	intronic	ZMYM4	NA	NA
16461	1	40549796	40549796	C	-	T	*/-C	exonic	COL9A2	FS_del	NM_001852:p.G161fs
16461	1	42279233	42279233	A	G	A	R	intergenic	NA	NA	NA
16461	1	42279847	42279847	G	C	G	S	intergenic	NA	NA	NA
16461	1	44194878	44194878	T	C	T	Y	exonic	IPO13	missense	NM_014652:p.M341T
16461	1	57171803	57171803	G	T	G	K	intronic	C8B	NA	NA
16461	1	64416573	64416573	G	A	G	R	exonic	ROR1	missense	NM_005012:p.S754N
16461	1	65006966	65006966	T	A	T	W	exonic	RAVER2	missense	NM_018211:p.C97S
16461	1	65117298	65117298	C	G	C	S	exonic	JAK1	missense	NM_002227:p.M109I
16461	1	65803854	65803854	C	A	C	M	exonic	LEPR	missense	NM_001198689:p.F6L
16461	1	70277699	70277699	C	A	C	M	exonic	LRRC7	missense	NM_020794:p.Q1164K
16461	1	70501138	70501138	G	A	G	R	intronic	ANKRD13C	NA	NA
16461	1	74606160	74606160	T	C	T	Y	intronic	FPGT-TNNI3I	NA	NA
16461	1	77433556	77433556	G	C	G	S	intronic	PIGK	NA	NA
16461	1	78181025	78181025	G	C	G	S	exonic	NEXN	missense	NM_144573:p.E651Q

16461	1	80331101	80331101	C	A	C	M	intergenic	NA	NA	NA
16461	1	82210202	82210202	C	T	C	Y	intronic	LPHN2	NA	NA
16461	1	84420489	84420489	G	C	G	S	exonic	PRKACB	missense	NM_207578:p.D43H
16461	1	86804031	86804031	C	A	C	M	ncRNA	CLCA4	NA	NA
16461	1	89298578	89298578	T	C	T	Y	exonic	GBP1	missense	NM_002053:p.T70A
16461	1	91773268	91773268	A	G	A	R	intergenic	NA	NA	NA
16461	1	93584768	93584768	G	A	G	R	UTR5	DR1	NA	NA
16461	1	94727826	94727826	T	C	T	Y	intronic	ABCD3	NA	NA
16461	1	99160143	99160143	G	T	G	K	exonic	LPPR5	nonsense	NM_001010861:p.C227X
16461	1	100364142	100364142	C	G	C	S	intronic	SASS6	NA	NA
16461	1	100444422	100444422	T	C	T	Y	exonic	DBT	silent	NM_001918:p.P411P
16461	1	109972690	109972690	C	T	C	Y	intronic	AMPD2	NA	NA
16461	1	119887111	119887111	G	T	G	K	intergenic	NA	NA	NA
16461	1	144962883	144962883	C	A	C	M	ncRNA	LOC728989	NA	NA
16461	1	144969114	144969114	G	T	G	K	ncRNA	LOC728989	NA	NA
16461	1	148187543	148187543	T	A	T	W	exonic	OTUD7B	missense	NM_020205:p.K397M
16461	1	148902670	148902670	C	A	C	M	intronic	GOLPH3L	NA	NA
16461	1	149640782	149640782	A	G	A	R	intronic	PSMB4	NA	NA
16461	1	149662617	149662617	C	G	C	S	exonic	POGZ	missense	NM_001194938:p.D458H
16461	1	150903301	150903301	C	G	C	S	exonic	LCE2D	missense	NM_178430:p.C32W
16461	1	151932185	151932185	C	T	C	Y	intronic	NPR1	NA	NA
16461	1	153433689	153433689	G	C	G	S	intronic	THBS3	NA	NA
16461	1	155079732	155079732	A	T	A	W	intronic	INSRR	NA	NA
16461	1	155088644	155088644	C	T	C	Y	intronic	INSRR	NA	NA
16461	1	156413724	156413724	T	C	T	Y	intergenic	NA	NA	NA
16461	1	156418740	156418740	T	A	T	W	intronic	CD1D	NA	NA
16461	1	156494297	156494297	T	A	T	W	UTR3	CD1A	NA	NA
16461	1	156527318	156527318	C	G	C	S	intronic	CD1C	NA	NA
16461	1	156854208	156854208	G	T	G	K	intronic	SPTA1	NA	NA
16461	1	156936697	156936697	C	A	C	M	exonic	OR6K2	missense	NM_001005279:p.A124S
16461	1	158370999	158370999	C	A	C	M	exonic	ATP1A2	silent	NM_000702:p.A643A
16461	1	158723114	158723114	C	T	C	Y	UTR3	SLAMF6	NA	NA
16461	1	163887970	163887970	A	G	A	R	intronic	MGST3	NA	NA
16461	1	166779625	166779625	A	G	A	R	intronic	XCL2	NA	NA
16461	1	167750274	167750274	G	T	G	K	exonic	F5	missense	NM_000130:p.F2192L
16461	1	175265395	175265395	C	A	C	M	exonic	ASTN1	missense	NM_207108:p.R373I
16461	1	180812038	180812038	T	A	T	W	exonic	RNASEL	missense	NM_021133:p.H672L
16461	1	181188553	181188553	A	T	A	W	exonic	SHCBP1L	silent	NM_030933:p.R113R
16461	1	181339370	181339370	G	T	G	K	exonic	LAMC1	missense	NM_002293:p.D235Y
16461	1	181763743	181763743	G	T	G	K	exonic	SMG7	nonsense	NM_173156:p.E172X
16461	1	191229656	191229656	C	A	C	M	intergenic	NA	NA	NA
16461	1	194494218	194494218	C	A	C	M	exonic	KCNT2	missense	NM_198503:p.W980C
16461	1	195665224	195665224	G	T	G	K	exonic	CRB1	missense	NM_001193640:p.G788V
16461	1	196499993	196499993	G	T	G	K	intronic	NEK7	NA	NA
16461	1	198112808	198112808	C	G	C	S	intergenic	NA	NA	NA
16461	1	198851269	198851269	T	C	T	Y	exonic	KIF14	missense	NM_014875:p.I402V
16461	1	198853747	198853747	T	A	T	W	exonic	KIF14	missense	NM_014875:p.K243M
16461	1	200106381	200106381	A	C	A	M	exonic	IPO9	missense	NM_018085:p.Q727H
16461	1	200214454	200214454	A	T	A	W	intergenic	NA	NA	NA
16461	1	201012799	201012799	G	A	G	R	exonic	KDM5B	missense	NM_006618:p.T84M
16461	1	206279563	206279563	G	-	C	*/-G	intronic	PLXNA2	NA	NA
16461	1	212237508	212237508	A	G	A	R	exonic	PROX1	missense	NM_002763:p.H336R
16461	1	214318104	214318104	C	A	C	M	exonic	USH2A	missense	NM_206933:p.G1841V
16461	1	216674263	216674263	A	G	A	R	intronic	TGFB2	NA	NA
16461	1	216674282	216674282	C	T	C	Y	intronic	TGFB2	NA	NA
16461	1	228405582	228405582	C	G	C	S	exonic	GALNT2	nonsense	NM_004481:p.Y99X
16461	1	233449801	233449801	C	G	C	S	exonic	ARID4B	missense	NM_016374:p.D505H
16461	1	233449921	233449921	G	C	G	S	intronic	ARID4B	NA	NA
16461	1	234713460	234713460	G	C	G	S	UTR3	EDARADD	NA	NA
16461	1	238437681	238437681	C	A	C	M	exonic	FMN2	silent	NM_020066:p.P982P
16461	1	239098706	239098706	G	T	G	K	exonic	RGS7	missense	NM_002924:p.Q174K
16461	1	240228992	240228992	A	T	A	W	UTR5	MAP1LC3C	NA	NA
16461	1	240354638	240354638	G	T	G	K	intronic	PLD5	NA	NA
16461	1	241497245	241497245	G	T	G	K	intronic	SDCCAG8	NA	NA
16461	1	245125766	245125766	T	A	T	W	exonic	AHCTF1	missense	NM_015446:p.T579S
16461	1	245902419	245902419	G	A	G	R	exonic	OR13G1	missense	NM_001005487:p.A183V
16461	1	246233114	246233114	C	G	C	S	intronic	OR2L13	NA	NA
16461	2	1478759	1478759	T	C	T	Y	intronic	TPO	NA	NA
16461	2	6241702	6241702	G	A	G	R	intergenic	NA	NA	NA
16461	2	8921771	8921771	C	A	C	M	exonic	MBOAT2	missense	NM_138799:p.Q344H
16461	2	9336847	9336847	C	T	C	Y	intronic	ASAP2	NA	NA
16461	2	9493915	9493915	G	T	G	K	exonic	CPSF3	missense	NM_016207:p.R245M
16461	2	9645737	9645737	C	A	C	M	intronic	YWHAQ	NA	NA
16461	2	10184640	10184640	C	T	C	Y	intronic	RRM2	NA	NA
16461	2	11251832	11251832	C	A	C	M	splicing	ROCK2	NA	NA
16461	2	24768094	24768094	G	A	G	R	intronic	NCOA1	NA	NA
16461	2	25157373	25157373	G	C	G	S	intronic	EFR3B	NA	NA
16461	2	25887083	25887083	T	C	T	Y	intronic	ASXL2	NA	NA
16461	2	27277670	27277670	G	A	G	R	ncRNA	SLC5A6	NA	NA



16461	2	31032074	31032074	C	T	C	Y	exonic	GALNT14	missense	NM_024572:p.A190T
16461	2	36796962	36796962	G	T	G	K	intronic	VIT	NA	NA
16461	2	39746692	39746692	C	A	C	M	exonic	TMEM178	missense	NM_152390:p.A25D
16461	2	46986293	46986293	T	A	T	W	intronic	MCFD2	NA	NA
16461	2	53889047	53889047	G	C	G	S	exonic	ERLEC1	missense	NM_001127397:p.L329F
16461	2	66900847	66900847	C	A	C	M	intergenic	NA	NA	NA
16461	2	71606838	71606838	G	A	G	R	intronic	DYSF	NA	NA
16461	2	71759850	71759850	G	C	G	S	exonic	DYSF	missense	NM_001130987:p.E2014Q
16461	2	74695828	74695828	G	T	G	K	intronic	C2orf65	NA	NA
16461	2	85425040	85425040	C	A	C	M	intronic	RETSAT	NA	NA
16461	2	85677330	85677330	C	T	C	Y	intronic	RNF181	NA	NA
16461	2	86685770	86685770	T	C	T	Y	exonic	RNF103	missense	NM_005667:p.I255M
16461	2	87263722	87263722	G	T	G	K	intergenic	NA	NA	NA
16461	2	88206980	88206980	G	C	G	S	exonic	FABP1	missense	NM_001443:p.L24V
16461	2	88846717	88846717	A	T	A	W	ncRNA	ANKRD36BP	NA	NA
16461	2	90960180	90960180	T	A	T	W	intergenic	NA	NA	NA
16461	2	90961414	90961414	G	C	G	S	intergenic	NA	NA	NA
16461	2	90975295	90975295	A	G	A	R	intergenic	NA	NA	NA
16461	2	91672897	91672897	G	C	G	S	intergenic	NA	NA	NA
16461	2	95210770	95210770	G	T	G	K	exonic	ZNF2	missense	NM_021088:p.R157L
16461	2	97010794	97010794	C	G	C	S	intronic	FAM178B	NA	NA
16461	2	99990278	99990278	G	T	G	K	exonic	AFF3	missense	NM_001025108:p.T109N
16461	2	99994444	99994444	C	T	C	Y	exonic	AFF3	silent	NM_001025108:p.Q25Q
16461	2	102171987	102171987	T	C	T	Y	exonic	IL1RL2	silent	NM_003854:p.F26F
16461	2	102394834	102394834	C	A	C	M	intergenic	NA	NA	NA
16461	2	104839461	104839461	T	A	T	W	exonic	POU3F3	missense	NM_006236:p.V354E
16461	2	104839774	104839774	C	A	C	M	exonic	POU3F3	silent	NM_006236:p.R458R
16461	2	110553031	110553031	C	A	C	M	intergenic	NA	NA	NA
16461	2	116201987	116201987	G	T	G	K	intronic	DPP10	NA	NA
16461	2	116227290	116227290	C	A	C	M	exonic	DPP10	missense	NM_001004360:p.Q334K
16461	2	118303075	118303075	G	T	G	K	intronic	DDX18	NA	NA
16461	2	127977633	127977633	A	G	A	R	intronic	IWS1	NA	NA
16461	2	127978729	127978729	C	G	C	S	splicing	IWS1	NA	NA
16461	2	133120277	133120277	G	T	G	K	exonic	LYPD1	silent	NM_001077427:p.I27I
16461	2	134876999	134876999	G	C	G	S	intronic	MGAT5	NA	NA
16461	2	140845229	140845229	C	T	C	Y	exonic	LRP1B	missense	NM_018557:p.G3622S
16461	2	141014986	141014986	A	T	A	W	intronic	LRP1B	NA	NA
16461	2	141014989	141014989	A	C	A	M	intronic	LRP1B	NA	NA
16461	2	141174422	141174422	C	A	C	M	exonic	LRP1B	missense	NM_018557:p.K2222N
16461	2	144870306	144870306	T	A	T	W	intronic	ZEB2	NA	NA
16461	2	160407210	160407210	G	C	G	S	intronic	LY75	NA	NA
16461	2	165919106	165919106	G	T	G	K	exonic	SCN2A	missense	NM_021007:p.Q1026H
16461	2	165953809	165953809	A	T	A	W	exonic	SCN2A	silent	NM_021007:p.P1749P
16461	2	170225814	170225814	G	C	G	S	intronic	C2orf77	NA	NA
16461	2	170523284	170523284	T	A	T	W	splicing	UBR3	NA	NA
16461	2	173764178	173764178	A	T	A	W	intronic	ZAK	NA	NA
16461	2	179323490	179323490	C	A	C	M	exonic	TTN	missense	NM_133379:p.C3961F
16461	2	183501263	183501263	C	T	C	Y	intronic	NCKAP1	NA	NA
16461	2	189626349	189626349	-	A	C	*/+A	intronic	COL5A2	NA	NA
16461	2	190041483	190041483	C	G	C	S	exonic	WDR75	missense	NM_032168:p.L556V
16461	2	196892456	196892456	T	A	T	W	exonic	HECW2	missense	NM_020760:p.E468V
16461	2	196895457	196895457	G	T	G	K	exonic	HECW2	missense	NM_020760:p.Q292K
16461	2	197654791	197654791	T	A	T	W	intronic	ANKRD44	NA	NA
16461	2	202311651	202311651	C	A	C	M	exonic	ALS2	missense	NM_020919:p.A802S
16461	2	204245256	204245256	C	T	C	Y	intergenic	NA	NA	NA
16461	2	207340018	207340018	C	G	C	S	exonic	FASTKD2	missense	NM_014929:p.S119C
16461	2	214853634	214853634	G	T	G	K	intronic	SPAG16	NA	NA
16461	2	215526903	215526903	C	T	C	Y	exonic	ABCA12	missense	NM_173076:p.M2189I
16461	2	220054566	220054566	G	T	G	K	intronic	SPEG	NA	NA
16461	2	220079305	220079305	C	T	C	Y	exonic	GMPPA	missense	NM_205847:p.P360L
16461	2	230369622	230369622	T	C	T	Y	exonic	TRIP12	missense	NM_004238:p.K1174E
16461	2	230817919	230817919	C	A	C	M	intronic	SP140	NA	NA
16461	2	237909496	237909496	C	A	C	M	intronic	COL6A3	NA	NA
16461	2	238831810	238831810	G	A	G	R	intronic	PER2	NA	NA
16461	2	238831812	238831812	C	A	C	M	intronic	PER2	NA	NA
16461	3	7696961	7696961	T	A	T	W	exonic	GRM7	missense	NM_000844:p.C893S
16461	3	9388215	9388215	G	A	G	R	exonic	THUMP3	missense	NM_015453:p.V268M
16461	3	19957830	19957830	A	G	A	R	intergenic	NA	NA	NA
16461	3	26726103	26726103	G	C	G	S	UTR5	LRRC3B	NA	NA
16461	3	27734163	27734163	C	A	C	M	exonic	EOMES	missense	NM_005442:p.R488L
16461	3	29104549	29104549	G	A	G	R	intergenic	NA	NA	NA
16461	3	34890053	34890053	T	C	T	Y	intergenic	NA	NA	NA
16461	3	37340427	37340427	G	A	G	R	exonic	GOLGA4	silent	NM_001172713:p.K704K
16461	3	38805599	38805599	G	T	G	K	intronic	SCN10A	NA	NA
16461	3	43616949	43616949	T	C	T	Y	exonic	ANO10	missense	NM_018075:p.K90E
16461	3	47274025	47274025	C	T	C	Y	exonic	KIF9	missense	NM_022342:p.M337I
16461	3	47944877	47944877	G	T	G	K	intronic	MAP4	NA	NA
16461	3	48673212	48673212	G	A	G	R	exonic	CELSR3	silent	NM_001407:p.I620I
16461	3	49058789	49058789	T	C	T	Y	intronic	QRICH1	NA	NA

16461	3	49058972	49058972	C	A	C	M	exonic	QRICH1	missense	NM_198880:p.V521L
16461	3	49136022	49136022	C	A	C	M	exonic	LAMB2	missense	NM_002292:p.D1282Y
16461	3	49637551	49637551	G	C	G	S	exonic	BSN	missense	NM_003458:p.A122P
16461	3	49670477	49670477	C	A	C	M	exonic	BSN	missense	NM_003458:p.F2828L
16461	3	52521651	52521651	G	A	G	R	splicing	STAB1	NA	NA
16461	3	52527045	52527045	G	T	G	K	exonic	STAB1	missense	NM_015136:p.A1583S
16461	3	52744060	52744060	A	C	A	M	intronic	NEK4	NA	NA
16461	3	52921721	52921721	G	T	G	K	intronic	SFMBT1	NA	NA
16461	3	54057799	54057799	T	-	A	*/-T	intergenic	NA	NA	NA
16461	3	57258554	57258554	G	T	G	K	exonic	APPL1	silent	NM_012096:p.V330V
16461	3	62085188	62085188	C	A	C	M	ncRNA	ID2B	NA	NA
16461	3	62331016	62331016	G	T	G	K	exonic	FEZF2	missense	NM_018008:p.Q388K
16461	3	68767846	68767846	G	T	G	K	intergenic	NA	NA	NA
16461	3	69133464	69133464	T	A	T	W	exonic	C3orf64	missense	NM_173654:p.M238L
16461	3	77678297	77678297	C	T	C	Y	exonic	ROBO2	nonsense	NM_001128929:p.Q332X
16461	3	80089353	80089353	G	T	G	K	intergenic	NA	NA	NA
16461	3	88449186	88449186	G	A	G	R	intergenic	NA	NA	NA
16461	3	90347437	90347437	G	A	G	R	intergenic	NA	NA	NA
16461	3	95708376	95708376	T	G	T	K	intergenic	NA	NA	NA
16461	3	108050325	108050325	C	A	C	M	intergenic	NA	NA	NA
16461	3	110673103	110673103	C	A	C	M	intronic	FLJ25363	NA	NA
16461	3	112808383	112808383	T	A	T	W	intronic	CD96	NA	NA
16461	3	114996650	114996650	G	T	G	K	exonic	ATP6V1A	missense	NM_001690:p.G379C
16461	3	115552544	115552544	C	G	C	S	exonic	ZBTB20	silent	NM_001164346:p.T284T
16461	3	120106213	120106213	C	A	C	M	exonic	IGSF11	nonsense	NM_152538:p.E275X
16461	3	120617611	120617611	C	A	C	M	exonic	ARHGAP31	missense	NM_020754:p.T1382K
16461	3	121008984	121008984	G	T	G	K	splicing	NR1I2	missense	NM_033013:p.R66M
16461	3	128777407	128777407	C	A	C	M	intronic	TPRA1	NA	NA
16461	3	132776642	132776642	A	C	A	M	exonic	CPNE4	missense	NM_130808:p.L297W
16461	3	150575884	150575884	T	C	T	Y	intronic	TM4SF1	NA	NA
16461	3	157376639	157376639	C	A	C	M	intronic	KCNAB1	NA	NA
16461	3	166199044	166199044	G	T	G	K	exonic	SI	missense	NM_001041:p.D1506E
16461	3	170316012	170316012	C	A	C	M	exonic	MECOM	missense	NM_001163999:p.S594I
16461	3	171103787	171103787	G	T	G	K	intergenic	NA	NA	NA
16461	3	177178527	177178527	C	A	C	M	intergenic	NA	NA	NA
16461	3	182148360	182148360	C	T	C	Y	exonic	FXR1	missense	NM_001013438:p.A71V
16461	3	185259130	185259130	C	T	C	Y	intronic	HTR3C	NA	NA
16461	3	185365290	185365290	A	G	A	R	exonic	DVL3	missense	NM_004423:p.N159S
16461	3	188453611	188453611	G	T	G	K	ncRNA	MASP1	NA	NA
16461	3	191173270	191173270	C	G	C	S	intronic	LEPREL1	NA	NA
16461	3	192419303	192419303	C	G	C	S	exonic	OSTN	missense	NM_198184:p.T59R
16461	3	197871164	197871164	A	T	A	W	exonic	LRRC33	missense	NM_198565:p.S85C
16461	4	1331974	1331974	G	T	G	K	exonic	KIAA1530	missense	NM_020894:p.C32F
16461	4	1378655	1378655	A	T	A	W	exonic	CRIPAK	missense	NM_175918:p.H119L
16461	4	4462215	4462215	C	A	C	M	exonic	D4S234E	silent	NM_014392:p.V87V
16461	4	30335103	30335103	C	A	C	M	exonic	PCDH7	silent	NM_001173523:p.P987P
16461	4	36185245	36185245	T	A	T	W	intergenic	NA	NA	NA
16461	4	42148788	42148788	G	A	G	R	exonic	ATP8A1	silent	NM_006095:p.L955L
16461	4	45794051	45794051	A	G	A	R	exonic	GABRG1	silent	NM_173536:p.I59I
16461	4	45947060	45947060	C	T	C	Y	UTR3	GABRA2	NA	NA
16461	4	47637581	47637581	G	T	G	K	exonic	CNGA1	nonsense	NM_001142564:p.S276X
16461	4	49224122	49224122	G	A	G	R	intergenic	NA	NA	NA
16461	4	56457800	56457800	T	G	T	K	exonic	EXOC1	missense	NM_018261:p.L705R
16461	4	57571330	57571330	G	T	G	K	exonic	POLR2B	missense	NM_000938:p.R484L
16461	4	57593331	57593331	G	C	G	S	intronic	IGFBP7	NA	NA
16461	4	63898555	63898555	C	A	C	M	intergenic	NA	NA	NA
16461	4	68462850	68462850	G	T	G	K	intronic	TMPRSS11A	NA	NA
16461	4	68885405	68885405	G	C	G	S	exonic	YTHDC1	missense	NM_133370:p.S273C
16461	4	70857626	70857626	G	T	G	K	exonic	CSN2	silent	NM_001891:p.I210I
16461	4	77162380	77162380	A	T	A	W	intronic	ART3	NA	NA
16461	4	82284529	82284529	A	G	A	R	intronic	PRKG2	NA	NA
16461	4	85927757	85927757	G	C	G	S	exonic	WDFY3	missense	NM_014991:p.T1268R
16461	4	89602386	89602386	C	A	C	M	exonic	HERC5	missense	NM_016323:p.P182T
16461	4	89641081	89641081	G	A	G	R	intronic	HERC5	NA	NA
16461	4	103602003	103602003	A	C	A	M	intergenic	NA	NA	NA
16461	4	109993594	109993594	C	A	C	M	intronic	COL25A1	NA	NA
16461	4	111617255	111617255	C	T	C	Y	exonic	ENPEP	missense	NM_001977:p.P79L
16461	4	114497796	114497796	G	C	G	S	exonic	ANK2	missense	NM_001148:p.G2858A
16461	4	120534957	120534957	C	A	C	M	intergenic	NA	NA	NA
16461	4	123521791	123521791	T	G	T	K	intronic	ADAD1	NA	NA
16461	4	123548664	123548664	T	A	T	W	intronic	ADAD1	NA	NA
16461	4	126592414	126592414	G	C	G	S	exonic	FAT4	missense	NM_024582:p.G3598A
16461	4	130247211	130247211	G	A	G	R	exonic	C4orf33	silent	NM_001099783:p.L67L
16461	4	137496262	137496262	C	G	C	S	intergenic	NA	NA	NA
16461	4	146989891	146989891	C	A	C	M	intronic	ZNF827	NA	NA
16461	4	151373357	151373357	A	C	A	M	exonic	DCLK2	missense	NM_001040261:p.N515T
16461	4	152242681	152242681	C	G	C	S	intronic	RPS3A	NA	NA
16461	4	154011414	154011414	C	G	C	S	exonic	ARFIP1	missense	NM_001025595:p.L88V
16461	4	154776856	154776856	T	C	T	Y	intronic	KIAA0922	NA	NA

16461	4	158476255	158476255	C	T	C	Y	intronic	GRIA2	NA	NA
16461	4	166440254	166440254	C	G	C	S	exonic	KLHL2	missense	NM_001161522:p.P218R
16461	4	172272079	172272079	C	A	C	M	intergenic	NA	NA	NA
16461	4	175801572	175801572	A	G	A	R	exonic	GLRA3	silent	NM_006529:p.I445I
16461	4	177320231	177320231	A	T	A	W	exonic	WDR17	missense	NM_181265:p.K921I
16461	4	177320241	177320241	A	G	A	R	exonic	WDR17	silent	NM_181265:p.K924K
16461	4	187357026	187357026	C	T	C	Y	intronic	CYP4V2	NA	NA
16461	5	5235462	5235462	T	A	T	W	intronic	ADAMTS16	NA	NA
16461	5	11045745	11045745	G	C	G	S	exonic	CTNND2	missense	NM_001332:p.I1043M
16461	5	13767479	13767479	C	A	C	M	intronic	DNAH5	NA	NA
16461	5	14560397	14560397	G	T	G	K	intronic	TRIO	NA	NA
16461	5	23340217	23340217	G	C	G	S	intergenic	NA	NA	NA
16461	5	26775610	26775610	C	A	C	M	intergenic	NA	NA	NA
16461	5	32127020	32127020	G	C	G	S	exonic	PDZD2	missense	NM_178140:p.R2570T
16461	5	36084553	36084553	T	A	T	W	ncRNA	UGT3A2	NA	NA
16461	5	37053062	37053062	G	T	G	K	intronic	NIPBL	NA	NA
16461	5	38524973	38524973	C	G	C	S	exonic	LIFR	missense	NM_002310:p.E767Q
16461	5	40868546	40868546	C	A	C	M	ncRNA	SNORD72	NA	NA
16461	5	41621929	41621929	C	A	C	M	intergenic	NA	NA	NA
16461	5	41885842	41885842	C	A	C	M	intronic	OXCT1	NA	NA
16461	5	50156547	50156547	G	A	G	R	exonic	PARP8	missense	NM_001178056:p.A595T
16461	5	52251931	52251931	G	C	G	S	exonic	ITGA1	missense	NM_181501:p.R723P
16461	5	52358526	52358526	T	G	T	K	intronic	ITGA2	NA	NA
16461	5	54502108	54502108	G	T	G	K	intronic	CDC20B	NA	NA
16461	5	55524760	55524760	G	A	G	R	intronic	ANKRD55	NA	NA
16461	5	56210598	56210598	G	T	G	K	exonic	MAP3K1	missense	NM_005921:p.C667F
16461	5	56651307	56651307	A	T	A	W	intergenic	NA	NA	NA
16461	5	75407277	75407277	C	A	C	M	intergenic	NA	NA	NA
16461	5	75708544	75708544	A	T	A	W	intergenic	NA	NA	NA
16461	5	76877809	76877809	G	C	G	S	intergenic	NA	NA	NA
16461	5	78842425	78842425	T	C	T	Y	intronic	HOMER1	NA	NA
16461	5	98221948	98221948	C	A	C	M	exonic	CHD1	missense	NM_001270:p.R1541S
16461	5	101736878	101736878	A	G	A	R	intronic	SLCO6A1	NA	NA
16461	5	107939229	107939229	G	T	G	K	intergenic	NA	NA	NA
16461	5	112207331	112207331	G	A	G	R	exonic	APC	missense	NM_000038:p.R2714H
16461	5	127148519	127148519	G	T	G	K	intergenic	NA	NA	NA
16461	5	128348808	128348808	G	C	G	S	exonic	SLC27A6	missense	NM_014031:p.G189R
16461	5	134168556	134168556	C	A	C	M	intronic	DDX46	NA	NA
16461	5	138735759	138735759	G	C	G	S	exonic	SLC23A1	nonsense	NM_152685:p.Y548X
16461	5	140495585	140495585	C	A	C	M	exonic	PCDHB5	missense	NM_015669:p.H129N
16461	5	140543660	140543660	G	C	G	S	exonic	PCDHB16	missense	NM_020957:p.A448P
16461	5	140554588	140554588	G	T	G	K	exonic	PCDHB10	missense	NM_018930:p.G760V
16461	5	140568759	140568759	C	A	C	M	exonic	PCDHB12	missense	NM_018932:p.N32K
16461	5	140575571	140575571	G	A	G	R	exonic	PCDHB13	silent	NM_018933:p.P564P
16461	5	140700677	140700677	C	A	C	M	exonic	PCDHGA2	missense	NM_018915:p.P652H
16461	5	142415862	142415862	C	G	C	S	intronic	ARHGAP26	NA	NA
16461	5	147908544	147908544	G	A	G	R	exonic	HTR4	missense	NM_001040173:p.A78V
16461	5	154377338	154377338	C	T	C	Y	UTR3	KIF4B	NA	NA
16461	5	156840686	156840686	G	A	G	R	intronic	ADAM19	NA	NA
16461	5	179065886	179065886	C	T	C	Y	exonic	CANX	missense	NM_001746:p.P65S
16461	5	179161081	179161081	G	T	G	K	intronic	MGAT4B	NA	NA
16461	5	179975918	179975918	C	A	C	M	intronic	FLT4	NA	NA
16461	6	3171032	3171032	G	T	G	K	exonic	TUBB2B	missense	NM_178012:p.A97D
16461	6	4044368	4044368	G	T	G	K	exonic	C6orf201	missense	NM_001085401:p.W74L
16461	6	4660964	4660964	G	T	G	K	ncRNA	CDYL	NA	NA
16461	6	10683273	10683273	C	T	C	Y	intronic	GCNT2	NA	NA
16461	6	16393894	16393894	G	T	G	K	intronic	GMPR	NA	NA
16461	6	24564784	24564784	C	A	C	M	exonic	GPLD1	missense	NM_001503:p.G357C
16461	6	25131631	25131631	G	T	G	K	intergenic	NA	NA	NA
16461	6	26199257	26199257	C	T	C	Y	exonic	HFE	missense	NM_139006:p.H96Y
16461	6	27222111	27222111	C	G	C	S	intronic	HIST1H2BK	NA	NA
16461	6	28401960	28401960	T	A	T	W	exonic	ZNF323	nonsense	NM_001135216:p.K395X
16461	6	29163039	29163039	T	C	T	Y	UTR5	OR2B3	NA	NA
16461	6	29749119	29749119	G	C	G	S	exonic	ZFP57	missense	NM_001109809:p.R250G
16461	6	31739908	31739908	C	T	C	Y	exonic	GPANK1	silent	NM_001199237:p.L109L
16461	6	32036663	32036663	C	T	C	Y	intronic	SKIV2L	NA	NA
16461	6	32038283	32038283	G	T	G	K	exonic	SKIV2L	missense	NM_006929:p.G385W
16461	6	36550754	36550754	A	G	A	R	exonic	KCTD20	missense	NM_173562:p.D124G
16461	6	38939622	38939622	G	T	G	K	intronic	DNAH8	NA	NA
16461	6	41992505	41992505	G	C	G	S	exonic	MED20	missense	NM_004275:p.S55R
16461	6	42959231	42959231	A	T	A	W	exonic	RPL7L1	missense	NM_198486:p.Q62L
16461	6	43328845	43328845	T	C	T	Y	intronic	TTBK1	NA	NA
16461	6	45567842	45567842	C	A	C	M	intronic	RUNX2	NA	NA
16461	6	46025135	46025135	G	T	G	K	intronic	CLIC5	NA	NA
16461	6	49910960	49910960	G	T	G	K	UTR3	CRISP1	NA	NA
16461	6	50894630	50894630	G	C	G	S	exonic	TFAP2B	missense	NM_003221:p.E23Q
16461	6	54597675	54597675	C	A	C	M	intergenic	NA	NA	NA
16461	6	55236465	55236465	T	-	G	*/-T	splicing	HCRTR2	FS_del	NM_001526:p.G216fs
16461	6	56588805	56588805	C	G	C	S	exonic	DST	silent	NM_001723:p.R2473R

16461	6	66860253	66860253	A	T	A	W	intergenic	NA	NA	NA
16461	6	70139107	70139107	T	A	T	W	intronic	BAI3	NA	NA
16461	6	70998985	70998985	C	A	C	M	intronic	COL9A1	NA	NA
16461	6	86310145	86310145	C	G	C	S	exonic	SNX14	silent	NM_020468:p.L343L
16461	6	88442381	88442381	G	C	G	S	intronic	AKIRIN2	NA	NA
16461	6	94177383	94177383	G	A	G	R	exonic	EPHA7	missense	NM_004440:p.T130I
16461	6	110219483	110219483	G	A	G	R	intronic	FIG4	NA	NA
16461	6	112777975	112777975	C	T	C	Y	exonic	RFPL4B	silent	NM_001013734:p.H124H
16461	6	116370710	116370710	C	A	C	M	intronic	FRK	NA	NA
16461	6	117220453	117220453	-	AGGTA	C	*/+AGGTA	exonic	GPRC6A	FS_ins	NM_148963:p.E776fs
16461	6	117353301	117353301	C	G	C	S	intronic	RFX6	NA	NA
16461	6	122794791	122794791	C	A	C	M	exonic	HSF2	silent	NM_004506:p.T446T
16461	6	126283848	126283848	G	T	G	K	exonic	NCOA7	nonsense	NM_001199621:p.E656X
16461	6	129691339	129691339	T	A	T	W	intronic	LAMA2	NA	NA
16461	6	143134953	143134953	C	A	C	M	exonic	HIVEP2	missense	NM_006734:p.Q872H
16461	6	147676751	147676751	A	T	A	W	exonic	STXBP5	missense	NM_001127715:p.H395L
16461	6	150309322	150309322	G	C	G	S	exonic	ULBP2	missense	NM_025217:p.M157I
16461	6	152748603	152748603	C	A	C	M	exonic	SYNE1	nonsense	NM_182961:p.E2851X
16461	6	152861661	152861661	A	T	A	W	intronic	SYNE1	NA	NA
16461	6	155661271	155661271	G	C	G	S	intronic	TFB1M	NA	NA
16461	6	159380240	159380240	T	A	T	W	exonic	TAGAP	missense	NM_152133:p.N48I
16461	7	7496765	7496765	C	G	C	S	exonic	COL28A1	missense	NM_001037763:p.G355A
16461	7	10457619	10457619	G	T	G	K	intergenic	NA	NA	NA
16461	7	10458497	10458497	C	A	C	M	intergenic	NA	NA	NA
16461	7	17968794	17968794	C	A	C	M	intergenic	NA	NA	NA
16461	7	29218451	29218451	G	T	G	K	intronic	CHN2	NA	NA
16461	7	29572423	29572423	G	T	G	K	UTR5	PRR15	NA	NA
16461	7	36412459	36412459	C	T	C	Y	exonic	ANLN	missense	NM_018685:p.S211F
16461	7	37425779	37425779	T	A	T	W	intronic	ELMO1	NA	NA
16461	7	40159378	40159378	G	A	G	R	intronic	C7orf10	NA	NA
16461	7	45716690	45716690	G	C	G	S	exonic	ADCY1	missense	NM_021116:p.A991P
16461	7	50630670	50630670	T	G	T	K	exonic	GRB10	silent	NM_001001550:p.T474T
16461	7	51063727	51063727	C	A	C	M	exonic	COBL	missense	NM_015198:p.V854F
16461	7	53071619	53071619	C	A	C	M	exonic	POM121L12	missense	NM_182595:p.S254Y
16461	7	55427007	55427007	C	A	C	M	exonic	LANCL2	missense	NM_018697:p.Q78K
16461	7	56326501	56326501	C	A	C	M	intergenic	NA	NA	NA
16461	7	77217048	77217048	G	T	G	K	exonic	RSBN1L	missense	NM_198467:p.A359S
16461	7	77635373	77635373	G	A	G	R	intronic	MAGI2	NA	NA
16461	7	86306488	86306488	C	T	C	Y	exonic	GRM3	silent	NM_000840:p.D574D
16461	7	89765052	89765052	G	T	G	K	exonic	C7orf63	missense	NM_001160138:p.G592V
16461	7	90422981	90422981	C	T	C	Y	exonic	CDK14	missense	NM_012395:p.T269I
16461	7	93463597	93463597	T	A	T	W	intronic	BET1	NA	NA
16461	7	95272032	95272032	G	T	G	K	exonic	DYNC111	missense	NM_001135556:p.A19S
16461	7	100625934	100625934	G	T	G	K	UTR3	MOGAT3	NA	NA
16461	7	102367325	102367325	T	C	T	Y	intronic	FBXL13	NA	NA
16461	7	104569661	104569661	G	T	G	K	intronic	SRPK2	NA	NA
16461	7	104569662	104569662	G	T	G	K	intronic	SRPK2	NA	NA
16461	7	106307125	106307125	C	A	C	M	intronic	PIK3CG	NA	NA
16461	7	107483235	107483235	G	T	G	K	intronic	LAMB4	NA	NA
16461	7	107607974	107607974	T	A	T	W	exonic	NRCAM	missense	NM_001193582:p.N927I
16461	7	115986415	115986415	G	T	G	K	exonic	CAV1	silent	NM_001172895:p.L94L
16461	7	121395349	121395349	A	G	A	R	exonic	PTPRZ1	missense	NM_002851:p.K78R
16461	7	121465954	121465954	A	T	A	W	intronic	PTPRZ1	NA	NA
16461	7	131037696	131037696	C	A	C	M	intergenic	NA	NA	NA
16461	7	131228124	131228124	G	T	G	K	intergenic	NA	NA	NA
16461	7	131563655	131563655	T	A	T	W	exonic	PLXNA4	missense	NM_020911:p.Y573F
16461	7	133783782	133783782	C	T	C	Y	exonic	AKR1B1	missense	NM_001628:p.E186K
16461	7	139373734	139373734	C	G	C	S	intronic	PARP12	NA	NA
16461	7	140344583	140344583	A	T	A	W	intergenic	NA	NA	NA
16461	7	142369256	142369256	T	G	T	K	intronic	KEL	NA	NA
16461	7	142629223	142629223	G	T	G	K	upstream	TAS2R40	NA	NA
16461	7	149841603	149841603	G	A	G	R	intergenic	NA	NA	NA
16461	7	151533248	151533248	C	G	C	S	intronic	MLL3	NA	NA
16461	7	151591120	151591120	C	A	C	M	exonic	MLL3	missense	NM_170606:p.V405L
16461	8	1795734	1795734	G	C	G	S	exonic	ARHGEF10	missense	NM_014629:p.C153S
16461	8	12538069	12538069	A	T	A	W	intergenic	NA	NA	NA
16461	8	13303341	13303341	A	G	A	R	intronic	DLC1	NA	NA
16461	8	19861109	19861109	T	A	T	W	exonic	LPL	missense	NM_000237:p.N359K
16461	8	24830935	24830935	G	C	G	S	exonic	NEFM	missense	NM_005382:p.E554D
16461	8	26293236	26293236	C	T	C	Y	intergenic	NA	NA	NA
16461	8	27751995	27751995	C	A	C	M	upstream	PBK	NA	NA
16461	8	30330244	30330244	C	T	C	Y	intergenic	NA	NA	NA
16461	8	32719769	32719769	A	T	A	W	exonic	NRG1	missense	NM_001160004:p.N223Y
16461	8	34300380	34300380	T	G	T	K	intergenic	NA	NA	NA
16461	8	37812217	37812217	T	A	T	W	intronic	GPR124	NA	NA
16461	8	39134610	39134610	A	G	A	R	intronic	ADAM32	NA	NA
16461	8	43245201	43245201	C	A	C	M	intergenic	NA	NA	NA
16461	8	86229469	86229469	A	T	A	W	exonic	LRRCC1	nonsense	NM_033402:p.R564X
16461	8	86576541	86576541	C	G	C	S	intronic	CA2	NA	NA

16461	8	87124642	87124642	A	C	A	M	intergenic	NA	NA	NA
16461	8	87626140	87626140	G	T	G	K	exonic	CPNE3	missense	NM_003909:p.Q230H
16461	8	91051864	91051864	C	G	C	S	exonic	NBN	missense	NM_002485:p.G267A
16461	8	92991445	92991445	G	T	G	K	intergenic	NA	NA	NA
16461	8	95847099	95847099	G	T	G	K	intronic	DPY19L4	NA	NA
16461	8	101788240	101788240	C	A	C	M	intronic	PABPC1	NA	NA
16461	8	103379883	103379883	C	T	C	Y	exonic	UBR5	missense	NM_015902:p.G1113R
16461	8	111049949	111049949	C	A	C	M	exonic	KCNV1	silent	NM_014379:p.L349L
16461	8	113416963	113416963	A	T	A	W	intronic	CSMD3	NA	NA
16461	8	113654862	113654862	C	T	C	Y	intronic	CSMD3	NA	NA
16461	8	113940514	113940514	G	A	G	R	intronic	CSMD3	NA	NA
16461	8	115399933	115399933	C	A	C	M	intergenic	NA	NA	NA
16461	8	116685406	116685406	C	A	C	M	exonic	TRPS1	silent	NM_014112:p.S655S
16461	8	124410121	124410121	T	A	T	W	intronic	ATAD2	NA	NA
16461	8	131928823	131928823	C	A	C	M	intronic	ADCY8	NA	NA
16461	8	134194857	134194857	G	C	G	S	exonic	TG	missense	NM_003235:p.E2528Q
16461	8	139224498	139224498	G	T	G	K	exonic	FAM135B	silent	NM_015912:p.R1193R
16461	8	139675499	139675499	G	A	G	R	exonic	COL22A1	missense	NM_152888:p.P1520S
16461	8	139784745	139784745	C	A	C	M	exonic	COL22A1	missense	NM_152888:p.G849W
16461	8	139902637	139902637	A	T	A	W	exonic	COL22A1	missense	NM_152888:p.I390N
16461	9	650239	650239	A	G	A	R	intronic	KANK1	NA	NA
16461	9	2063444	2063444	G	T	G	K	intronic	SMARCA2	NA	NA
16461	9	4840297	4840297	A	T	A	W	ncRNA	MIR101-2	NA	NA
16461	9	7467243	7467243	G	C	G	S	intergenic	NA	NA	NA
16461	9	8309927	8309927	G	T	G	K	exonic	PTPRD	missense	NM_002839:p.S1858R
16461	9	18625990	18625990	T	A	T	W	exonic	ADAMTSL1	silent	NM_001040272:p.L217L
16461	9	19314540	19314540	A	T	A	W	intronic	DENND4C	NA	NA
16461	9	23671887	23671887	G	T	G	K	intergenic	NA	NA	NA
16461	9	34600809	34600809	C	A	C	M	exonic	C9orf23	missense	NM_148178:p.R162L
16461	9	36090547	36090547	T	C	T	Y	intronic	RECK	NA	NA
16461	9	36090589	36090589	C	T	C	Y	intronic	RECK	NA	NA
16461	9	39078457	39078457	G	C	G	S	exonic	CNTNAP3	missense	NM_033655:p.F1061L
16461	9	67902712	67902712	G	A	G	R	intergenic	NA	NA	NA
16461	9	72669189	72669189	G	T	G	K	exonic	TRPM3	missense	NM_001007471:p.P79H
16461	9	89738762	89738762	G	A	G	R	intergenic	NA	NA	NA
16461	9	93525846	93525846	T	G	T	K	exonic	ROR2	missense	NM_004560:p.E917D
16461	9	93535427	93535427	T	A	T	W	exonic	ROR2	silent	NM_004560:p.T245T
16461	9	98325694	98325694	C	T	C	Y	exonic	CDC14B	missense	NM_033331:p.V361M
16461	9	98343878	98343878	C	A	C	M	intronic	CDC14B	NA	NA
16461	9	100870706	100870706	G	T	G	K	exonic	COL15A1	missense	NM_001855:p.G1296C
16461	9	105925215	105925215	G	T	G	K	exonic	SMC2	missense	NM_001042550:p.R713L
16461	9	115896000	115896000	G	T	G	K	exonic	KIF12	missense	NM_138424:p.H325N
16461	9	117203424	117203424	T	C	T	Y	intronic	1-Dec	NA	NA
16461	9	118500739	118500739	G	A	G	R	exonic	TRIM32	silent	NM_001099679:p.R299R
16461	9	124720755	124720755	G	A	G	R	exonic	ZBTB26	missense	NM_020924:p.A427V
16461	9	128142692	128142692	G	T	G	K	exonic	FAM125B	missense	NM_033446:p.V56L
16461	9	130123611	130123611	G	-	T	*/-G	intronic	TRUB2	NA	NA
16461	9	130795698	130795698	A	T	A	W	exonic	NUP188	missense	NM_015354:p.Y974F
16461	9	131937197	131937197	G	T	G	K	exonic	GPR107	missense	NM_001136558:p.Q564H
16461	9	132950840	132950840	C	A	C	M	exonic	LAMC3	missense	NM_006059:p.A1380E
16461	9	134196434	134196434	C	A	C	M	intronic	SETX	NA	NA
16461	10	5822487	5822487	G	T	G	K	intronic	C10orf18	NA	NA
16461	10	18310291	18310291	G	-	A	*/-G	exonic	SLC39A12	FS_del	NM_152725:p.K323fs
16461	10	21217119	21217119	T	C	T	Y	exonic	NEBL	silent	NM_006393:p.K94K
16461	10	23522689	23522689	C	A	C	M	exonic	PTF1A	missense	NM_178161:p.H279N
16461	10	24850738	24850738	A	G	A	R	exonic	KIAA1217	missense	NM_001098500:p.N697S
16461	10	30220103	30220103	G	T	G	K	intergenic	NA	NA	NA
16461	10	34688211	34688211	T	C	T	Y	exonic	PARD3	missense	NM_001184785:p.N646S
16461	10	35882090	35882090	G	T	G	K	exonic	CCNY	missense	NM_181698:p.Q185H
16461	10	37593419	37593419	A	T	A	W	intergenic	NA	NA	NA
16461	10	51491441	51491441	G	A	G	R	intergenic	NA	NA	NA
16461	10	54197985	54197985	C	G	C	S	exonic	MBL2	missense	NM_000242:p.C222S
16461	10	55583106	55583106	C	A	C	M	intronic	PCDH15	NA	NA
16461	10	59667516	59667516	C	A	C	M	exonic	IPMK	nonsense	NM_152230:p.E86X
16461	10	60219055	60219055	G	T	G	K	exonic	BICC1	nonsense	NM_001080512:p.E210X
16461	10	60567760	60567760	G	T	G	K	intergenic	NA	NA	NA
16461	10	66255463	66255463	A	T	A	W	ncRNA	ANXA2P3	NA	NA
16461	10	67418480	67418480	G	T	G	K	exonic	CTNNA3	silent	NM_013266:p.V747V
16461	10	69806512	69806512	G	A	G	R	intronic	RUFY2	NA	NA
16461	10	97086324	97086324	G	T	G	K	exonic	SORBS1	silent	NM_001034954:p.R1195R
16461	10	98277860	98277860	C	T	C	Y	exonic	TM9SF3	missense	NM_020123:p.V487M
16461	10	104258849	104258849	G	A	G	R	intronic	SUFU	NA	NA
16461	10	108417469	108417469	G	A	G	R	exonic	SORCS1	silent	NM_001013031:p.C757C
16461	10	108417470	108417470	C	A	C	M	exonic	SORCS1	missense	NM_001013031:p.C757F
16461	10	108456248	108456248	G	T	G	K	intronic	SORCS1	NA	NA
16461	10	108456252	108456252	G	T	G	K	intronic	SORCS1	NA	NA
16461	10	111411659	111411659	C	A	C	M	intergenic	NA	NA	NA
16461	10	114053086	114053086	T	A	T	W	downstream	TECTB	NA	NA
16461	10	115517207	115517207	A	T	A	W	exonic	C10orf81	missense	NM_001193434:p.Y25F

16461	10	116082968	116082968	A	G	A	R	splicing	AFAP1L2	NA	NA
16461	10	116909801	116909801	T	A	T	W	exonic	ATRN1L	nonsense	NM_207303:p.C280X
16461	10	116965629	116965629	G	C	G	S	splicing	ATRN1L	NA	NA
16461	10	117016260	117016260	A	G	A	R	intronic	ATRN1L	NA	NA
16461	10	118425906	118425906	G	T	G	K	exonic	HSPA12A	missense	NM_025015:p.H462N
16461	10	121746761	121746761	T	C	T	Y	intergenic	NA	NA	NA
16461	10	126087538	126087538	G	C	G	S	intronic	OAT	NA	NA
16461	10	129795058	129795058	G	C	G	S	exonic	MKI67	missense	NM_002417:p.S1679C
16461	10	133636629	133636629	G	C	G	S	intronic	BNIP3	NA	NA
16461	10	134972884	134972884	G	A	G	R	splicing	ZNF511	missense	NM_145806:p.D52N
16461	11	1562768	1562768	-	T	C	Y	exonic	KRTAP5-1	silent	NM_001005922:p.K96K
16461	11	3072084	3072084	-	A	C	*/+A	exonic	OSBPL5	FS_ins	NM_145638:p.A492fs
16461	11	4572116	4572116	C	A	C	M	exonic	OR5211	nonsense	NM_001005169:p.S91X
16461	11	4977525	4977525	A	T	A	W	exonic	OR51L1	missense	NM_001004755:p.H246L
16461	11	5220882	5220882	G	C	G	S	ncRNA	HBBP1	NA	NA
16461	11	7762343	7762343	C	A	C	M	intergenic	NA	NA	NA
16461	11	7804134	7804134	G	C	G	S	upstream	OR5P3	NA	NA
16461	11	9563575	9563575	G	C	G	S	exonic	WEE1	silent	NM_003390:p.G465G
16461	11	11934293	11934293	G	T	G	K	exonic	USP47	missense	NM_017944:p.D1287Y
16461	11	17126949	17126949	T	A	T	W	intronic	PIK3C2A	NA	NA
16461	11	21551487	21551487	G	T	G	K	exonic	NELL1	missense	NM_201551:p.V733L
16461	11	22355581	22355581	G	-	T	*/-G	exonic	SLC17A6	FS_del	NM_020346:p.G490fs
16461	11	23457799	23457799	A	T	A	W	intergenic	NA	NA	NA
16461	11	34624855	34624855	G	T	G	K	intronic	EHF	NA	NA
16461	11	36571231	36571231	G	T	G	K	exonic	RAG2	missense	NM_000536:p.T355N
16461	11	46647509	46647509	G	C	G	S	ncRNA	ATG13	NA	NA
16461	11	47729186	47729186	A	C	A	M	intronic	FNBP4	NA	NA
16461	11	47729390	47729390	T	G	T	K	exonic	FNBP4	missense	NM_015308:p.E222D
16461	11	48284924	48284924	A	C	A	M	exonic	OR45I	missense	NM_001004725:p.M192L
16461	11	48956320	48956320	C	-	T	*/-C	intergenic	NA	NA	NA
16461	11	49850210	49850210	A	C	A	M	intergenic	NA	NA	NA
16461	11	49959805	49959805	G	C	G	S	exonic	OR4C12	missense	NM_001005270:p.A270G
16461	11	55015121	55015121	G	T	G	K	intergenic	NA	NA	NA
16461	11	55595275	55595275	C	T	C	Y	intergenic	NA	NA	NA
16461	11	55661538	55661538	G	T	G	K	exonic	OR8J3	missense	NM_001004064:p.A78D
16461	11	55683634	55683634	T	A	T	W	exonic	OR8K5	missense	NM_001004058:p.T246S
16461	11	55900323	55900323	C	G	C	S	exonic	OR8U1	silent	NM_001013356:p.V216V
16461	11	57926579	57926579	C	A	C	M	exonic	OR5B3	nonsense	NM_001005469:p.E294X
16461	11	58031411	58031411	G	C	G	S	exonic	OR5B21	missense	NM_001005218:p.F248L
16461	11	58980858	58980858	G	A	G	R	upstream	OR4D6	NA	NA
16461	11	59387982	59387982	T	G	T	K	exonic	TCN1	missense	NM_001062:p.Q78P
16461	11	60323960	60323960	G	T	G	K	UTR3	MS4A10	NA	NA
16461	11	60397536	60397536	C	A	C	M	exonic	ZP1	silent	NM_207341:p.V451V
16461	11	61010377	61010377	T	A	T	W	intronic	C11orf66	NA	NA
16461	11	62117909	62117909	T	A	T	W	UTR3	MTA2	NA	NA
16461	11	63642165	63642165	-	T	C	*/+T	exonic	FLRT1	FS_ins	NM_013280:p.P617fs
16461	11	63842333	63842333	C	G	C	S	exonic	PRDX5	missense	NM_181652:p.Q24E
16461	11	64426087	64426087	T	C	T	Y	exonic	ATG2A	missense	NM_015104:p.R1348G
16461	11	65251742	65251742	C	A	C	M	intergenic	NA	NA	NA
16461	11	66015639	66015639	C	G	C	S	exonic	DPP3	missense	NM_130443:p.F299L
16461	11	74460155	74460155	C	A	C	M	intergenic	NA	NA	NA
16461	11	74955685	74955685	G	C	G	S	intronic	SERPINH1	NA	NA
16461	11	75852423	75852423	G	A	G	R	intronic	C11orf30	NA	NA
16461	11	77602310	77602310	G	T	G	K	intronic	USP35	NA	NA
16461	11	83933858	83933858	C	A	C	A	intronic	DLG2	NA	NA
16461	11	83934280	83934280	G	T	G	T	intronic	DLG2	NA	NA
16461	11	88772732	88772732	A	T	A	T	ncRNA	NOX4	NA	NA
16461	11	88775234	88775234	G	T	G	T	exonic	NOX4	missense	NM_016931:p.P252T
16461	11	88863289	88863289	G	C	G	C	exonic	NOX4	silent	NM_016931:p.L46L
16461	11	89318948	89318948	C	A	C	M	intergenic	NA	NA	NA
16461	11	101280851	101280851	A	T	A	W	intronic	ANGPTL5	NA	NA
16461	11	107522329	107522329	G	A	G	R	intronic	ACAT1	NA	NA
16461	11	107887533	107887533	T	A	T	W	exonic	EXPH5	missense	NM_015065:p.E1304V
16461	11	113889189	113889189	C	T	C	Y	intergenic	NA	NA	NA
16461	11	114616256	114616256	C	G	C	S	exonic	CADM1	silent	NM_001098517:p.V73V
16461	11	118690452	118690452	G	A	G	R	exonic	MCAM	silent	NM_006500:p.V172V
16461	11	123353389	123353389	G	T	G	K	exonic	OR10S1	missense	NM_001004474:p.H74N
16461	11	124989152	124989152	G	C	G	S	intronic	STT3A	NA	NA
16461	12	4504783	4504783	G	A	G	R	exonic	C12orf4	missense	NM_020374:p.S209L
16461	12	4579257	4579257	C	G	C	S	intronic	DYRK4	NA	NA
16461	12	8699488	8699488	G	T	G	K	intronic	MFAP5	NA	NA
16461	12	9797436	9797436	A	G	A	R	exonic	CD69	missense	NM_001781:p.S170P
16461	12	12868204	12868204	G	C	G	S	exonic	DDX47	missense	NM_016355:p.G295A
16461	12	13420340	13420340	T	C	T	Y	ncRNA	C12orf36	NA	NA
16461	12	15561045	15561045	G	C	G	S	exonic	PTPRO	missense	NM_002848:p.G556A
16461	12	21556459	21556459	G	T	G	K	intronic	GOLT1B	NA	NA
16461	12	21603408	21603408	G	A	G	R	intronic	GYS2	NA	NA
16461	12	32866817	32866817	C	A	C	M	exonic	PKP2	missense	NM_001005242:p.V564L
16461	12	33030871	33030871	G	C	G	S	intergenic	NA	NA	NA

16461	12	38297145	38297145	T	A	T	W	exonic	ABCD2	missense	NM_005164:p.E344D
16461	12	46366981	46366981	G	T	G	K	intronic	RPAP3	NA	NA
16461	12	49358616	49358616	G	T	G	K	intronic	DIP2B	NA	NA
16461	12	49609852	49609852	G	A	G	R	intronic	METTL7A	NA	NA
16461	12	51114381	51114381	G	A	G	R	upstream	KRT75	NA	NA
16461	12	51196747	51196747	C	A	C	M	exonic	KRT5	missense	NM_000424:p.K460N
16461	12	51291109	51291109	G	A	G	R	intronic	KRT73	NA	NA
16461	12	51291110	51291110	G	T	G	K	intronic	KRT73	NA	NA
16461	12	51631877	51631877	G	A	G	R	exonic	KRT18	silent	NM_199187:p.L306L
16461	12	51952848	51952848	G	T	G	K	exonic	ESPL1	silent	NM_012291:p.P482P
16461	12	53081991	53081991	G	T	G	K	intronic	ITGA5	NA	NA
16461	12	53191940	53191940	G	C	G	S	intronic	NCKAP1L	NA	NA
16461	12	56279372	56279372	G	C	G	S	intronic	PIP4K2C	NA	NA
16461	12	60983021	60983021	A	G	A	R	intronic	USP15	NA	NA
16461	12	61830648	61830648	G	T	G	K	exonic	AVPR1A	missense	NM_000706:p.T79K
16461	12	63104652	63104652	G	T	G	K	exonic	XPOT	missense	NM_007235:p.D397Y
16461	12	69342612	69342612	C	T	C	Y	exonic	PTPRR	missense	NM_002849:p.G513E
16461	12	69573056	69573056	A	T	A	W	intronic	PTPRR	NA	NA
16461	12	70236666	70236666	A	G	A	R	splicing	LGR5	silent	NM_003667:p.L215L
16461	12	71343082	71343082	A	T	A	W	intronic	TRHDE	NA	NA
16461	12	75902637	75902637	C	T	C	Y	intergenic	NA	NA	NA
16461	12	81304740	81304740	G	T	G	K	exonic	C12orf26	missense	NM_032230:p.C96F
16461	12	83791303	83791303	G	T	G	K	intronic	SLC6A15	NA	NA
16461	12	87434425	87434425	T	C	T	Y	intronic	KITLG	NA	NA
16461	12	92313363	92313363	G	C	G	S	ncRNA	NUDT4P1	NA	NA
16461	12	94883623	94883623	T	C	T	Y	exonic	AMDHD1	silent	NM_152435:p.L323L
16461	12	99130248	99130248	A	T	A	W	exonic	ACTR6	missense	NM_022496:p.D219V
16461	12	99497673	99497673	G	T	G	K	intronic	GAS2L3	NA	NA
16461	12	100596168	100596168	A	T	A	W	intronic	MYBPC1	NA	NA
16461	12	103183633	103183633	G	T	G	K	intronic	TXNRD1	NA	NA
16461	12	104129148	104129148	C	A	C	M	exonic	APPL2	missense	NM_018171:p.K121N
16461	12	105087976	105087976	G	T	G	K	intergenic	NA	NA	NA
16461	12	109359084	109359084	T	G	T	K	intronic	ARPC3	NA	NA
16461	12	111224150	111224150	G	C	G	S	intronic	C12orf51	NA	NA
16461	12	111330887	111330887	C	G	C	S	intronic	RPL6	NA	NA
16461	12	113510481	113510481	G	C	G	S	intergenic	NA	NA	NA
16461	12	113510803	113510803	A	T	A	W	intergenic	NA	NA	NA
16461	12	113598705	113598705	C	T	C	Y	intronic	TBX3	NA	NA
16461	12	116142342	116142342	A	T	A	W	exonic	NOS1	missense	NM_000620:p.L1364H
16461	12	119919728	119919728	C	A	C	M	exonic	HNF1A	missense	NM_000545:p.Q460K
16461	12	122836293	122836293	C	T	C	Y	exonic	DNAH10	silent	NM_207437:p.P365P
16461	12	122993896	122993896	C	T	C	Y	exonic	CCDC92	silent	NM_025140:p.T44T
16461	12	128260102	128260102	T	G	T	K	exonic	TMEM132D	missense	NM_133448:p.K453N
16461	12	129450369	129450369	G	C	G	S	intronic	RIMBP2	NA	NA
16461	12	131891384	131891384	C	A	C	M	exonic	GOLGA3	missense	NM_005895:p.D530Y
16461	13	18169121	18169121	G	C	G	S	intergenic	NA	NA	NA
16461	13	22803236	22803236	G	A	G	R	exonic	SACS	missense	NM_014363:p.S4260F
16461	13	31876468	31876468	C	T	C	Y	exonic	N4BP2L1	missense	NM_052818:p.E155K
16461	13	32225446	32225446	T	A	T	W	intronic	PDS5B	NA	NA
16461	13	44068178	44068178	G	T	G	K	intergenic	NA	NA	NA
16461	13	44621875	44621875	A	T	A	W	intronic	GTF2F2	NA	NA
16461	13	55472178	55472178	G	A	G	R	intergenic	NA	NA	NA
16461	13	65260247	65260247	C	A	C	M	intergenic	NA	NA	NA
16461	13	74953705	74953705	T	C	T	Y	exonic	TBC1D4	missense	NM_014832:p.Q67R
16461	13	76457426	76457426	A	T	A	W	intergenic	NA	NA	NA
16461	13	80745213	80745213	G	T	G	K	intergenic	NA	NA	NA
16461	13	81162245	81162245	C	A	C	M	intergenic	NA	NA	NA
16461	13	85267386	85267386	C	A	C	M	exonic	SLITRK6	missense	NM_032229:p.G420V
16461	13	87341180	87341180	C	T	C	Y	intergenic	NA	NA	NA
16461	13	95306460	95306460	G	C	G	S	exonic	UGGT2	missense	NM_020121:p.L1321V
16461	13	96437900	96437900	T	A	T	W	exonic	OXGR1	missense	NM_080818:p.I39F
16461	13	100505904	100505904	A	T	A	W	intronic	NALCN	NA	NA
16461	14	19474205	19474205	C	A	C	M	exonic	OR4K1	missense	NM_001004063:p.D180E
16461	14	23690616	23690616	G	T	G	K	exonic	RNF31	missense	NM_017999:p.R607L
16461	14	23690617	23690617	G	T	G	K	exonic	RNF31	silent	NM_017999:p.R607R
16461	14	35420293	35420293	C	G	C	S	intergenic	NA	NA	NA
16461	14	41430737	41430737	C	T	C	Y	exonic	LRFN5	silent	NM_152447:p.S640S
16461	14	56515326	56515326	C	A	C	M	intergenic	NA	NA	NA
16461	14	58860799	58860799	T	A	T	W	intronic	DAAM1	NA	NA
16461	14	59934353	59934353	C	T	C	Y	intergenic	NA	NA	NA
16461	14	63272197	63272197	A	T	A	W	intergenic	NA	NA	NA
16461	14	64137330	64137330	A	G	A	R	intergenic	NA	NA	NA
16461	14	64803138	64803138	C	T	C	Y	intergenic	NA	NA	NA
16461	14	67958484	67958484	C	T	C	Y	intronic	RAD51L1	NA	NA
16461	14	69514388	69514388	G	A	G	R	splicing	SMOC1	missense	NM_022137:p.G160D
16461	14	70513373	70513373	A	G	A	R	intronic	PCNX	NA	NA
16461	14	72729214	72729214	C	T	C	Y	exonic	PSEN1	nonsense	NM_007318:p.R216X
16461	14	74671438	74671438	T	G	T	K	exonic	TMED10	missense	NM_006827:p.Y188S
16461	14	75418848	75418848	G	T	G	K	exonic	TTL5	missense	NM_015072:p.R1197I

16461	14	76562389	76562389	C	A	C	M	exonic	C14orf4	silent	NM_024496:p.L500L
16461	14	80796072	80796072	G	A	G	R	intergenic	NA	NA	NA
16461	14	91209173	91209173	T	C	T	Y	intronic	CATSPERB	NA	NA
16461	14	95207470	95207470	G	T	G	K	ncRNA	TCL6	NA	NA
16461	14	95207471	95207471	G	T	G	K	ncRNA	TCL6	NA	NA
16461	14	95826750	95826750	T	C	T	Y	intronic	ATG2B	NA	NA
16461	14	98994279	98994279	A	G	A	R	intronic	SETD3	NA	NA
16461	14	99798580	99798580	C	G	C	S	intronic	YY1	NA	NA
16461	14	101537217	101537217	T	A	T	W	intronic	DYNC1H1	NA	NA
16461	14	101620547	101620547	C	T	C	Y	exonic	HSP90AA1	silent	NM_001017963:p.L485L
16461	15	20809740	20809740	C	A	C	M	ncRNA	GOLGA8IP	NA	NA
16461	15	20809741	20809741	C	A	C	M	ncRNA	GOLGA8IP	NA	NA
16461	15	21240723	21240723	C	A	C	M	intergenic	NA	NA	NA
16461	15	23030637	23030637	G	T	G	K	downstream	SNORD115-3	NA	NA
16461	15	26184426	26184426	T	A	T	W	exonic	HERC2	missense	NM_004667:p.K601N
16461	15	27313484	27313484	G	A	G	R	intronic	FAM189A1	NA	NA
16461	15	33317055	33317055	C	G	C	S	ncRNA	LOC723972	NA	NA
16461	15	38041418	38041418	A	G	A	R	intronic	EIF2AK4	NA	NA
16461	15	47051742	47051742	C	A	C	M	intergenic	NA	NA	NA
16461	15	55143322	55143322	G	A	G	R	intronic	TCF12	NA	NA
16461	15	55794084	55794084	G	C	G	S	exonic	GCOM1	missense	NM_001018090:p.R523P
16461	15	57950949	57950949	A	G	A	R	intergenic	NA	NA	NA
16461	15	62293196	62293196	T	A	T	W	exonic	CSNK1G1	nonsense	NM_022048:p.K209X
16461	15	63281206	63281206	G	A	G	R	intronic	CILP	NA	NA
16461	15	63473872	63473872	C	A	C	M	exonic	IGDCC4	silent	NM_020962:p.L548L
16461	15	65912577	65912577	C	A	C	M	intronic	SKOR1	NA	NA
16461	15	70478040	70478040	C	A	C	M	intronic	TMEM202	NA	NA
16461	15	71965957	71965957	G	C	G	S	exonic	TBC1D21	missense	NM_153356:p.C243S
16461	15	78988632	78988632	A	G	A	R	exonic	KIAA1199	missense	NM_018689:p.Y576C
16461	15	82572570	82572570	C	G	C	S	ncRNA	LOC648809	NA	NA
16461	16	3718599	3718599	C	T	C	Y	exonic	CREBBP	silent	NM_004380:p.P2150P
16461	16	4812979	4812979	A	C	A	M	intronic	GLYR1	NA	NA
16461	16	10896920	10896920	C	T	C	Y	intronic	CIITA	NA	NA
16461	16	16080743	16080743	G	T	G	K	exonic	ABCC1	silent	NM_004996:p.V674V
16461	16	19566654	19566654	G	T	G	K	exonic	C16orf62	missense	NM_020314:p.E748D
16461	16	21044014	21044014	G	C	G	S	exonic	DNAH3	missense	NM_017539:p.L463V
16461	16	21180114	21180114	G	C	G	S	exonic	CRYM	missense	NM_001888:p.P281R
16461	16	24073532	24073532	A	G	A	R	exonic	PRKCB	silent	NM_002738:p.T364T
16461	16	24280320	24280320	G	T	G	K	exonic	CACNG3	missense	NM_006539:p.V195F
16461	16	24487776	24487776	G	T	G	K	exonic	RBBP6	missense	NM_018703:p.R721L
16461	16	24488971	24488971	A	G	A	R	exonic	RBBP6	silent	NM_018703:p.E1119E
16461	16	24708867	24708867	G	C	G	S	exonic	TNRC6A	missense	NM_014494:p.G468A
16461	16	28310695	28310695	C	A	C	M	intronic	EIF3C	NA	NA
16461	16	30013604	30013604	G	A	C	R	intronic	YPEL3	NA	NA
16461	16	30981095	30981095	T	A	T	W	exonic	ZNF668	missense	NM_001172669:p.T242S
16461	16	33857764	33857764	C	T	C	Y	intergenic	NA	NA	NA
16461	16	34184533	34184533	G	T	G	K	intergenic	NA	NA	NA
16461	16	44974995	44974995	A	G	A	R	intergenic	NA	NA	NA
16461	16	46679979	46679979	C	A	C	M	exonic	ABCC12	silent	NM_033226:p.G1151G
16461	16	46680023	46680023	G	T	G	K	exonic	ABCC12	missense	NM_033226:p.L1137I
16461	16	60318499	60318499	T	A	T	W	splicing	CDH8	missense	NM_001796:p.Q512H
16461	16	66937772	66937772	G	A	G	R	intronic	PRMT7	NA	NA
16461	16	69512218	69512218	G	A	G	R	exonic	HYDIN	missense	NM_032821:p.T2520M
16461	16	69660817	69660817	G	T	G	K	exonic	HYDIN	missense	NM_001198542:p.H637N
16461	16	73100338	73100338	G	A	G	R	ncRNA	GLG1	NA	NA
16461	16	73123592	73123594	AAT	-	A	*/-AAT	ncRNA	GLG1	NA	NA
16461	17	3734003	3734003	C	A	C	M	intronic	CAMKK1	NA	NA
16461	17	3926815	3926815	G	A	G	R	intronic	ZZEF1	NA	NA
16461	17	6369402	6369402	T	C	T	Y	exonic	PITPNM3	missense	NM_031220:p.Q75R
16461	17	6624493	6624493	G	T	G	K	exonic	FBXO39	silent	NM_153230:p.V194V
16461	17	7416815	7416815	G	T	G	K	UTR5	EIF4A1	NA	NA
16461	17	7519186	7519186	C	A	C	M	exonic	TP53	missense	NM_001126117:p.V25F
16461	17	10256463	10256463	G	T	G	K	exonic	MYH8	silent	NM_002472:p.P455P
16461	17	10295013	10295013	T	C	T	Y	intronic	MYH4	NA	NA
16461	17	10348779	10348779	T	C	T	Y	intronic	MYH1	NA	NA
16461	17	11534021	11534021	G	T	G	K	exonic	DNAH9	missense	NM_001372:p.W1386L
16461	17	12596746	12596746	G	A	G	R	exonic	MYOCD	silent	NM_153604:p.P472P
16461	17	16528135	16528135	C	G	C	S	intergenic	NA	NA	NA
16461	17	18016160	18016160	C	T	C	Y	intronic	MYO15A	NA	NA
16461	17	18579393	18579393	C	T	C	Y	exonic	TRIM16L	silent	NM_001037330:p.V314V
16461	17	20219793	20219793	G	T	G	K	ncRNA	CCDC144C	NA	NA
16461	17	22185400	22185400	C	G	C	S	intergenic	NA	NA	NA
16461	17	23991079	23991079	T	C	T	Y	exonic	KIAA0100	missense	NM_014680:p.M328V
16461	17	24033061	24033061	G	T	G	K	exonic	SUPT6H	missense	NM_003170:p.R511S
16461	17	24034432	24034432	A	T	A	W	exonic	SUPT6H	missense	NM_003170:p.Y633F
16461	17	25536618	25536618	G	C	G	S	exonic	CCDC55	missense	NM_032141:p.E493Q
16461	17	26327134	26327134	T	A	T	W	ncRNA	DPRXP4	NA	NA
16461	17	27825015	27825015	G	A	G	R	exonic	PSMD11	missense	NM_002815:p.D243N
16461	17	29390600	29390600	A	T	A	W	intronic	ACCN1	NA	NA



16461	17	31185101	31185101	A	G	A	R	intronic	TAF15	NA	NA
16461	17	32631619	32631619	G	A	G	R	intronic	ACACA	NA	NA
16461	17	35849522	35849522	G	A	G	R	intergenic	NA	NA	NA
16461	17	39691226	39691226	T	A	T	W	intronic	SLC4A1	NA	NA
16461	17	41472197	41472197	G	A	G	R	intronic	KIAA1267	NA	NA
16461	17	43093480	43093480	A	G	A	R	intronic	KPNB1	NA	NA
16461	17	46178309	46178309	G	T	G	K	exonic	LUC7L3	missense	NM_006107:p.C308F
16461	17	53710397	53710397	C	T	C	Y	exonic	MPO	missense	NM_000250:p.A332T
16461	17	55206031	55206031	A	T	A	W	intronic	TMEM49	NA	NA
16461	17	55491720	55491720	C	A	C	M	intronic	HEATR6	NA	NA
16461	17	57023200	57023200	C	A	C	M	exonic	NACA2	missense	NM_199290:p.D42Y
16461	17	57385144	57385144	T	A	T	W	exonic	MED13	silent	NM_005121:p.P2027P
16461	17	59303650	59303650	C	A	C	M	exonic	CSH2	missense	NM_022644:p.V159F
16461	17	59580000	59580000	G	C	G	S	UTR3	TEX2	NA	NA
16461	17	59930000	59930000	C	T	C	Y	intronic	DDX5	NA	NA
16461	17	60241598	60241598	C	A	C	M	ncRNA	PLEKHM1P	NA	NA
16461	17	60287476	60287476	C	T	C	Y	exonic	LRRC37A3	missense	NM_199340:p.E1084K
16461	17	60630798	60630798	G	T	G	K	exonic	RGS9	missense	NM_001081955:p.D371Y
16461	17	63164444	63164444	G	T	G	K	exonic	NOL11	nonsense	NM_015462:p.E475X
16461	17	64063271	64063271	C	A	C	M	ncRNA	FAM20A	NA	NA
16461	17	64425087	64425087	G	C	G	S	intronic	ABCA8	NA	NA
16461	17	64503782	64503782	A	T	A	W	intronic	ABCA9	NA	NA
16461	17	64595099	64595099	A	T	A	W	exonic	ABCA6	missense	NM_080284:p.I1270N
16461	17	64763274	64763274	C	G	C	S	intronic	ABCA5	NA	NA
16461	17	68670906	68670906	C	A	C	M	intergenic	NA	NA	NA
16461	18	325206	325206	C	T	C	Y	exonic	COLEC12	missense	NM_130386:p.R451K
16461	18	1353228	1353228	A	T	A	W	intergenic	NA	NA	NA
16461	18	7030175	7030175	C	T	C	Y	exonic	LAMA1	missense	NM_005559:p.C441Y
16461	18	10614244	10614244	G	C	G	S	intergenic	NA	NA	NA
16461	18	14514972	14514972	T	A	T	W	exonic	POTEC	missense	NM_001137671:p.L379F
16461	18	14515086	14515086	T	A	T	W	intronic	POTEC	NA	NA
16461	18	14744947	14744947	C	A	C	M	exonic	ANKRD30B	missense	NM_001145029:p.T187N
16461	18	20151119	20151119	C	A	C	M	exonic	OSBPL1A	missense	NM_080597:p.V288L
16461	18	20264297	20264297	A	T	A	W	exonic	IMPACT	nonsense	NM_018439:p.K78X
16461	18	21060333	21060333	G	A	G	R	exonic	ZNF521	missense	NM_015461:p.P516L
16461	18	22786215	22786215	C	A	C	M	intronic	CHST9	NA	NA
16461	18	27352199	27352199	G	C	G	S	splicing	DSG2	NA	NA
16461	18	32552540	32552540	G	C	G	S	exonic	FHOD3	missense	NM_025135:p.R919P
16461	18	37871739	37871739	G	T	G	K	exonic	PIK3C3	missense	NM_002647:p.R642L
16461	18	40155159	40155159	C	G	C	S	intergenic	NA	NA	NA
16461	18	40784483	40784483	G	C	G	S	exonic	SETBP1	missense	NM_015559:p.E394Q
16461	18	45362743	45362743	G	T	G	K	exonic	LIPG	missense	NM_006033:p.Q350H
16461	18	45820604	45820604	C	G	C	S	exonic	MYO5B	missense	NM_001080467:p.D73H
16461	18	49230869	49230869	G	A	G	R	splicing	DCC	silent	NM_005215:p.E1077E
16461	18	49267252	49267252	C	A	C	M	exonic	DCC	missense	NM_005215:p.P1275Q
16461	18	53175392	53175392	T	A	T	W	exonic	ST8SIA3	missense	NM_015879:p.F185I
16461	18	54986817	54986817	C	T	C	Y	intergenic	NA	NA	NA
16461	18	55596844	55596844	A	C	C	M	intergenic	NA	NA	NA
16461	18	55789325	55789325	C	A	C	M	intergenic	NA	NA	NA
16461	18	57318660	57318660	G	T	G	K	exonic	CDH20	missense	NM_031891:p.R202S
16461	18	66014940	66014940	T	A	T	W	intronic	RTTN	NA	NA
16461	18	70374733	70374733	T	A	T	W	intronic	CNDP1	NA	NA
16461	19	1779147	1779147	C	G	C	S	exonic	REXO1	missense	NM_020695:p.R214P
16461	19	4122691	4122691	G	T	G	K	exonic	CREB3L3	missense	NM_032607:p.V371L
16461	19	4202096	4202096	A	A	G	R	exonic	CDC94	silent	NM_018074:p.E66E
16461	19	11005877	11005877	G	A	G	R	splicing	SMARCA4	NA	NA
16461	19	11148251	11148251	G	A	G	R	intronic	KANK2	NA	NA
16461	19	15746134	15746134	G	T	G	K	ncRNA	CYP4F24P	NA	NA
16461	19	19683442	19683442	C	T	C	Y	exonic	ZNF14	missense	NM_021030:p.E550K
16461	19	20781706	20781706	G	T	G	K	intergenic	NA	NA	NA
16461	19	22113057	22113057	G	C	G	S	intergenic	NA	NA	NA
16461	19	23628883	23628883	T	G	T	K	exonic	ZNF675	missense	NM_138330:p.Q231P
16461	19	35000105	35000105	A	T	A	W	intronic	CCNE1	NA	NA
16461	19	38543598	38543598	T	C	T	Y	intergenic	NA	NA	NA
16461	19	40445307	40445307	T	G	T	K	exonic	LSR	missense	NM_205834:p.V265G
16461	19	41024992	41024992	A	C	A	M	exonic	NPHS1	missense	NM_004646:p.L846R
16461	19	41054310	41054310	C	T	C	Y	intronic	APLP1	NA	NA
16461	19	47258826	47258826	C	A	C	M	exonic	GRIK5	missense	NM_002088:p.G89V
16461	19	51524411	51524411	G	A	G	R	exonic	HIF3A	silent	NM_022462:p.L460L
16461	19	52277392	52277392	C	G	C	S	splicing	ZC3H4	missense	NM_015168:p.G407R
16461	19	54093046	54093046	T	G	T	K	intronic	TULP2	NA	NA
16461	19	59194692	59194692	G	T	G	K	intronic	CACNG6	NA	NA
16461	19	59501013	59501013	C	T	C	Y	intergenic	NA	NA	NA
16461	19	60389558	60389558	C	A	C	M	intronic	PTPRH	NA	NA
16461	19	61447241	61447241	C	T	C	Y	intergenic	NA	NA	NA
16461	19	61752218	61752218	A	C	A	M	exonic	ZFP28	silent	NM_020828:p.I201I
16461	19	63249339	63249339	G	T	G	K	intronic	ZSCAN1	NA	NA
16461	19	63542369	63542369	G	C	G	S	exonic	ZSCAN22	missense	NM_181846:p.Q447H
16461	20	1462476	1462476	G	T	G	K	downstream	SIRPD	NA	NA

16461	20	1863342	1863342	G	T	G	K	intronic	SIRPA	NA	NA
16461	20	2589617	2589617	T	C	T	Y	splicing	IDH3B	NA	NA
16461	20	5117719	5117719	G	T	G	K	exonic	CDS2	missense	NM_003818:p.V330F
16461	20	5959889	5959889	C	G	C	S	intronic	CRLS1	NA	NA
16461	20	8667968	8667968	A	G	A	R	exonic	PLCB1	missense	NM_182734:p.I757V
16461	20	16440125	16440125	T	G	T	K	exonic	KIF16B	missense	NM_001199865:p.K165T
16461	20	18433507	18433507	G	C	G	S	intergenic	NA	NA	NA
16461	20	23306121	23306121	C	T	C	Y	exonic	NAPB	silent	NM_022080:p.V263V
16461	20	23514052	23514052	C	T	C	Y	intergenic	NA	NA	NA
16461	20	28217416	28217416	G	A	G	R	intergenic	NA	NA	NA
16461	20	33922483	33922483	G	C	G	S	intronic	PHF20	NA	NA
16461	20	34306960	34306960	G	T	G	K	exonic	C20orf4	missense	NM_015511:p.R345I
16461	20	34493951	34493951	C	A	C	M	exonic	DLGAP4	silent	NM_014902:p.I139I
16461	20	34493952	34493952	C	A	C	M	exonic	DLGAP4	missense	NM_014902:p.R140S
16461	20	43315658	43315658	G	T	G	K	exonic	SLPI	nonsense	NM_003064:p.C72X
16461	20	43886464	43886464	A	T	A	W	intronic	TNNC2	NA	NA
16461	20	46565201	46565201	C	A	C	M	intergenic	NA	NA	NA
16461	20	48964036	48964036	C	A	C	M	intronic	ADNP	NA	NA
16461	20	60553909	60553909	C	G	C	S	ncRNA	C20orf200	NA	NA
16461	21	9738355	9738355	G	A	G	R	intergenic	NA	NA	NA
16461	21	10062595	10062595	C	T	C	Y	intronic	BAGE2	NA	NA
16461	21	21704508	21704508	G	C	G	S	exonic	NCAM2	missense	NM_004540:p.W413C
16461	21	33805610	33805610	C	A	C	M	exonic	GART	missense	NM_000819:p.R711S
16461	21	33848274	33848274	G	T	G	K	exonic	SON	missense	NM_138927:p.V1623F
16461	21	36542725	36542725	A	T	A	W	exonic	DOPEY2	nonsense	NM_005128:p.K1663X
16461	21	36755741	36755741	G	T	G	K	exonic	CLDN14	silent	NM_001146078:p.L41L
16461	21	37288901	37288901	G	T	G	K	intergenic	NA	NA	NA
16461	21	37361501	37361501	C	T	C	Y	exonic	PIGP	missense	NM_153681:p.G93S
16461	21	39756230	39756230	G	T	G	K	exonic	SH3BGR	missense	NM_007341:p.K98N
16461	21	43297484	43297484	T	C	T	Y	intronic	PKNOX1	NA	NA
16461	21	46905113	46905113	G	T	G	K	intronic	PRMT2	NA	NA
16461	22	15452024	15452024	C	T	C	Y	exonic	CCT8L2	missense	NM_014406:p.G473S
16461	22	15668864	15668864	G	T	G	K	exonic	XKR3	missense	NM_175878:p.P34T
16461	22	20644762	20644762	C	A	C	M	exonic	TOP3B	missense	NM_003935:p.V529L
16461	22	22789466	22789466	G	T	G	K	exonic	CABIN1	nonsense	NM_001201429:p.G531X
16461	22	25356230	25356230	G	T	G	K	intronic	CRYBA4	NA	NA
16461	22	29251748	29251748	A	C	A	M	intronic	LOC730005	NA	NA
16461	22	29882635	29882635	T	C	T	Y	intergenic	NA	NA	NA
16461	22	30053135	30053135	C	A	C	M	exonic	PATZ1	missense	NM_032050:p.E556D
16461	22	35601683	35601683	G	A	G	R	exonic	NCF4	missense	NM_000631:p.V224M
16461	22	38240008	38240008	G	T	G	K	exonic	SMCR7L	missense	NM_019008:p.A376S
16461	22	39144993	39144993	C	A	C	M	exonic	MKL1	silent	NM_020831:p.T465T
16461	22	40303327	40303327	G	C	G	S	exonic	PMM1	missense	NM_002676:p.Q244E
16461	22	42396122	42396122	G	C	G	S	exonic	EFCAB6	missense	NM_198856:p.Q441E
16461	X	2877653	2877653	G	A	G	R	exonic	ARSE	silent	NM_000047:p.A182A
16461	X	9331684	9331684	G	C	G	S	intergenic	NA	NA	NA
16461	X	12646460	12646460	G	T	G	K	exonic	FRMPD4	silent	NM_014728:p.R1198R
16461	X	12727218	12727218	A	T	A	W	intronic	PRPS2	NA	NA
16461	X	13664642	13664642	C	T	C	Y	exonic	OFD1	missense	NM_003611:p.A79V
16461	X	16403381	16403381	C	A	C	M	intergenic	NA	NA	NA
16461	X	27908371	27908371	T	A	C	T	exonic	DCAF8L1	missense	NM_001017930:p.K334N
16461	X	36938425	36938425	G	C	G	S	exonic	FAM47C	missense	NM_001013736:p.G674A
16461	X	38125576	38125576	C	T	C	Y	exonic	OTC	silent	NM_000531:p.T112T
16461	X	48342977	48342977	G	T	G	K	exonic	WDR13	missense	NM_017883:p.D151Y
16461	X	48710599	48710599	T	A	T	W	exonic	KCND1	missense	NM_004979:p.T342S
16461	X	48955625	48955625	G	T	G	T	intronic	CACNA1F	NA	NA
16461	X	49284778	49284778	C	T	C	Y	intergenic	NA	NA	NA
16461	X	50356485	50356485	G	T	G	K	exonic	SHROOM4	missense	NM_020717:p.Q1478K
16461	X	64665739	64665739	C	A	C	A	intronic	LAS1L	NA	NA
16461	X	65211709	65211709	C	A	C	M	intergenic	NA	NA	NA
16461	X	70065444	70065444	A	G	A	R	exonic	SLC7A3	silent	NM_032803:p.A168A
16461	X	71864782	71864782	G	T	G	K	intergenic	NA	NA	NA
16461	X	77041659	77041659	G	A	G	R	UTR5	COX7B	NA	NA
16461	X	77799705	77799705	C	A	C	M	exonic	ZCCHC5	missense	NM_152694:p.W290L
16461	X	77799712	77799712	C	A	C	M	exonic	ZCCHC5	nonsense	NM_152694:p.G288X
16461	X	91020657	91020657	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.W921L
16461	X	101688473	101688473	G	A	G	R	intergenic	NA	NA	NA
16461	X	102229085	102229085	T	A	T	W	intronic	NXF3	NA	NA
16461	X	106218548	106218548	G	A	G	R	exonic	RBM41	missense	NM_018301:p.S234L
16461	X	109584984	109584984	C	A	C	M	intronic	RGAG1	NA	NA
16461	X	116938320	116938320	C	G	C	S	exonic	KLHL13	silent	NM_033495:p.V94V
16461	X	118655087	118655087	T	A	T	W	exonic	6-Sep	missense	NM_015129:p.E296V
16461	X	120165601	120165601	C	T	C	Y	intergenic	NA	NA	NA
16461	X	125513264	125513264	C	T	C	Y	exonic	DCAF12L1	missense	NM_178470:p.D337N
16461	X	136570854	136570854	G	T	G	K	intergenic	NA	NA	NA
16461	X	138357289	138357289	T	G	T	K	ncRNA	SRD5A1P1	NA	NA
16461	X	146825743	146825743	G	C	G	S	exonic	FMR1	silent	NM_001185076:p.L303L
16461	Y	10602141	10602141	T	C	T	Y	intergenic	NA	NA	NA
16461	Y	11701756	11701756	A	G	A	R	intergenic	NA	NA	NA

16461	Y	27098471	27098471	T	C	T	Y	intergenic	NA	NA	NA
16461	Y	27226416	27226416	A	T	A	W	intergenic	NA	NA	NA
16461	Y	57392535	57392535	C	G	C	S	intergenic	NA	NA	NA
16617	1	32430800	32430800	C	T	C	Y	intronic	TXLNA	NA	NA
16617	1	37812682	37812682	G	C	G	S	intronic	GNL2	NA	NA
16617	1	41821668	41821668	T	G	T	K	exonic	HIVEP3	missense	NM_001127714:p.E463A
16617	1	47173858	47173858	G	A	G	R	exonic	CYP4A11	nonsense	NM_000778:p.Q187X
16617	1	70769120	70769120	G	T	G	K	intergenic	NA	NA	NA
16617	1	100406606	100406606	C	T	C	Y	exonic	LRRC39	missense	NM_144620:p.E19K
16617	1	103236488	103236488	C	A	C	M	exonic	COL11A1	missense	NM_001854:p.G721V
16617	1	141482698	141482698	G	C	G	S	intergenic	NA	NA	NA
16617	1	142292946	142292946	A	T	A	W	intergenic	NA	NA	NA
16617	1	142356015	142356015	G	T	G	K	intergenic	NA	NA	NA
16617	1	142356032	142356032	A	T	A	W	intergenic	NA	NA	NA
16617	1	143241086	143241086	T	A	T	W	intergenic	NA	NA	NA
16617	1	156565858	156565858	T	A	T	W	exonic	CD1B	missense	NM_001764:p.D271V
16617	1	156657089	156657089	G	A	G	R	exonic	OR10K2	silent	NM_001004476:p.A64A
16617	1	156881950	156881950	C	T	C	Y	exonic	SPTA1	missense	NM_003126:p.E1319K
16617	1	166536383	166536383	C	T	C	Y	intronic	TBX19	NA	NA
16617	1	174975854	174975854	C	G	C	S	exonic	PAPPA2	silent	NM_020318:p.V1350V
16617	1	184548621	184548621	C	T	C	Y	exonic	PRG4	silent	NM_001127708:p.D1322D
16617	1	195337089	195337089	T	A	T	W	exonic	ASPM	nonsense	NM_018136:p.K2639X
16617	1	198281307	198281307	A	G	A	R	exonic	NR5A2	silent	NM_205860:p.K145K
16617	1	218377954	218377954	C	T	C	Y	exonic	IARS2	silent	NM_018060:p.T707T
16617	1	245460412	245460412	T	C	T	Y	intergenic	NA	NA	NA
16617	2	11307258	11307258	T	C	T	Y	exonic	ROCK2	missense	NM_004850:p.N148D
16617	2	27276840	27276840	A	C	A	M	exonic	SLC5A6	missense	NM_021095:p.S626A
16617	2	32280301	32280301	C	T	C	Y	intronic	SLC30A6	NA	NA
16617	2	48439760	48439760	A	T	A	W	exonic	FOXN2	missense	NM_002158:p.K203M
16617	2	58215900	58215900	T	C	T	Y	ncRNA	VRK2	NA	NA
16617	2	85835517	85835517	A	G	A	R	exonic	ATOH8	missense	NM_032827:p.R232G
16617	2	88206719	88206719	G	T	G	K	intronic	FABP1	NA	NA
16617	2	91434890	91434890	T	G	T	K	intergenic	NA	NA	NA
16617	2	100947066	100947066	T	A	T	W	exonic	NPAS2	nonsense	NM_002518:p.L238X
16617	2	131131028	131131028	G	A	G	R	intergenic	NA	NA	NA
16617	2	132791339	132791339	G	T	G	K	intergenic	NA	NA	NA
16617	2	136105909	136105909	G	C	G	S	exonic	R3HDM1	missense	NM_015361:p.R189P
16617	2	144873038	144873038	G	C	G	S	exonic	ZEB2	missense	NM_014795:p.P729R
16617	2	202406943	202406943	A	G	A	R	intronic	CDK15	NA	NA
16617	2	211164895	211164895	G	T	G	K	exonic	CPS1	missense	NM_001122633:p.G354V
16617	3	12856778	12856778	C	T	C	Y	UTR5	RPL32	NA	NA
16617	3	23087960	23087960	C	G	C	S	intergenic	NA	NA	NA
16617	3	99334527	99334527	T	C	T	Y	exonic	OR5H1	missense	NM_001005338:p.I99T
16617	3	102446147	102446147	G	A	G	R	exonic	IMPG2	missense	NM_016247:p.T573I
16617	3	140148040	140148055	TCCGCG CTCTCG CGGA	- - CGGA	C	*/- TCCGCGCTC TCCGCGGA	exonic	FOXL2	FS_del	NM_023067:p.67_72del
16617	3	147271793	147271793	T	A	T	W	exonic	PLOD2	silent	NM_182943:p.A652A
16617	3	168665965	168665965	T	A	T	W	exonic	SERPINI2	missense	NM_006217:p.K223N
16617	3	196880470	196880470	A	T	A	W	ncRNA	SDHAP2	NA	NA
16617	4	55676044	55676044	T	A	T	W	intronic	KDR	NA	NA
16617	4	83566334	83566334	A	T	A	W	ncRNA	HNRPDL	NA	NA
16617	4	121835700	121835700	T	A	T	W	UTR3	PRDM5	NA	NA
16617	4	124166020	124166020	A	G	A	R	intronic	SPATA5	NA	NA
16617	4	163174261	163174261	C	A	C	M	splicing	FSTL5	NA	NA
16617	4	176793270	176793270	G	A	G	R	intronic	GPM6A	NA	NA
16617	5	1625275	1625275	A	G	A	R	ncRNA	SDHAP3	NA	NA
16617	5	10455101	10455119	TAATAT GGGAAA ACCGGG G	- - - G	T	*/- TAATATGG GAAAACCG GGG	intronic	6-Mar	NA	NA
16617	5	29038322	29038322	C	T	C	Y	intergenic	NA	NA	NA
16617	5	36147118	36147118	C	A	C	M	splicing	LMBRD2	NA	NA
16617	5	50156603	50156603	A	G	A	R	intronic	PARP8	NA	NA
16617	5	56650202	56650202	A	C	A	M	intergenic	NA	NA	NA
16617	5	96258427	96258427	T	A	T	W	intronic	ERAP2	NA	NA
16617	5	102277530	102277530	G	C	G	S	ncRNA	PAM	NA	NA
16617	5	133320373	133320373	-	C	A	*/+C	UTR3	C5orf15	NA	NA
16617	5	133320374	133320374	T	G	T	K	UTR3	C5orf15	NA	NA
16617	6	30274486	30274486	C	A	C	M	exonic	TRIM26	missense	NM_003449:p.R125L
16617	6	31791140	31791140	T	C	T	Y	exonic	LY6G6D	missense	NM_021246:p.L10P
16617	6	46785140	46785140	T	G	T	K	intronic	PLA2G7	NA	NA
16617	6	46942841	46942841	G	C	G	S	intronic	GPR116	NA	NA
16617	6	51510127	51510127	G	C	G	S	intergenic	NA	NA	NA
16617	6	88051226	88051226	G	C	G	S	exonic	GJB7	missense	NM_198568:p.H42D
16617	6	108325572	108325572	C	T	C	Y	exonic	SEC63	missense	NM_007214:p.V472I
16617	6	110863771	110863771	A	G	A	R	exonic	SLC22A16	silent	NM_033125:p.A466A
16617	6	126122542	126122542	G	A	G	R	exonic	HEY2	silent	NM_012259:p.P305P

16617	6	130412550	130412550	A	T	A	W	intronic	L3MBTL3	NA	NA
16617	6	132659937	132659937	G	A	G	R	UTR3	MOXD1	NA	NA
16617	6	133873277	133873277	A	-	T	*-/A	intronic	EYA4	NA	NA
16617	6	144220906	144220906	G	T	G	K	intronic	LTV1	NA	NA
16617	6	155195790	155195790	C	T	C	Y	exonic	SCAF8	nonsense	NM_014892:p.R1129X
16617	7	8061515	8061515	A	G	A	R	intronic	GLCC1	NA	NA
16617	7	15391497	15391497	C	A	C	M	intronic	AGMO	NA	NA
16617	7	21226861	21226861	T	C	T	Y	intergenic	NA	NA	NA
16617	7	44128255	44128255	C	T	C	Y	UTR5	POLD2	NA	NA
16617	7	47665246	47665246	A	G	A	R	exonic	C7orf65	silent	NM_001123065:p.L117L
16617	7	56632986	56632986	G	A	G	R	intergenic	NA	NA	NA
16617	7	61463276	61463276	G	A	G	R	intergenic	NA	NA	NA
16617	7	72735092	72735092	C	G	C	S	exonic	DNAJC30	missense	NM_032317:p.G200R
16617	7	81473027	81473027	G	A	G	R	exonic	CACNA2D1	missense	NM_000722:p.P502L
16617	7	93876622	93876622	G	T	G	K	exonic	COL1A2	missense	NM_000089:p.R282L
16617	7	106297104	106297104	C	A	C	M	exonic	PIK3CG	missense	NM_002649:p.A621D
16617	7	107610338	107610338	G	A	G	R	intronic	NRCAM	NA	NA
16617	7	137739663	137739663	G	A	G	R	intergenic	NA	NA	NA
16617	7	158517301	158517301	G	A	G	R	exonic	VIPR2	silent	NM_003382:p.L374L
16617	8	51837506	51837506	G	A	G	R	intronic	SNTG1	NA	NA
16617	8	95243463	95243463	A	G	A	R	intronic	CDH17	NA	NA
16617	8	107779173	107779173	C	G	C	S	intronic	OXR1	NA	NA
16617	8	108403416	108403416	T	C	T	Y	exonic	ANGPT1	missense	NM_001199859:p.Q231R
16617	9	4771630	4771630	C	T	C	Y	intergenic	NA	NA	NA
16617	9	13112126	13112126	C	A	C	M	exonic	MPDZ	missense	NM_003829:p.C1666F
16617	9	15715032	15715032	A	C	A	M	intronic	C9orf93	NA	NA
16617	9	67806089	67806089	G	T	G	K	intergenic	NA	NA	NA
16617	9	67907336	67907336	C	T	C	Y	intergenic	NA	NA	NA
16617	9	67908186	67908186	A	G	A	R	intergenic	NA	NA	NA
16617	9	67914279	67914279	C	G	C	S	intergenic	NA	NA	NA
16617	9	67915331	67915331	A	T	A	W	intergenic	NA	NA	NA
16617	9	85448342	85448342	A	T	A	W	exonic	C9orf103	missense	NM_001001551:p.I131F
16617	9	89687793	89687793	G	T	G	K	exonic	C9orf79	missense	NM_178828:p.W56L
16617	9	127737658	127737658	A	T	A	W	exonic	PBX3	missense	NM_001134778:p.E190V
16617	10	24842169	24842169	G	A	G	R	intronic	KIAA1217	NA	NA
16617	10	28937067	28937067	G	T	G	K	ncRNA	WAC	NA	NA
16617	10	42066487	42066487	G	T	G	K	intergenic	NA	NA	NA
16617	10	42066488	42066488	G	T	G	K	intergenic	NA	NA	NA
16617	10	45227591	45227591	G	A	G	R	intronic	ALOX5	NA	NA
16617	10	49056122	49056122	C	T	C	Y	exonic	FRMPD2	missense	NM_001018071:p.D957N
16617	10	59824794	59824794	G	T	G	K	exonic	TFAM	missense	NM_003201:p.R232L
16617	10	68649635	68649635	C	A	C	M	splicing	CTNNA3	NA	NA
16617	10	114891046	114891046	C	T	C	Y	exonic	TCF7L2	silent	NM_001146286:p.A199A
16617	10	127833864	127833864	T	A	T	W	splicing	ADAM12	missense	NM_021641:p.E87D
16617	10	135008415	135008415	A	C	A	M	intergenic	NA	NA	NA
16617	11	2996954	2996954	T	G	T	K	exonic	CARS	silent	NM_139273:p.A379A
16617	11	5419293	5419293	G	T	G	K	exonic	OR5111	missense	NM_001005288:p.Q10K
16617	11	18849880	18849880	A	T	A	W	intergenic	NA	NA	NA
16617	11	54867993	54867993	C	A	C	M	exonic	OR4A16	silent	NM_001005274:p.L247L
16617	11	56267559	56267559	G	A	G	R	exonic	OR9G4	missense	NM_001005284:p.S102L
16617	11	57183674	57183674	C	T	C	Y	exonic	CLP1	silent	NM_001142597:p.T50T
16617	11	108316485	108316485	G	T	G	K	UTR3	DDX10	NA	NA
16617	11	123316376	123316376	G	C	G	S	exonic	OR4D5	missense	NM_001001965:p.M281I
16617	11	127316546	127316546	C	T	C	Y	intergenic	NA	NA	NA
16617	12	28608837	28608837	A	G	A	R	intergenic	NA	NA	NA
16617	12	75776809	75776809	G	T	G	K	UTR3	CSRP2	NA	NA
16617	12	78362338	78362338	G	C	G	S	intronic	SYT1	NA	NA
16617	12	94953474	94953474	A	G	A	R	UTR5	LTA4H	NA	NA
16617	12	101812828	101812828	T	-	C	*-/T	splicing	PAH	NA	NA
16617	12	102646776	102646776	A	C	A	M	exonic	STAB2	missense	NM_017564:p.Y1652S
16617	12	118117202	118117202	G	A	G	R	downstream	HSPB8	NA	NA
16617	13	18138706	18138706	C	G	C	S	intergenic	NA	NA	NA
16617	13	25002190	25002190	T	A	T	W	exonic	ATP8A2	missense	NM_016529:p.I92N
16617	13	52522488	52522488	C	G	C	S	exonic	OLFM4	missense	NM_006418:p.R372G
16617	13	66739094	66739094	C	G	C	S	intergenic	NA	NA	NA
16617	13	74710831	74710831	G	T	G	K	ncRNA	CTAGE11P	NA	NA
16617	13	77225321	77225321	A	T	A	W	intronic	SLAIN1	NA	NA
16617	13	91143517	91143517	C	-	G	*-/C	exonic	GPC5	FS_del	NM_004466:p.A134fs
16617	13	91143518	91143518	C	A	C	M	exonic	GPC5	silent	NM_004466:p.A134A
16617	13	107753734	107753734	C	G	C	S	intronic	TNFSF13B	NA	NA
16617	13	113355457	113355457	C	-	G	*-/C	intronic	ATP4B	NA	NA
16617	14	44400610	44400610	G	A	G	R	intergenic	NA	NA	NA
16617	14	46635968	46635968	G	T	G	K	exonic	MDGA2	missense	NM_001113498:p.T345N
16617	14	55209067	55209067	T	G	T	K	intronic	KTN1	NA	NA
16617	14	77106653	77106653	G	A	G	R	intronic	SPTLC2	NA	NA
16617	14	93122988	93122988	G	T	G	K	exonic	KIAA1409	missense	NM_020818:p.D828Y
16617	14	94630295	94630295	C	T	C	Y	intronic	DICER1	NA	NA
16617	15	22973132	22973132	C	A	C	M	ncRNA	SNORD115-4	NA	NA
16617	15	27185041	27185041	G	A	G	R	exonic	APBA2	silent	NM_001130414:p.E552E

16617	15	39310060	39310060	G	A	G	R	UTR5	EXD1	NA	NA
16617	15	39921715	39921715	G	T	G	K	exonic	JMJD7-PLA2	(silent	NM_001198588:p.L449L
16617	15	43510258	43510258	A	G	A	R	splicing	C15orf48	NA	NA
16617	15	46542699	46542699	T	A	T	W	exonic	FBN1	missense	NM_000138:p.Y1699F
16617	15	62944131	62944131	T	C	T	Y	intronic	PLEKHO2	NA	NA
16617	15	68930954	68930954	G	A	G	R	UTR3	LARP6	NA	NA
16617	15	72705392	72705392	G	C	G	S	intronic	CLK3	NA	NA
16617	15	72892341	72892341	C	T	C	Y	exonic	LMAN1L	silent	NM_021819:p.R31R
16617	15	94732877	94732877	G	A	G	R	intergenic	NA	NA	NA
16617	16	21752	21752	C	T	C	Y	intergenic	NA	NA	NA
16617	16	2290070	2290070	G	T	G	K	exonic	ABCA3	missense	NM_001089:p.N516K
16617	16	24099782	24099782	G	A	G	R	intronic	PRKCB	NA	NA
16617	16	34196086	34196086	G	T	G	K	intergenic	NA	NA	NA
16617	16	57095859	57095859	C	T	C	Y	intronic	NDRG4	NA	NA
16617	16	60318560	60318560	T	A	T	W	exonic	CDH8	missense	NM_001796:p.N492I
16617	16	62852177	62852177	A	G	A	R	intergenic	NA	NA	NA
16617	16	65976531	65976531	A	G	A	R	UTR3	LRRC36	NA	NA
16617	16	69058334	69058334	C	T	C	Y	exonic	FUK	silent	NM_145059:p.L154L
16617	16	75955576	75955576	C	T	C	Y	intronic	ADAMTS18	NA	NA
16617	16	80460422	80460422	G	T	G	K	intronic	PLCG2	NA	NA
16617	16	88363855	88363855	G	C	G	S	exonic	FANCA	missense	NM_000135:p.P799A
16617	17	5300126	5300126	T	C	T	Y	exonic	DHX33	missense	NM_020162:p.D317G
16617	17	7857117	7857117	C	A	C	M	intronic	GUCY2D	NA	NA
16617	17	10381529	10381529	T	A	T	W	exonic	MYH2	missense	NM_017534:p.D548V
16617	17	16796599	16796599	C	T	C	Y	exonic	TNFRSF13B	missense	NM_012452:p.V29M
16617	17	22290561	22290561	T	C	T	Y	intergenic	NA	NA	NA
16617	17	22304092	22304092	T	C	T	Y	intergenic	NA	NA	NA
16617	17	36111661	36111661	A	C	A	M	exonic	KRT24	missense	NM_019016:p.N222K
16617	17	50439879	50439879	C	G	C	S	exonic	STXBP4	silent	NM_178509:p.A196A
16617	17	55697637	55697637	G	C	G	S	intronic	USP32	NA	NA
16617	17	59129741	59129741	A	C	A	M	exonic	LIMD2	missense	NM_030576:p.F96C
16617	18	16771423	16771423	T	G	T	K	intergenic	NA	NA	NA
16617	18	16773121	16773121	A	C	A	M	intergenic	NA	NA	NA
16617	18	16953349	16953349	C	G	C	S	intergenic	NA	NA	NA
16617	18	37874715	37874715	A	G	A	R	intronic	PIK3C3	NA	NA
16617	18	43410403	43410403	C	T	C	Y	intergenic	NA	NA	NA
16617	19	11455530	11455530	C	A	C	M	exonic	ZNF653	silent	NM_138783:p.T605T
16617	19	14134628	14134628	C	T	C	Y	exonic	LPHN1	missense	NM_014921:p.D329N
16617	19	16133345	16133345	C	T	C	Y	intronic	CIB3	NA	NA
16617	19	22155590	22155590	C	A	C	M	exonic	ZNF676	nonsense	NM_001001411:p.E257X
16617	19	40710834	40710834	C	A	C	M	exonic	SBSN	nonsense	NM_198538:p.E64X
16617	19	40710835	40710835	C	A	C	M	exonic	SBSN	missense	NM_198538:p.R63S
16617	19	59976907	59976907	C	T	C	Y	intronic	KIR2DL1	NA	NA
16617	19	63681076	63681076	G	C	G	S	intronic	ZNF446	NA	NA
16617	20	1565072	1565072	G	T	G	K	exonic	SIRPG	silent	NM_018556:p.S170S
16617	20	28260020	28260020	G	A	G	R	intergenic	NA	NA	NA
16617	20	41646822	41646822	C	A	C	M	intronic	SGK2	NA	NA
16617	20	50202217	50202217	C	A	C	M	exonic	ZFP64	missense	NM_018197:p.A641S
16617	21	42284900	42284900	G	A	G	R	exonic	ZNF295	missense	NM_001098403:p.R591W
16617	22	23661202	23661202	C	T	C	Y	downstream	TMEM211	NA	NA
16617	22	31322575	31322575	G	C	G	S	intronic	SYN3	NA	NA
16617	22	35202864	35202864	A	C	A	M	intronic	TXN2	NA	NA
16617	22	40937196	40937196	C	G	C	S	exonic	TCF20	missense	NM_005650:p.A1354P
16617	22	44063600	44063600	T	C	T	Y	intronic	UPK3A	NA	NA
16617	X	3250170	3250170	G	C	G	S	exonic	MXRA5	missense	NM_015419:p.Q1186E
16617	X	11228635	11228635	C	G	C	S	intronic	AMELX	NA	NA
16617	X	16797274	16797274	G	A	G	R	intronic	RBBP7	NA	NA
16617	X	17681487	17681487	T	C	T	Y	UTR3	SCML1	NA	NA
16617	X	21425891	21425891	T	G	T	K	intronic	CNKSR2	NA	NA
16617	X	21779645	21779645	C	T	C	Y	exonic	MBTPS2	missense	NM_015884:p.A179V
16617	X	31074498	31074498	A	G	A	R	intronic	DMD	NA	NA
16617	X	48549887	48549887	C	A	C	M	intronic	HDAC6	NA	NA
16617	X	49025509	49025509	T	C	T	Y	intronic	PPP1R3F	NA	NA
16617	X	63405247	63405247	C	T	C	Y	exonic	MTMR8	silent	NM_017677:p.L670L
16617	X	69395783	69395783	G	A	G	R	exonic	P2RY4	silent	NM_002565:p.H139H
16617	X	75471812	75471812	C	A	C	M	intergenic	NA	NA	NA
16617	X	77175949	77175949	C	-	T	*/-C	exonic	ATP7A	FS_del	NM_000052:p.S1162fs
16617	X	77175950	77175950	C	T	C	Y	exonic	ATP7A	silent	NM_000052:p.S1162S
16617	X	77280932	77280932	T	C	T	Y	intronic	TAF9B	NA	NA
16617	X	78102884	78102884	A	G	A	R	exonic	P2RY10	missense	NM_014499:p.I71V
16617	X	89181920	89181920	A	T	A	W	intergenic	NA	NA	NA
16617	X	92363894	92363894	G	T	G	K	intergenic	NA	NA	NA
16617	X	100516427	100516427	A	T	A	W	intronic	BTK	NA	NA
16617	X	128410003	128410003	A	C	A	M	exonic	SMARCA1	silent	NM_003069:p.T1043T
16617	X	135717417	135717417	T	G	T	K	intergenic	NA	NA	NA
16617	X	138684608	138684608	C	A	C	M	exonic	ATP11C	missense	NM_173694:p.S711I
16617	M	1989	1989	G	A	G	R	intergenic	NA	NA	NA
16617	M	12773	12773	G	A	G	R	intergenic	NA	NA	NA
16989	1	27748721	27748721	C	A	C	M	exonic	AHDC1	missense	NM_001029882:p.E831D

16989	1	76938163	76938163	G	T	G	K	intergenic	NA	NA	NA
16989	1	141481015	141481015	T	C	T	Y	intergenic	NA	NA	NA
16989	1	151579523	151579523	G	A	G	R	exonic	PGLYRP4	missense	NM_020393:p.S261F
16989	1	156003561	156003561	C	T	C	Y	intronic	FCRL2	NA	NA
16989	1	173371663	173371663	G	-	T	*/-G	exonic	TNN	FS_del	NM_022093:p.V1130fs
16989	1	179180116	179180116	T	G	T	K	intronic	KIAA1614	NA	NA
16989	1	195185291	195185291	G	A	G	R	exonic	CFHR2	missense	NM_005666:p.G48R
16989	1	199236532	199236532	C	A	C	M	splicing	KIF21B	NA	NA
16989	1	245655305	245655305	C	A	C	M	exonic	NLRP3	missense	NM_001079821:p.A646D
16989	2	25323041	25323041	G	-	A	*/-G	exonic	DNMT3A	FS_del	NM_022552:p.L411fs
16989	2	48661753	48661753	G	T	G	K	exonic	STON1	missense	NM_006873:p.Q159H
16989	2	68529656	68529656	A	G	A	R	intergenic	NA	NA	NA
16989	2	80383448	80383448	G	T	G	K	exonic	LRRTM1	nonsense	NM_178839:p.Y336X
16989	2	101992733	101992733	G	T	G	K	intronic	IL1R2	NA	NA
16989	3	123485778	123485778	A	T	A	W	exonic	CASR	missense	NM_001178065:p.I773F
16989	3	185955395	185955395	G	A	G	R	intergenic	NA	NA	NA
16989	3	185955397	185955397	A	G	A	R	intergenic	NA	NA	NA
16989	3	185955398	185955398	T	G	T	K	intergenic	NA	NA	NA
16989	4	38474820	38474820	G	T	G	K	exonic	TLR1	silent	NM_003263:p.G676G
16989	4	69824923	69824923	C	A	C	M	intergenic	NA	NA	NA
16989	5	37157651	37157651	C	T	C	Y	intronic	C5orf42	NA	NA
16989	5	50719207	50719207	C	G	C	S	exonic	ISL1	missense	NM_002202:p.I115M
16989	5	79663977	79663977	A	T	A	W	intergenic	NA	NA	NA
16989	5	168133912	168133912	C	T	C	Y	exonic	SLIT3	missense	NM_003062:p.D401N
16989	6	143799444	143799444	C	T	C	Y	intronic	ADAT2	NA	NA
16989	7	21226489	21226489	G	T	G	K	intergenic	NA	NA	NA
16989	7	27101485	27101485	C	A	C	M	exonic	HOXA1	missense	NM_005522:p.C191F
16989	7	37591944	37591944	C	A	C	M	intergenic	NA	NA	NA
16989	8	22482596	22482596	C	T	C	Y	intronic	SORBS3	NA	NA
16989	8	116496276	116496276	G	T	G	K	exonic	TRPS1	silent	NM_014112:p.P1012P
16989	9	67896616	67896616	G	A	G	R	intergenic	NA	NA	NA
16989	9	67910342	67910342	T	A	T	W	intergenic	NA	NA	NA
16989	11	15203920	15203920	G	T	G	K	exonic	INSC	missense	NM_001031853:p.Q427H
16989	11	47776498	47776498	G	C	G	S	exonic	NUP160	missense	NM_015231:p.Q997E
16989	11	49383333	49383333	C	A	C	M	intergenic	NA	NA	NA
16989	12	56252143	56252143	G	T	G	K	exonic	KIF5A	missense	NM_004984:p.K465N
16989	13	29680852	29680852	C	A	C	M	exonic	KATNAL1	missense	NM_032116:p.R433I
16989	14	94975763	94975763	C	T	C	Y	exonic	C14orf49	missense	NM_152592:p.E729K
16989	15	27313962	27313962	C	A	C	M	intronic	FAM189A1	NA	NA
16989	15	48497802	48497802	C	T	C	Y	intergenic	NA	NA	NA
16989	15	63410495	63410495	G	T	G	K	exonic	IGDCC3	missense	NM_004884:p.P503T
16989	15	66065608	66065608	T	C	T	Y	intergenic	NA	NA	NA
16989	15	72213278	72213278	C	A	C	M	exonic	ISLR2	missense	NM_001130137:p.P377H
16989	15	72254464	72254464	G	T	G	K	exonic	ISLR	missense	NM_005545:p.R71M
16989	15	72254465	72254465	G	T	G	K	exonic	ISLR	missense	NM_005545:p.R71S
16989	16	20236199	20236199	C	G	C	S	splicing	GP2	NA	NA
16989	16	31139792	31139792	G	T	G	K	intronic	TRIM72	NA	NA
16989	16	32799479	32799479	G	T	G	K	ncRNA	SLC6A10P	NA	NA
16989	16	56611586	56611586	G	T	G	K	exonic	C16orf57	missense	NM_001195302:p.R227L
16989	16	70597904	70597904	T	C	T	Y	intergenic	NA	NA	NA
16989	17	18304947	18304947	C	G	C	S	intergenic	NA	NA	NA
16989	17	35135509	35135509	A	T	A	W	exonic	ERBB2	missense	NM_004448:p.T917S
16989	17	36550152	36550152	G	A	G	R	intergenic	NA	NA	NA
16989	17	70355600	70355600	A	T	A	W	exonic	GRIN2C	missense	NM_000835:p.L586H
16989	18	14772516	14772516	C	A	C	M	intronic	ANKRD30B	NA	NA
16989	18	27189035	27189035	G	T	G	K	exonic	DSG1	missense	NM_001942:p.G960C
16989	19	16179967	16179967	G	T	G	K	intronic	AP1M1	NA	NA
16989	19	36459745	36459745	G	C	G	S	exonic	TSHZ3	missense	NM_020856:p.R932G
16989	19	48122255	48122255	G	T	G	K	intronic	PSG7	NA	NA
16989	19	63270950	63270950	G	A	G	R	exonic	ZNF135	missense	NM_007134:p.R453Q
16989	20	28263510	28263510	T	C	T	Y	intergenic	NA	NA	NA
16989	20	30268176	30268176	G	T	G	K	exonic	POFUT1	missense	NM_015352:p.W178L
16989	20	35097179	35097179	C	A	C	M	exonic	RBL1	missense	NM_183404:p.A684S
16989	21	9734468	9734468	C	G	C	S	intergenic	NA	NA	NA
16989	21	9734479	9734479	G	T	G	K	intergenic	NA	NA	NA
16989	X	24433224	24433224	C	T	C	Y	intronic	PDK3	NA	NA
16989	X	84249320	84249320	C	G	C	S	exonic	SATL1	missense	NM_001012980:p.W437C
16989	X	100004251	100004251	G	A	G	R	intronic	NOX1	NA	NA
16989	X	101025754	101025754	C	A	C	M	exonic	ZMAT1	missense	NM_001011657:p.R434I
16989	X	116917258	116917258	G	A	G	R	exonic	KLHL13	missense	NM_033495:p.L537F
16989	X	127013435	127013435	C	A	C	M	exonic	ACTRT1	silent	NM_138289:p.A144A
16989	X	134572459	134572459	G	T	G	K	intergenic	NA	NA	NA
16989	X	144519908	144519908	G	T	G	K	intergenic	NA	NA	NA
16989	Y	11875735	11875735	T	G	T	K	intergenic	NA	NA	NA
16989	Y	11939480	11939480	G	A	G	R	intergenic	NA	NA	NA
16989	Y	57433907	57433907	G	A	G	R	intergenic	NA	NA	NA
16989	Y	57439304	57439304	C	A	C	M	intergenic	NA	NA	NA
16989	M	3516	3516	T	C	T	Y	intergenic	NA	NA	NA
17273	1	141858684	141858684	C	T	C	Y	intergenic	NA	NA	NA

17273	1	141893740	141893740	C	A	C	M	intergenic	NA	NA	NA
17273	1	142354717	142354717	T	A	T	W	intergenic	NA	NA	NA
17273	1	147296028	147296028	G	A	G	R	intergenic	NA	NA	NA
17273	1	147296059	147296059	A	T	A	W	intergenic	NA	NA	NA
17273	2	90978495	90978495	C	T	C	Y	intergenic	NA	NA	NA
17273	2	132737381	132737381	A	C	A	M	intergenic	NA	NA	NA
17273	2	227635434	227635434	T	G	T	K	intronic	COL4A4	NA	NA
17273	6	167035904	167035904	C	T	C	Y	intronic	RPS6KA2	NA	NA
17273	7	61605718	61605718	G	C	G	S	intergenic	NA	NA	NA
17273	8	141514555	141514555	A	C	A	M	intronic	TRAPPC9	NA	NA
17273	10	38858537	38858537	G	T	G	K	intergenic	NA	NA	NA
17273	10	127570883	127570883	T	C	T	Y	intergenic	NA	NA	NA
17273	14	18184517	18184517	T	C	T	Y	intergenic	NA	NA	NA
17273	15	18710256	18710256	G	T	G	K	intergenic	NA	NA	NA
17273	15	18742156	18742156	A	T	A	W	intergenic	NA	NA	NA
17273	17	20712749	20712749	A	T	A	W	intronic	CCDC144NL	NA	NA
17273	18	99468	99468	T	G	T	K	ncRNA	ROCK1P1	NA	NA
17273	18	16766258	16766258	A	T	A	W	intergenic	NA	NA	NA
17273	18	16766268	16766268	T	C	T	Y	intergenic	NA	NA	NA
17273	18	16769780	16769780	T	C	T	Y	intergenic	NA	NA	NA
17273	19	38136319	38136319	C	T	C	Y	intronic	CCDC123	NA	NA
17273	20	28261745	28261745	A	G	A	R	intergenic	NA	NA	NA
17273	20	28263855	28263855	T	G	T	K	intergenic	NA	NA	NA
17273	21	9765896	9765896	C	T	C	Y	intergenic	NA	NA	NA
17273	21	10101573	10101573	T	A	T	W	intronic	BAGE	NA	NA
18472	1	11225925	11225925	A	T	A	W	exonic	MTOR	missense	NM_004958:p.D415E
18472	1	40571318	40571318	T	-	A	*/-T	intergenic	NA	NA	NA
18472	1	45583360	45583360	G	A	G	R	exonic	TESK2	silent	NM_007170:p.R485R
18472	1	141479247	141479247	C	A	C	M	intergenic	NA	NA	NA
18472	1	141482690	141482690	C	A	C	M	intergenic	NA	NA	NA
18472	1	141482694	141482694	A	T	A	W	intergenic	NA	NA	NA
18472	1	141844473	141844473	C	T	C	Y	intergenic	NA	NA	NA
18472	1	141844497	141844497	G	T	G	K	intergenic	NA	NA	NA
18472	1	147326624	147326624	C	T	C	Y	intergenic	NA	NA	NA
18472	1	177790191	177790191	T	C	T	Y	intronic	C1orf125	NA	NA
18472	1	207865871	207865871	C	T	C	Y	exonic	LAMB3	missense	NM_000228:p.R574H
18472	1	235104632	235104632	A	T	A	W	intronic	MTR	NA	NA
18472	1	239818721	239818721	C	T	C	Y	exonic	KMO	missense	NM_003679:p.A355V
18472	2	61475918	61475918	A	G	A	R	intronic	USP34	NA	NA
18472	2	91002425	91002425	A	G	A	R	intergenic	NA	NA	NA
18472	2	91022985	91022985	A	G	A	R	intergenic	NA	NA	NA
18472	2	127723987	127723987	A	-	C	*/-A	intergenic	NA	NA	NA
18472	2	152021416	152021416	A	G	A	R	intronic	RIF1	NA	NA
18472	2	157992155	157992155	A	G	A	R	exonic	CYTIP	missense	NM_004288:p.M167T
18472	2	201839759	201839759	G	T	G	K	splicing	CASP8	missense	NM_001080124:p.R102M
18472	2	206732976	206732976	G	A	G	R	exonic	EEF1B2	missense	NM_001959:p.A10T
18472	2	219165468	219165468	T	C	T	Y	intronic	RQCD1	NA	NA
18472	2	220201467	220201467	C	A	C	M	exonic	SLC4A3	missense	NM_201574:p.L50I
18472	3	49734998	49734998	C	T	C	Y	intronic	GMPPB	NA	NA
18472	3	139665944	139665944	G	A	G	R	exonic	ESYT3	missense	NM_031913:p.R328Q
18472	3	198142180	198142180	C	T	C	Y	exonic	SENP5	missense	NM_152699:p.L753F
18472	4	6117707	6117707	G	T	G	K	intronic	JAKMIP1	NA	NA
18472	4	48814800	48814800	T	G	T	K	intergenic	NA	NA	NA
18472	4	48817870	48817870	A	G	A	R	intergenic	NA	NA	NA
18472	4	75703705	75703705	G	A	G	R	exonic	AREG	missense	NM_001657:p.G157R
18472	4	111758928	111758928	C	T	C	Y	exonic	PITX2	silent	NM_000325:p.S259S
18472	4	124032931	124032931	A	G	A	R	exonic	FGF2	missense	NM_002006:p.Y266C
18472	4	147026794	147026794	C	T	C	Y	intronic	ZNF827	NA	NA
18472	4	164686150	164686150	G	T	G	K	intronic	1-Mar	NA	NA
18472	4	190716012	190716012	A	C	A	M	intergenic	NA	NA	NA
18472	5	72908521	72908521	C	-	T	*/-C	intronic	UTP15	NA	NA
18472	5	112185602	112185602	T	-	G	*/-T	intronic	APC	NA	NA
18472	5	134938304	134938304	T	C	T	Y	intronic	CXCL14	NA	NA
18472	5	148978715	148978715	G	A	G	R	exonic	ARHGEF37	missense	NM_001001669:p.D271N
18472	6	2620249	2620249	A	-	G	*/-A	intronic	MYLK4	NA	NA
18472	6	29697940	29697940	G	A	G	R	exonic	GABBR1	nonsense	NM_001470:p.R329X
18472	6	33396721	33396721	C	T	C	Y	exonic	DAXX	missense	NM_001141969:p.R270H
18472	6	44465973	44465973	T	-	A	*/-T	intronic	CDC5L	NA	NA
18472	6	88910831	88910831	G	A	G	R	exonic	CNR1	silent	NM_001160258:p.Y294Y
18472	6	99903662	99903662	C	-	G	*/-C	intronic	C6orf168	NA	NA
18472	6	111858156	111858156	C	T	C	Y	intronic	REV3L	NA	NA
18472	6	144169870	144169870	T	-	A	*/-T	intronic	PHACTR2	NA	NA
18472	6	163069480	163069480	G	A	G	R	intronic	PACRG	NA	NA
18472	7	1556432	1556432	T	C	T	Y	intronic	TMEM184A	NA	NA
18472	7	6935933	6935933	C	A	C	M	intergenic	NA	NA	NA
18472	7	64860421	64860421	G	T	G	K	ncRNA	CCT6P1	NA	NA
18472	7	99589088	99589088	C	-	G	*/-C	intronic	C7orf59	NA	NA
18472	7	149617558	149617558	T	C	T	Y	exonic	ACTR3C	missense	NM_001164458:p.I71V
18472	7	149665195	149665195	C	T	C	Y	exonic	LRR61	silent	NM_023942:p.A104A

18472	8	12027674	12027674	G	A	G	R	ncRNA	FAM66D	NA	NA
18472	8	23273689	23273689	G	A	G	R	exonic	LOXL2	silent	NM_002318:p.G130G
18472	8	27350720	27350720	A	G	A	R	intronic	PTK2B	NA	NA
18472	8	52796759	52796759	A	-	T	*/-A	intronic	PXDNL	NA	NA
18472	8	101794213	101794213	A	G	A	R	intronic	PABPC1	NA	NA
18472	8	145062820	145062820	C	T	C	Y	exonic	PLEC	missense	NM_201384:p.R4386H
18472	9	38385946	38385946	C	T	C	Y	exonic	ALDH1B1	silent	NM_000692:p.H67H
18472	9	67904059	67904059	T	C	T	Y	intergenic	NA	NA	NA
18472	9	67904123	67904123	T	G	T	K	intergenic	NA	NA	NA
18472	9	85115200	85115200	A	-	T	*/-A	intronic	FRMD3	NA	NA
18472	9	115970958	115970958	G	C	G	S	exonic	COL27A1	missense	NM_032888:p.R434S
18472	9	130052151	130052151	G	A	G	R	intronic	DNM1	NA	NA
18472	9	133759164	133759164	T	C	T	Y	exonic	MED27	missense	NM_004269:p.M204V
18472	10	6303442	6303442	C	T	C	Y	exonic	PFKFB3	silent	NM_001145443:p.A288A
18472	10	26546545	26546545	C	T	C	Y	splicing	GAD2	missense	NM_001134366:p.A26V
18472	10	27548715	27548715	C	G	C	S	exonic	ACBD5	missense	NM_145698:p.E190Q
18472	10	41685573	41685573	T	A	T	W	intergenic	NA	NA	NA
18472	10	41685574	41685574	C	A	C	M	intergenic	NA	NA	NA
18472	10	41713983	41713983	A	G	A	R	intergenic	NA	NA	NA
18472	10	61693590	61693590	G	A	G	R	intronic	ANK3	NA	NA
18472	10	69918192	69918192	C	T	C	Y	intronic	SLC25A16	NA	NA
18472	10	90691018	90691018	A	G	A	R	exonic	ACTA2	silent	NM_001613:p.T188T
18472	10	95316832	95316832	G	A	G	R	exonic	GPR120	missense	NM_001195755:p.G122D
18472	10	99116424	99116424	G	T	G	K	intronic	RRP12	NA	NA
18472	10	115354659	115354659	C	T	C	Y	exonic	NRAP	missense	NM_006175:p.R1274K
18472	10	116709465	116709465	C	A	C	M	intronic	TRUB1	NA	NA
18472	10	121819497	121819497	G	A	G	R	intergenic	NA	NA	NA
18472	11	1930563	1930563	T	-	A	*/-T	intronic	MRPL23	NA	NA
18472	11	6200327	6200327	A	G	A	R	exonic	FAM160A2	missense	NM_032127:p.L371P
18472	11	9726045	9726045	G	A	G	R	exonic	SWAP70	missense	NM_015055:p.A474T
18472	11	62517546	62517546	C	A	C	M	exonic	SLC22A8	silent	NM_001184736:p.G362G
18472	11	116197645	116197645	C	T	C	Y	exonic	APOA4	silent	NM_000482:p.L113L
18472	11	128286493	128286493	C	T	C	Y	exonic	KCNJ5	missense	NM_000890:p.R39C
18472	12	537121	537121	G	A	G	R	exonic	B4GALNT3	missense	NM_173593:p.V823I
18472	12	9464172	9464172	G	A	G	R	ncRNA	DDX12	NA	NA
18472	12	45044674	45044674	A	-	T	*/-A	intronic	SLC38A2	NA	NA
18472	12	47378166	47378166	A	-	G	*/-A	intronic	CCNT1	NA	NA
18472	12	47545749	47545749	C	T	C	Y	exonic	RND1	silent	NM_014470:p.Q23Q
18472	12	52001409	52001409	G	-	C	*/-G	exonic	AAAS	FS_del	NM_015665:p.P36fs
18472	12	53051837	53051837	C	-	A	*/-C	intronic	ZNF385A	NA	NA
18472	12	55151770	55151770	A	G	A	R	intronic	GLS2	NA	NA
18472	13	114028549	114028549	A	G	A	R	intronic	CDC16	NA	NA
18472	14	22896379	22896379	C	A	C	M	exonic	EFS	missense	NM_032459:p.G435C
18472	14	35193410	35193410	C	T	C	Y	exonic	RALGAPA1	missense	NM_194301:p.V1335I
18472	14	51575302	51575302	G	T	G	K	exonic	NID2	missense	NM_007361:p.L724M
18472	14	64475994	64475994	G	A	G	R	exonic	GPX2	missense	NM_002083:p.P180S
18472	14	89799659	89799659	C	T	C	Y	intronic	PSMC1	NA	NA
18472	15	48573526	48573526	T	C	T	Y	intronic	USP8	NA	NA
18472	16	17128975	17128975	C	T	C	Y	intronic	XYLT1	NA	NA
18472	16	30997347	30997347	C	T	C	Y	exonic	ZNF646	missense	NM_014699:p.S734F
18472	16	33864695	33864695	T	C	T	Y	intergenic	NA	NA	NA
18472	16	34640134	34640134	A	G	A	R	intergenic	NA	NA	NA
18472	16	44990619	44990619	C	T	C	Y	intergenic	NA	NA	NA
18472	16	45905104	45905104	A	-	T	*/-A	intronic	ITFG1	NA	NA
18472	16	68946899	68946899	A	G	A	R	exonic	DDX19A	silent	NM_018332:p.K39K
18472	16	84512357	84512357	T	-	A	*/-T	exonic	IRF8	FS_del	NM_002163:p.F417fs
18472	17	2516097	2516097	A	-	G	*/-A	exonic	PFAFH1B1	FS_del	NM_000430:p.E52fs
18472	17	6439098	6439098	C	T	C	Y	splicing	KIAA0753	NA	NA
18472	17	6593960	6593960	G	A	G	R	intergenic	NA	NA	NA
18472	17	7163125	7163125	G	A	G	R	exonic	NEURL4	missense	NM_001005408:p.R1216W
18472	17	24262275	24262275	T	C	T	Y	exonic	PHF12	silent	NM_001033561:p.A732A
18472	17	46452553	46452553	T	C	T	Y	exonic	SPAG9	missense	NM_001130528:p.M353V
18472	17	59259347	59259347	A	G	A	R	intronic	PSMC5	NA	NA
18472	18	14122259	14122259	-	C	G	*/+C	ncRNA	ZNF519	NA	NA
18472	18	27947722	27947722	T	C	T	Y	exonic	RNF138	missense	NM_001191324:p.M135T
18472	19	13411996	13411996	G	A	G	R	exonic	NDUFS7	missense	NM_024407:p.V119I
18472	19	6618306	6618306	G	A	G	R	intronic	TNFSF14	NA	NA
18472	19	9207485	9207485	C	T	C	Y	intergenic	NA	NA	NA
18472	19	10966645	10966645	C	T	C	Y	exonic	SMARCA4	missense	NM_001128845:p.R521W
18472	19	13087558	13087558	G	A	G	R	exonic	TRMT1	missense	NM_001142554:p.T112M
18472	19	14439427	14439427	G	T	G	K	exonic	PKN1	missense	NM_002741:p.Q594H
18472	19	15332802	15332802	G	A	G	R	intronic	AKAP8	NA	NA
18472	19	23119669	23119669	A	G	A	R	intergenic	NA	NA	NA
18472	19	38646856	38646856	C	T	C	Y	intronic	PEPD	NA	NA
18472	19	42476568	42476568	C	G	C	S	intergenic	NA	NA	NA
18472	19	45775974	45775974	C	T	C	Y	intronic	SHKBP1	NA	NA
18472	19	61135459	61135459	C	A	C	M	exonic	NLRP13	missense	NM_176810:p.G11C
18472	20	18433369	18433369	C	T	C	Y	intergenic	NA	NA	NA
18472	20	24941556	24941556	G	A	G	R	exonic	ACSS1	silent	NM_032501:p.D533D



18472	20	28196493	28196493	T	G	T	K	intergenic	NA	NA	NA
18472	20	28196548	28196548	A	G	A	R	intergenic	NA	NA	NA
18472	20	28265671	28265671	C	T	C	Y	intergenic	NA	NA	NA
18472	20	33036365	33036365	C	A	C	M	exonic	MYH7B	silent	NM_020884:p.A274A
18472	21	10198027	10198027	A	G	A	R	intergenic	NA	NA	NA
18472	X	46971465	46971465	C	T	C	Y	intronic	CDK16	NA	NA
18472	X	48557922	48557922	G	A	G	R	intronic	HDAC6	NA	NA
18472	X	53619386	53619386	T	C	T	Y	exonic	HUWE1	missense	NM_031407:p.Y1991C
18472	X	70741089	70741089	A	G	A	R	exonic	ACRC	missense	NM_052957:p.R413G
18472	X	80263600	80263600	A	-	T	*-/A	intronic	HMG5	NA	NA
18472	X	152607446	152607446	G	A	G	R	exonic	SLC6A8	missense	NM_001142805:p.V75M
18472	X	152840026	152840026	G	A	G	R	exonic	ARHGAP4	missense	NM_001666:p.R141C
18472	Y	11911343	11911343	T	A	T	W	intergenic	NA	NA	NA
7285	1	1257126	1257126	C	G	C	S	exonic	TAS1R3	missense	NM_152228:p.S146W
7285	1	8480275	8480275	G	A	G	R	intronic	RERE	NA	NA
7285	1	15662019	15662019	C	T	C	Y	intronic	CELA2A	NA	NA
7285	1	21772797	21772797	G	C	G	S	exonic	ALPL	silent	NM_001127501:p.T250T
7285	1	50083551	50083551	C	A	C	M	intronic	AGBL4	NA	NA
7285	1	66871289	66871289	G	A	G	R	intronic	SGIP1	NA	NA
7285	1	80689741	80689741	G	T	G	K	intergenic	NA	NA	NA
7285	1	89045879	89045879	A	G	A	R	intronic	PKN2	NA	NA
7285	1	103125275	103125275	T	A	T	W	intronic	COL11A1	NA	NA
7285	1	110686013	110686013	A	T	A	W	exonic	RBM15	silent	NM_022768:p.S821S
7285	1	115321750	115321750	A	G	A	R	exonic	SYCP1	missense	NM_003176:p.K791R
7285	1	121185779	121185779	C	T	C	Y	intergenic	NA	NA	NA
7285	1	143586284	143586284	C	A	C	M	intronic	PDE4DIP	NA	NA
7285	1	147331849	147331849	G	T	G	K	intergenic	NA	NA	NA
7285	1	147360322	147360322	G	A	G	R	intergenic	NA	NA	NA
7285	1	152049361	152049361	G	A	G	R	exonic	GATAD2B	silent	NM_020699:p.P566P
7285	1	152584147	152584147	G	T	G	K	exonic	ATP8B2	missense	NM_020452:p.R821L
7285	1	153849456	153849456	C	G	C	S	intronic	MSTO1	NA	NA
7285	1	153849470	153849470	A	G	A	R	exonic	MSTO1	missense	NM_018116:p.T369A
7285	1	155145476	155145476	G	C	G	S	intronic	PEAR1	NA	NA
7285	1	156330179	156330179	G	T	G	K	intronic	KIRREL	NA	NA
7285	1	156567581	156567581	A	G	A	R	intronic	CD1B	NA	NA
7285	1	156847745	156847745	G	T	G	K	exonic	SPTA1	missense	NM_003126:p.P2398Q
7285	1	156859469	156859469	G	A	G	R	exonic	SPTA1	silent	NM_003126:p.R2016R
7285	1	156889071	156889071	G	T	G	K	intronic	SPTA1	NA	NA
7285	1	156914323	156914323	A	G	A	R	intronic	SPTA1	NA	NA
7285	1	156991598	156991598	T	C	T	Y	exonic	OR6K6	silent	NM_001005184:p.A123A
7285	1	165172653	165172653	G	A	G	R	intronic	ILDR2	NA	NA
7285	1	165647779	165647779	C	T	C	Y	ncRNA	POU2F1	NA	NA
7285	1	168605942	168605942	G	C	G	S	intergenic	NA	NA	NA
7285	1	173571519	173571519	C	A	C	M	exonic	TNR	missense	NM_003285:p.W1194C
7285	1	174852157	174852157	T	C	T	Y	intronic	PAPPA2	NA	NA
7285	1	174931454	174931454	T	C	T	Y	intronic	PAPPA2	NA	NA
7285	1	175194045	175194045	T	A	T	W	intronic	ASTN1	NA	NA
7285	1	177856896	177856896	T	A	T	W	intronic	TDRD5	NA	NA
7285	1	184591427	184591427	G	C	G	S	exonic	TPR	nonsense	NM_003292:p.S662X
7285	1	198356676	198356676	T	C	T	Y	exonic	NR5A2	missense	NM_003822:p.C404R
7285	1	204080727	204080727	G	A	G	R	intronic	PM20D1	NA	NA
7285	1	206300678	206300678	G	T	G	K	exonic	PLXNA2	missense	NM_025179:p.P905Q
7285	1	213842125	213842125	A	T	A	W	exonic	KCTD3	missense	NM_016121:p.D366V
7285	1	213914947	213914947	C	A	C	M	exonic	USH2A	missense	NM_206933:p.S4310I
7285	1	214140143	214140143	C	T	C	Y	exonic	USH2A	silent	NM_206933:p.V2497V
7285	1	220986569	220986569	C	A	C	M	exonic	FAM177B	missense	NM_207468:p.T20N
7285	1	226313475	226313475	T	C	T	Y	exonic	WNT3A	missense	NM_033131:p.S249P
7285	1	227840348	227840348	C	A	C	M	exonic	URB2	missense	NM_014777:p.T1122K
7285	1	228995355	228995355	A	C	A	M	intronic	CAPN9	NA	NA
7285	1	233950962	233950962	C	T	C	Y	intronic	LYST	NA	NA
7285	1	238374682	238374682	C	A	C	M	intronic	FMN2	NA	NA
7285	1	238622385	238622385	T	A	T	W	intronic	FMN2	NA	NA
7285	1	239735906	239735906	T	C	T	Y	intronic	FH	NA	NA
7285	1	244877522	244877522	G	T	G	K	exonic	CNST	missense	NM_152609:p.D466Y
7285	1	246044826	246044826	T	C	T	Y	exonic	OR14A16	missense	NM_001001966:p.M277V
7285	1	246058162	246058162	T	C	T	Y	intergenic	NA	NA	NA
7285	1	246071059	246071059	T	C	T	Y	exonic	OR11L1	missense	NM_001001959:p.M255V
7285	1	246125938	246125938	G	T	G	K	exonic	OR2W3	missense	NM_001001957:p.G143C
7285	1	246503675	246503675	T	C	T	Y	exonic	OR2T33	missense	NM_001004695:p.H22R
7285	1	246553978	246553978	C	T	C	Y	exonic	OR2M7	silent	NM_001004691:p.R172R
7285	1	246671528	246671528	G	T	G	K	intergenic	NA	NA	NA
7285	1	246671985	246671985	C	A	C	S	intergenic	NA	NA	NA
7285	1	246752295	246752295	C	G	C	M	exonic	OR2G6	nonsense	NM_001013355:p.S242X
7285	2	24376603	24376603	C	T	C	Y	intronic	ITSN2	NA	NA
7285	2	26558817	26558817	A	C	A	M	exonic	OTOF	missense	NM_194248:p.F514V
7285	2	37086432	37086432	T	G	T	K	intronic	HEATR5B	NA	NA
7285	2	37207063	37207063	A	C	A	M	intronic	EIF2AK2	NA	NA
7285	2	40509715	40509715	C	T	C	Y	exonic	SLC8A1	missense	NM_021097:p.D404N
7285	2	48996625	48996625	T	G	T	K	intergenic	NA	NA	NA

7285	2	61424394	61424394	T	A	T	W	intronic	USP34	NA	NA
7285	2	71631721	71631721	A	G	A	R	exonic	DYSF	missense	NM_001130979:p.Y553C
7285	2	74444039	74444039	C	G	C	S	exonic	DCTN1	missense	NM_001135040:p.G1054R
7285	2	74505973	74505973	C	A	C	M	intronic	WDR54	NA	NA
7285	2	87647745	87647745	T	A	T	W	intergenic	NA	NA	NA
7285	2	88073484	88073484	C	G	C	S	intergenic	NA	NA	NA
7285	2	94942161	94942161	G	T	G	K	ncRNA	LOC442028	NA	NA
7285	2	113667442	113667442	G	T	G	K	intronic	PSD4	NA	NA
7285	2	114102716	114102716	C	T	C	Y	exonic	RABL2A	silent	NM_013412:p.N21N
7285	2	114734159	114734159	G	C	G	S	intergenic	NA	NA	NA
7285	2	114734160	114734160	G	T	G	K	intergenic	NA	NA	NA
7285	2	115942783	115942783	G	T	G	K	intronic	DPP10	NA	NA
7285	2	122232772	122232772	G	A	G	R	exonic	TSN	silent	NM_004622:p.L59L
7285	2	127525227	127525227	C	T	C	Y	exonic	BIN1	silent	NM_139344:p.G435G
7285	2	127897139	127897139	C	A	C	M	exonic	PROC	missense	NM_000312:p.H108N
7285	2	130509199	130509199	C	A	C	M	ncRNA	LOC440905	NA	NA
7285	2	131985869	131985869	C	T	C	Y	ncRNA	LOC150776	NA	NA
7285	2	136286904	136286904	C	T	C	Y	exonic	LCT	silent	NM_002299:p.V600V
7285	2	160443062	160443062	C	A	C	M	intronic	LY75	NA	NA
7285	2	162961487	162961487	A	T	A	W	intronic	KCNH7	NA	NA
7285	2	179372887	179372887	G	T	G	K	intronic	TTN	NA	NA
7285	2	196880877	196880877	C	A	C	M	intronic	HECW2	NA	NA
7285	2	200508915	200508915	A	G	A	R	exonic	C2orf60	silent	NM_001039693:p.D225D
7285	2	202863261	202863261	T	G	T	K	intronic	NOP58	NA	NA
7285	2	211178073	211178073	C	T	C	Y	exonic	CPS1	silent	NM_001122633:p.A619A
7285	3	2917273	2917273	A	T	A	W	intronic	CNTN4	NA	NA
7285	3	5224805	5224805	A	G	A	R	exonic	EDEM1	missense	NM_014674:p.I456V
7285	3	35700562	35700562	T	C	T	Y	UTR3	ARPP21	NA	NA
7285	3	35745939	35745939	C	T	C	Y	exonic	ARPP21	nonsense	NM_016300:p.Q456X
7285	3	44907098	44907098	G	C	G	S	splicing	TGM4	NA	NA
7285	3	52833007	52833007	G	-	C	*/-G	exonic	ITIH4	FS_del	NM_001166449:p.R409fs
7285	3	57257392	57257392	G	T	G	K	exonic	APPL1	missense	NM_012096:p.R279L
7285	3	74398266	74398266	A	T	A	W	intronic	CNTN3	NA	NA
7285	3	98189297	98189297	G	C	G	S	exonic	EPHA6	missense	NM_001080448:p.R295P
7285	3	99699598	99699598	C	A	C	M	exonic	OR5K2	missense	NM_001004737:p.N128K
7285	3	102430979	102430979	C	A	C	M	exonic	IMPG2	missense	NM_016247:p.V1190L
7285	3	109845994	109845994	G	A	G	R	exonic	DZIP3	missense	NM_014648:p.V479M
7285	3	110172891	110172891	C	T	C	Y	exonic	MORC1	silent	NM_014429:p.L842L
7285	3	114667252	114667252	C	G	C	S	exonic	SPICE1	missense	NM_144718:p.E409Q
7285	3	120615951	120615951	G	C	G	S	exonic	ARHGAP31	missense	NM_020754:p.E829Q
7285	3	120908398	120908398	A	T	A	W	exonic	C3orf15	missense	NM_033364:p.Q59H
7285	3	121230862	121230862	G	C	G	S	intronic	GSK3B	NA	NA
7285	3	121386907	121386907	T	G	T	K	exonic	GPR156	missense	NM_153002:p.T209P
7285	3	125658134	125658134	C	G	C	S	intronic	KALRN	NA	NA
7285	3	126125277	126125277	T	G	T	K	intronic	MUC13	NA	NA
7285	3	126320481	126320481	G	T	G	K	intronic	SLC12A8	NA	NA
7285	3	134949793	134949793	T	C	T	Y	intronic	TF	NA	NA
7285	3	137644942	137644942	A	C	A	M	intronic	STAG1	NA	NA
7285	3	144719435	144719435	C	T	C	Y	intronic	SLC9A9	NA	NA
7285	3	148603203	148603203	A	T	A	W	splicing	ZIC4	NA	NA
7285	3	149942333	149942333	G	A	G	R	exonic	AGTR1	missense	NM_009585:p.C274Y
7285	3	157312990	157312990	C	T	C	Y	intergenic	NA	NA	NA
7285	3	158228792	158228792	G	A	G	R	exonic	LEKR1	silent	NM_001004316:p.L525L
7285	3	171040658	171040658	T	C	T	Y	exonic	LRRC31	missense	NM_024727:p.S489G
7285	3	184974166	184974166	G	G	T	K	exonic	YEATS2	missense	NM_018023:p.L753W
7285	3	188053608	188053608	C	G	C	S	exonic	ADIPOQ	missense	NM_004797:p.Q23E
7285	3	194815552	194815552	C	T	C	Y	intronic	OPA1	NA	NA
7285	3	197918766	197918766	G	A	G	R	UTR3	C3orf34	NA	NA
7285	3	198893119	198893119	G	A	G	R	exonic	KIAA0226	silent	NM_014687:p.G725G
7285	4	4129853	4129853	C	G	C	S	intergenic	NA	NA	NA
7285	4	46625351	46625351	C	A	C	M	exonic	GABRA4	missense	NM_000809:p.R438L
7285	4	77114322	77114322	C	T	C	Y	intronic	SDAD1	NA	NA
7285	4	84610622	84610622	T	C	T	Y	intronic	FAM175A	NA	NA
7285	4	85845613	85845613	C	T	C	Y	exonic	WDFY3	missense	NM_014991:p.A2765T
7285	4	94365000	94365000	A	T	A	W	intronic	GRID2	NA	NA
7285	4	102166197	102166197	C	A	C	M	exonic	PPP3CA	nonsense	NM_001130692:p.E420X
7285	4	103211391	103211391	G	T	G	K	intronic	BANK1	NA	NA
7285	4	134290881	134290881	A	T	A	W	exonic	PCDH10	missense	NM_032961:p.T465
7285	4	164612943	164612943	G	T	G	K	exonic	TKTL2	missense	NM_032136:p.A465D
7285	4	174491413	174491413	G	C	G	S	UTR5	HMGB2	NA	NA
7285	4	176134650	176134650	T	C	T	Y	exonic	ADAM29	missense	NM_014269:p.W467R
7285	4	190631357	190631357	C	A	C	M	ncRNA	HSP90AA4P	NA	NA
7285	5	1516958	1516958	G	A	G	R	intronic	LPCAT1	NA	NA
7285	5	11212613	11212613	A	T	A	W	intronic	CTNND2	NA	NA
7285	5	23558835	23558835	G	T	G	K	intronic	PRDM9	NA	NA
7285	5	26916990	26916990	C	T	C	Y	UTR3	CDH9	NA	NA
7285	5	29038224	29038224	C	G	C	S	intergenic	NA	NA	NA
7285	5	29038225	29038225	C	A	C	M	intergenic	NA	NA	NA
7285	5	29917828	29917828	C	T	C	Y	intergenic	NA	NA	NA

7285	5	38517785	38517785	T	A	T	W	exonic	LIFR	missense	NM_002310:p.E988V
7285	5	41418191	41418191	C	T	C	Y	exonic	PLCXD3	silent	NM_001005473:p.K102K
7285	5	41623082	41623082	C	A	C	M	intergenic	NA	NA	NA
7285	5	64120503	64120503	T	C	T	Y	intronic	CWC27	NA	NA
7285	5	88988743	88988743	G	A	G	R	intergenic	NA	NA	NA
7285	5	96357842	96357842	C	T	C	Y	intronic	LNPEP	NA	NA
7285	5	128824050	128824050	T	A	T	W	exonic	ADAMTS19	missense	NM_133638:p.F17I
7285	5	129058349	129058349	G	A	G	R	exonic	ADAMTS19	missense	NM_133638:p.M946I
7285	5	140201589	140201589	G	A	G	R	exonic	PCDHA8	missense	NM_018911:p.V167M
7285	5	140548473	140548473	C	A	C	M	exonic	PCDHB9	missense	NM_019119:p.P466Q
7285	5	140699883	140699883	C	A	C	M	exonic	PCDHGA2	silent	NM_018915:p.P387P
7285	5	142692369	142692369	T	G	T	K	intronic	NR3C1	NA	NA
7285	5	147675488	147675488	T	A	T	W	UTR3	SPINK7	NA	NA
7285	5	156308223	156308223	C	A	C	M	intronic	TIMD4	NA	NA
7285	5	178341523	178341523	C	G	C	S	intronic	GRM6	NA	NA
7285	5	178438245	178438245	G	A	G	R	intronic	ZNF354C	NA	NA
7285	6	24775526	24775526	G	T	G	K	exonic	ACOT13	missense	NM_018473:p.R19L
7285	6	25131640	25131640	G	A	G	R	intergenic	NA	NA	NA
7285	6	27599674	27599674	C	A	C	M	intergenic	NA	NA	NA
7285	6	27637359	27637359	G	T	G	K	intergenic	NA	NA	NA
7285	6	28647915	28647915	C	A	C	M	exonic	SCAND3	missense	NM_052923:p.A1244S
7285	6	28979947	28979947	A	C	A	M	exonic	TRIM27	missense	NM_006510:p.F474C
7285	6	29493875	29493875	C	A	C	M	intergenic	NA	NA	NA
7285	6	32038804	32038804	A	T	A	W	exonic	SKIV2L	missense	NM_006929:p.S454C
7285	6	32225202	32225202	C	T	C	Y	intronic	PRRT1	NA	NA
7285	6	33862469	33862469	C	A	C	M	intronic	LEMD2	NA	NA
7285	6	40467809	40467809	C	A	C	M	exonic	LRFN2	missense	NM_020737:p.G741C
7285	6	46982442	46982442	C	A	C	M	exonic	GPR116	missense	NM_015234:p.R6I
7285	6	49517657	49517657	T	C	T	Y	intronic	MUT	NA	NA
7285	6	50045267	50045267	C	A	C	M	exonic	DEFB113	missense	NM_001037729:p.V11F
7285	6	50791344	50791344	C	A	C	M	intronic	TFAP2D	NA	NA
7285	6	54457918	54457918	A	G	A	R	intergenic	NA	NA	NA
7285	6	56612497	56612497	C	A	C	M	exonic	DST	missense	NM_001723:p.A348S
7285	6	66171947	66171947	A	C	A	M	exonic	EYS	silent	NM_198283:p.V299V
7285	6	66860010	66860010	C	T	C	Y	intergenic	NA	NA	NA
7285	6	66860261	66860261	C	A	C	M	intergenic	NA	NA	NA
7285	6	68701013	68701013	A	T	A	W	intergenic	NA	NA	NA
7285	6	69760513	69760513	C	A	C	M	exonic	BAI3	missense	NM_001704:p.L623M
7285	6	73957166	73957166	C	A	C	M	intronic	KCNQ5	NA	NA
7285	6	78229710	78229710	T	C	T	Y	exonic	HTR1B	missense	NM_000863:p.I44V
7285	6	88820501	88820501	G	A	G	R	intronic	SPACA1	NA	NA
7285	6	90456607	90456607	G	A	G	R	intronic	MDN1	NA	NA
7285	6	90482175	90482175	C	T	C	Y	exonic	MDN1	missense	NM_014611:p.E2260K
7285	6	97783521	97783521	C	T	C	Y	exonic	MMS22L	missense	NM_198468:p.S670N
7285	6	116865076	116865076	A	G	A	R	exonic	DSE	missense	NM_001080976:p.M918V
7285	6	118663332	118663332	C	A	C	M	intronic	SLC35F1	NA	NA
7285	6	128192300	128192300	C	T	C	Y	intronic	THEMIS	NA	NA
7285	6	132313048	132313048	C	A	C	M	intronic	CTGF	NA	NA
7285	6	135982577	135982577	G	A	G	R	ncRNA	MIR548H4	NA	NA
7285	6	140325970	140325970	G	A	G	R	intergenic	NA	NA	NA
7285	6	152796620	152796620	C	T	C	Y	intronic	SYNE1	NA	NA
7285	6	157339612	157339612	C	G	C	S	intronic	ARID1B	NA	NA
7285	6	167512028	167512028	C	T	C	Y	intronic	TCP10L2	NA	NA
7285	6	167648917	167648917	A	-	C	*/-A	exonic	UNC93A	FS_del	NM_018974:p.Q454fs
7285	7	2020840	2020840	C	T	C	Y	intronic	MAD11L	NA	NA
7285	7	20657546	20657546	G	T	G	K	intronic	ABCB5	NA	NA
7285	7	36546432	36546432	G	C	G	S	intronic	AOAH	NA	NA
7285	7	55833559	55833559	G	T	G	K	intronic	14-Sep	NA	NA
7285	7	56603832	56603832	G	A	G	R	intergenic	NA	NA	NA
7285	7	57221338	57221338	G	C	G	S	intergenic	NA	NA	NA
7285	7	62307178	62307178	G	A	G	R	intergenic	NA	NA	NA
7285	7	62798257	62798257	G	T	G	K	intergenic	NA	NA	NA
7285	7	65185648	65185648	G	T	G	K	intronic	ASL	NA	NA
7285	7	71880437	71880437	T	A	T	W	exonic	TYW1B	missense	NM_001145440:p.N297I
7285	7	73306608	73306608	C	A	C	M	exonic	RFC2	missense	NM_002914:p.E14D
7285	7	76760369	76760369	A	T	A	W	exonic	CCDC146	silent	NM_020879:p.P860P
7285	7	77235845	77235845	T	A	T	W	intronic	RSBN1L	NA	NA
7285	7	77668450	77668450	T	C	T	Y	intronic	MAGI2	NA	NA
7285	7	81552033	81552033	G	A	G	R	exonic	CACNA2D1	nonsense	NM_000722:p.R216X
7285	7	84848677	84848677	C	T	C	Y	intergenic	NA	NA	NA
7285	7	86253791	86253791	C	G	C	S	exonic	GRM3	silent	NM_000840:p.R249R
7285	7	86392909	86392909	C	T	C	Y	splicing	KIAA1324L	NA	NA
7285	7	86930032	86930032	A	T	A	W	exonic	ABCB4	silent	NM_018850:p.T88T
7285	7	88107266	88107266	C	A	C	M	intergenic	NA	NA	NA
7285	7	91550953	91550953	A	T	A	W	intronic	AKAP9	NA	NA
7285	7	92936119	92936119	C	T	C	Y	intronic	CALCR	NA	NA
7285	7	93878184	93878184	C	A	C	M	exonic	COL1A2	silent	NM_000089:p.G415G
7285	7	94067050	94067050	T	C	T	Y	intronic	SGCE	NA	NA
7285	7	94857442	94857442	T	C	T	Y	exonic	PON3	missense	NM_000940:p.D54G

7285	7	106549671	106549671	G	C	G	S	exonic	PRKAR2B	missense	NM_002736:p.D128H
7285	7	113345544	113345544	A	G	A	R	exonic	PPP1R3A	silent	NM_002711:p.P248P
7285	7	116907345	116907345	C	G	C	S	UTR5	CFTR	NA	NA
7285	7	117031118	117031118	T	C	T	Y	intronic	CFTR	NA	NA
7285	7	120752769	120752769	T	C	T	Y	splicing	WNT16	missense	NM_016087:p.W22R
7285	7	124290699	124290699	C	T	C	Y	exonic	POT1	missense	NM_015450:p.D163N
7285	7	124773101	124773101	G	T	G	K	intergenic	NA	NA	NA
7285	7	128274177	128274177	G	A	G	R	exonic	FLNC	missense	NM_001127487:p.G1424R
7285	7	133230916	133230916	G	T	G	K	exonic	EXOC4	missense	NM_021807:p.V587F
7285	7	135056760	135056760	C	A	C	M	exonic	SLC13A4	nonsense	NM_012450:p.E51X
7285	7	148578671	148578671	A	T	A	W	intronic	ZNF212	NA	NA
7285	8	2078833	2078833	G	A	G	R	intronic	MYOM2	NA	NA
7285	8	20066936	20066936	G	T	G	K	intronic	SLC18A1	NA	NA
7285	8	38217014	38217014	C	A	C	M	exonic	DDHD2	silent	NM_015214:p.L229L
7285	8	39746172	39746172	A	T	A	W	exonic	ADAM2	missense	NM_001464:p.C370S
7285	8	42144210	42144210	-	AGATA	A	*/+AGATAC	intronic	AP3M2	NA	NA
7285	8	69184231	69184231	C	G	C	S	exonic	PREX2	missense	NM_024870:p.Q989E
7285	8	69193377	69193377	C	A	C	M	exonic	PREX2	missense	NM_024870:p.T1122N
7285	8	75920032	75920032	G	A	G	R	exonic	PI15	missense	NM_015886:p.M169I
7285	8	81425924	81425924	G	C	G	S	intergenic	NA	NA	NA
7285	8	82769362	82769362	T	A	T	W	exonic	SLC10A5	missense	NM_001010893:p.Q134L
7285	8	82769363	82769363	G	A	G	R	exonic	SLC10A5	nonsense	NM_001010893:p.Q134X
7285	8	87299119	87299119	G	A	G	R	exonic	SLC7A13	missense	NM_138817:p.P292L
7285	8	88870526	88870526	G	C	G	S	intergenic	NA	NA	NA
7285	8	88954438	88954438	G	C	G	S	exonic	DCAF4L2	missense	NM_152418:p.T293S
7285	8	90870671	90870671	A	G	A	R	intronic	RIPK2	NA	NA
7285	8	91051915	91051915	C	A	C	M	exonic	NBN	missense	NM_002485:p.R250M
7285	8	95333446	95333446	C	A	C	M	exonic	GEM	missense	NM_005261:p.R197L
7285	8	95963186	95963186	A	T	A	W	intronic	CCNE2	NA	NA
7285	8	101089956	101089956	G	T	G	K	exonic	RGS22	nonsense	NM_015668:p.Y728X
7285	8	105525652	105525652	C	A	C	M	splicing	DPYS	missense	NM_001385:p.G265W
7285	8	109039549	109039549	G	T	G	K	exonic	RSPO2	missense	NM_178565:p.T184K
7285	8	113336833	113336833	C	T	C	Y	splicing	CSMD3	NA	NA
7285	8	113383314	113383314	G	C	G	S	exonic	CSMD3	missense	NM_052900:p.T2606S
7285	8	113747682	113747682	C	G	C	S	splicing	CSMD3	missense	NM_052900:p.R835T
7285	8	114057194	114057194	T	C	T	Y	intronic	CSMD3	NA	NA
7285	8	121308742	121308742	A	T	A	W	exonic	COL14A1	missense	NM_021110:p.S703C
7285	8	121362376	121362376	A	G	A	R	exonic	COL14A1	missense	NM_021110:p.K1241E
7285	8	124462164	124462164	A	G	A	R	intronic	ATAD2	NA	NA
7285	8	139220475	139220475	C	A	C	M	exonic	FAM135B	missense	NM_015912:p.Q1279H
7285	8	139680359	139680359	G	T	G	K	intronic	COL22A1	NA	NA
7285	8	139860868	139860868	A	T	A	W	intronic	COL22A1	NA	NA
7285	8	145210252	145210252	T	A	T	W	intronic	GPA1	NA	NA
7285	8	145633175	145633175	G	T	G	K	intronic	TONSL	NA	NA
7285	9	3888663	3888663	T	A	T	W	ncRNA	C9orf70	NA	NA
7285	9	6665676	6665676	G	T	G	K	intergenic	NA	NA	NA
7285	9	27195004	27195025	ATATTG	-	C	*/-	exonic	TEK	FS_del	NM_000459:p.769_776del
				CAATTG			ATATTGCAA				
				AAGAGG			TTGAAGAG				
				GCAA			GGCAA				
7285	9	32324176	32324176	G	T	G	K	intergenic	NA	NA	NA
7285	9	32620237	32620237	C	T	C	Y	exonic	TAF1L	missense	NM_153809:p.E1781K
7285	9	36664928	36664928	A	G	A	R	exonic	MELK	missense	NM_014791:p.Q591R
7285	9	37467356	37467356	A	G	A	R	intergenic	NA	NA	NA
7285	9	39155863	39155863	C	G	C	S	intronic	CNTNAP3	NA	NA
7285	9	67906873	67906873	T	C	T	Y	intergenic	NA	NA	NA
7285	9	67907127	67907127	G	T	G	K	intergenic	NA	NA	NA
7285	9	68163780	68163780	G	T	G	K	intergenic	NA	NA	NA
7285	9	73539568	73539568	C	T	C	Y	exonic	TMEM2	missense	NM_013390:p.C456Y
7285	9	75280259	75280259	C	A	C	M	intergenic	NA	NA	NA
7285	9	78797259	78797259	C	T	C	Y	intergenic	NA	NA	NA
7285	9	79145215	79145215	A	C	A	M	exonic	VPS13A	missense	NM_033305:p.N2319H
7285	9	98751630	98751630	T	A	T	W	ncRNA	HIATL2	NA	NA
7285	9	108972941	108972941	G	T	G	K	intergenic	NA	NA	NA
7285	9	121015993	121015993	A	T	A	W	intronic	DBC1	NA	NA
7285	9	121115419	121115419	C	A	C	M	exonic	DBC1	silent	NM_014618:p.L12L
7285	9	122926127	122926127	C	G	C	S	exonic	CEP110	missense	NM_007018:p.S583C
7285	9	124981081	124981081	C	T	C	Y	ncRNA	STRBP	NA	NA
7285	9	129645254	129645254	G	A	G	R	exonic	ENG	silent	NM_000118:p.C53C
7285	9	134263583	134263583	A	C	A	M	intronic	TTF1	NA	NA
7285	9	134885346	134885346	G	T	G	K	intergenic	NA	NA	NA
7285	9	134967956	134967956	C	T	C	Y	intronic	RALGDS	NA	NA
7285	9	138998989	138998989	T	C	T	Y	exonic	LCN1	missense	NM_207510:p.M67T
7285	9	139899111	139899111	A	G	A	R	intronic	CACNA1B	NA	NA
7285	10	83461	83461	G	C	G	S	exonic	TUBB8	missense	NM_001164154:p.Q219E
7285	10	6094919	6094919	T	G	T	K	intronic	IL2RA	NA	NA
7285	10	7365840	7365840	T	C	T	Y	intronic	SFMBT2	NA	NA

7285	10	7826091	7826091	C	T	C	Y	exonic	ITIH2	silent	NM_002216:p.P750P
7285	10	15100071	15100071	A	G	A	R	intergenic	NA	NA	NA
7285	10	16956337	16956337	G	T	G	K	intronic	CUBN	NA	NA
7285	10	26829991	26829991	C	A	C	M	exonic	APBB1IP	missense	NM_019043:p.A133D
7285	10	29011068	29011068	C	T	C	Y	exonic	BAMBI	missense	NM_012342:p.A172V
7285	10	35507861	35507861	A	G	A	R	exonic	CREM	silent	NM_183011:p.S69S
7285	10	37667598	37667598	A	G	A	R	intergenic	NA	NA	NA
7285	10	38383809	38383809	G	A	G	R	exonic	ZNF33A	missense	NM_006974:p.E250K
7285	10	42930047	42930047	C	T	C	Y	exonic	RET	missense	NM_020975:p.H665Y
7285	10	43420673	43420673	G	T	G	K	intergenic	NA	NA	NA
7285	10	55625528	55625528	G	T	G	K	exonic	PCDH15	missense	NM_001142766:p.P409Q
7285	10	60232938	60232938	G	A	G	R	exonic	BICC1	missense	NM_001080512:p.R704K
7285	10	60566582	60566582	A	C	A	M	intergenic	NA	NA	NA
7285	10	68196044	68196044	G	T	G	K	exonic	CTNNA3	missense	NM_001127384:p.T422N
7285	10	69420795	69420795	A	G	A	R	intronic	HERC4	NA	NA
7285	10	70625067	70625067	A	G	A	R	intronic	SUP3L1	NA	NA
7285	10	72170810	72170810	G	T	G	K	exonic	ADAMT514	nonsense	NM_080722:p.E604X
7285	10	74775033	74775033	C	A	C	M	intronic	TTC18	NA	NA
7285	10	75236018	75236018	G	C	G	S	intronic	NDST2	NA	NA
7285	10	88442364	88442364	G	C	G	S	intronic	LDB3	NA	NA
7285	10	89392512	89392512	A	-	G	*/-A	intergenic	NA	NA	NA
7285	10	95710139	95710139	G	T	G	K	ncRNA	PIPSL	NA	NA
7285	10	97800275	97800275	T	C	T	Y	intronic	CCNJ	NA	NA
7285	10	103910284	103910284	C	T	C	Y	exonic	NOLC1	silent	NM_004741:p.T395T
7285	10	106103758	106103758	C	G	C	S	intronic	CCDC147	NA	NA
7285	10	117813863	117813863	C	G	C	S	UTR3	GFRA1	NA	NA
7285	10	118304620	118304620	T	C	T	Y	intronic	PNLIP	NA	NA
7285	10	118414265	118414265	T	A	T	W	exonic	C10orf82	missense	NM_144661:p.E153V
7285	10	121388570	121388570	C	A	C	M	intergenic	NA	NA	NA
7285	10	124047284	124047286	TGA	-	-	*/-TGA	exonic	BTBD16	nonFS_del	NM_144587:p.201_202del
7285	10	131650446	131650446	G	C	G	S	exonic	EBF3	silent	NM_001005463:p.L130L
7285	11	4826314	4826314	C	T	C	Y	exonic	OR5151	missense	NM_001004758:p.G234D
7285	11	4966002	4966002	C	A	C	M	UTR5	MMP26	NA	NA
7285	11	5485576	5485576	G	A	G	R	exonic	UBQLN3	missense	NM_017481:p.H597Y
7285	11	5523043	5523043	C	G	C	S	exonic	OR52H1	missense	NM_001005289:p.G96A
7285	11	5587985	5587985	C	A	C	M	exonic	TRIM6	missense	NM_001003819:p.L298I
7285	11	5835396	5835396	A	G	A	R	exonic	OR52E8	missense	NM_001005168:p.F38S
7285	11	6005608	6005608	G	T	G	K	upstream	OR56A1	NA	NA
7285	11	6379979	6379979	G	A	G	R	exonic	APBB1	silent	NM_001164:p.L431L
7285	11	6455741	6455741	T	C	T	Y	intronic	ARFIP2	NA	NA
7285	11	19215456	19215456	G	A	G	R	exonic	E2F8	silent	NM_024680:p.D144D
7285	11	20472303	20472303	G	-	C	*/-G	exonic	PRMT3	FS_del	NM_001145166:p.T409fs
7285	11	28091661	28091661	G	C	G	S	exonic	METT5D1	missense	NM_001113528:p.M68I
7285	11	29990188	29990188	G	C	G	S	exonic	KCNA4	missense	NM_002233:p.P205R
7285	11	38426297	38426297	G	T	G	K	intergenic	NA	NA	NA
7285	11	38426640	38426640	T	A	T	W	intergenic	NA	NA	NA
7285	11	39139752	39139752	C	A	C	M	intergenic	NA	NA	NA
7285	11	40062527	40062527	C	A	C	M	intergenic	NA	NA	NA
7285	11	45848329	45848329	C	T	C	Y	exonic	CRY2	silent	NM_021117:p.I469I
7285	11	48955295	48955295	C	A	C	M	intergenic	NA	NA	NA
7285	11	49898865	49898865	A	G	A	R	intergenic	NA	NA	NA
7285	11	51292860	51292860	G	T	G	K	intergenic	NA	NA	NA
7285	11	55000158	55000158	C	A	C	M	intergenic	NA	NA	NA
7285	11	55079104	55079104	G	T	G	K	exonic	OR4C15	missense	NM_001001920:p.G249V
7285	11	55409699	55409699	G	T	G	K	exonic	SPRYD5	missense	NM_032681:p.M73I
7285	11	55438329	55438329	C	A	C	M	exonic	OR5W2	missense	NM_001001960:p.L102F
7285	11	55684185	55684185	G	C	G	S	exonic	OR8K5	missense	NM_001004058:p.S62C
7285	11	55972891	55972891	T	A	T	W	intronic	OR8U8	NA	NA
7285	11	56857645	56857645	C	A	C	M	intronic	SSRP1	NA	NA
7285	11	60224901	60224901	C	T	C	Y	intronic	MS4A8B	NA	NA
7285	11	62149981	62149981	G	A	G	R	intronic	GANAB	NA	NA
7285	11	64320402	64320402	C	T	C	Y	exonic	MAP4K2	missense	NM_004579:p.G557D
7285	11	64923947	64923947	G	C	G	S	intronic	FRMD8	NA	NA
7285	11	68320863	68320863	G	A	G	R	intronic	CPT1A	NA	NA
7285	11	69848715	69848715	C	T	C	Y	exonic	PPFIA1	silent	NM_177423:p.L161L
7285	11	71617519	71617519	C	A	C	M	exonic	INPPL1	silent	NM_001567:p.P166P
7285	11	74468058	74468058	A	G	A	R	intergenic	NA	NA	NA
7285	11	79376672	79376672	T	A	T	W	intergenic	NA	NA	NA
7285	11	80042242	80042242	A	T	A	W	intergenic	NA	NA	NA
7285	11	85113401	85113401	T	C	T	Y	exonic	SYTL2	missense	NM_206928:p.T583A
7285	11	89366734	89366734	G	T	G	K	ncRNA	TRIM53	NA	NA
7285	11	118275870	118275870	C	G	C	S	exonic	BCL9L	silent	NM_182557:p.L1124L
7285	11	120506029	120506029	G	A	G	R	exonic	TECTA	missense	NM_005422:p.G947E
7285	11	121989728	121989728	G	C	G	S	intergenic	NA	NA	NA
7285	11	123405810	123405810	A	G	A	R	exonic	OR10G8	missense	NM_001004464:p.I91V
7285	11	129280852	129280852	A	C	A	M	intronic	PRDM10	NA	NA
7285	12	1983837	1983837	C	T	C	Y	exonic	DCP1B	missense	NM_152640:p.G8S
7285	12	6334849	6334849	C	A	C	M	exonic	SCNN1A	missense	NM_001159576:p.M390I
7285	12	6334850	6334850	A	T	A	W	exonic	SCNN1A	missense	NM_001159576:p.M390K

7285	12	7450339	7450339	C	A	C	M	intronic	CD163L1	NA	NA
7285	12	7872686	7872686	G	T	G	K	exonic	SLC2A14	missense	NM_153449:p.P209Q
7285	12	8680548	8680548	G	T	G	K	intergenic	NA	NA	NA
7285	12	27034830	27034830	G	A	G	R	intronic	TM7SF3	NA	NA
7285	12	36883794	36883794	G	C	G	S	intergenic	NA	NA	NA
7285	12	38266381	38266381	G	A	G	R	intronic	ABCD2	NA	NA
7285	12	39709362	39709362	G	C	G	S	intronic	CNTN1	NA	NA
7285	12	43752553	43752553	C	A	C	M	intergenic	NA	NA	NA
7285	12	46820797	46820797	T	A	T	W	exonic	PFKM	missense	NM_000289:p.M406K
7285	12	46882728	46882728	G	T	G	K	exonic	OR10AD1	silent	NM_001004134:p.I205I
7285	12	47646379	47646379	C	A	C	M	exonic	WNT10B	missense	NM_003394:p.E312D
7285	12	48787646	48787646	T	A	T	W	exonic	GPD1	nonsense	NM_005276:p.C214X
7285	12	49146975	49146975	C	G	C	S	intronic	LARP4	NA	NA
7285	12	53810354	53810354	A	G	A	R	exonic	OR9K2	missense	NM_001005243:p.I179V
7285	12	71333185	71333185	G	T	G	K	exonic	TRHDE	missense	NM_013381:p.W944L
7285	12	74733798	74733798	G	T	G	K	intronic	NAP1L1	NA	NA
7285	12	74733800	74733800	A	G	A	R	intronic	NAP1L1	NA	NA
7285	12	79626056	79626056	C	T	C	Y	exonic	MYF6	missense	NM_002469:p.R143W
7285	12	80057121	80057121	A	G	A	R	exonic	ACSS3	silent	NM_024560:p.L242L
7285	12	83973515	83973515	A	G	A	R	exonic	LRR1Q1	silent	NM_001079910:p.Q271Q
7285	12	89871754	89871754	C	A	C	M	exonic	C12orf12	missense	NM_152638:p.E299D
7285	12	94797563	94797563	G	A	G	R	exonic	CCDC38	nonsense	NM_182496:p.Q378X
7285	12	118109201	118109201	T	C	T	Y	intronic	HSPB8	NA	NA
7285	12	120435767	120435767	C	T	C	Y	intronic	KDM2B	NA	NA
7285	12	128129149	128129149	T	A	T	W	exonic	TMEM132D	silent	NM_133448:p.T666T
7285	12	131706320	131706320	C	T	C	Y	intronic	P2RX2	NA	NA
7285	13	20792867	20792867	G	C	G	S	intergenic	NA	NA	NA
7285	13	29244396	29244396	A	T	A	W	intronic	UBL3	NA	NA
7285	13	31643360	31643360	A	G	A	R	exonic	FRY	missense	NM_023037:p.T702A
7285	13	31994291	31994291	T	C	T	Y	intronic	N4BP2L2	NA	NA
7285	13	37218440	37218440	G	A	G	R	exonic	TRPC4	silent	NM_001135955:p.N177N
7285	13	42794415	42794415	A	G	A	R	intronic	ENOX1	NA	NA
7285	13	70395844	70395844	A	T	A	W	intergenic	NA	NA	NA
7285	13	77090195	77090195	C	T	C	Y	splicing	SCEL	nonsense	NM_003843:p.R523X
7285	13	108459479	108459479	G	C	G	S	intronic	MYO16	NA	NA
7285	13	112527787	112527787	C	A	C	M	exonic	ATP11A	silent	NM_032189:p.I305I
7285	13	112820965	112820965	T	C	T	Y	exonic	F7	missense	NM_000131:p.L348P
7285	14	18184541	18184541	G	A	G	R	intergenic	NA	NA	NA
7285	14	19318753	19318753	G	A	G	R	exonic	OR4M1	silent	NM_001005500:p.L144L
7285	14	19572212	19572212	G	A	G	R	exonic	OR4K13	silent	NM_001004714:p.P182P
7285	14	36250252	36250252	T	C	T	Y	intronic	SLC25A21	NA	NA
7285	14	41466821	41466821	C	A	C	M	intergenic	NA	NA	NA
7285	14	50204394	50204394	C	T	C	Y	exonic	SAV1	silent	NM_021818:p.P14P
7285	14	58181725	58181725	T	C	T	Y	intronic	DACT1	NA	NA
7285	14	73106248	73106248	A	T	A	W	exonic	ACOT2	missense	NM_006821:p.Q184L
7285	14	73823075	73823075	G	A	G	R	ncRNA	ABCD4	NA	NA
7285	14	93664020	93664020	C	-	G	*/-C	exonic	IFI27L2	FS_del	NM_032036:p.A88fs
7285	14	94337569	94337569	G	T	G	K	intergenic	NA	NA	NA
7285	14	96412126	96412126	A	G	A	R	exonic	VRK1	missense	NM_003384:p.K359E
7285	14	100520894	100520894	A	T	A	W	ncRNA	SNORD114-2	NA	NA
7285	15	19915231	19915231	A	T	A	W	ncRNA	OR4N3P	NA	NA
7285	15	20418998	20418998	A	T	A	W	exonic	TUBGCP5	missense	NM_052903:p.Q878L
7285	15	22705758	22705758	C	A	C	M	intronic	SNRPN	NA	NA
7285	15	22706140	22706140	G	T	G	K	intronic	SNRPN	NA	NA
7285	15	26129882	26129882	T	A	T	W	exonic	HERC2	missense	NM_004667:p.Q2310H
7285	15	27154497	27154497	G	A	G	R	splicing	APBA2	NA	NA
7285	15	27313376	27313376	G	C	G	S	intronic	FAM189A1	NA	NA
7285	15	28084793	28084793	G	T	G	K	intergenic	NA	NA	NA
7285	15	32465058	32465058	G	A	G	R	ncRNA	GOLGA8A	NA	NA
7285	15	39647727	39647727	A	G	A	R	exonic	TYRO3	missense	NM_006293:p.N328D
7285	15	40243156	40243156	T	C	T	Y	exonic	VPS39	missense	NM_015289:p.I697V
7285	15	43484858	43484858	G	C	G	S	exonic	SPATA511	missense	NM_024063:p.V380L
7285	15	46835974	46835974	T	C	T	Y	exonic	CEP152	missense	NM_014985:p.I921M
7285	15	47446987	47446987	G	A	G	R	exonic	C15orf33	silent	NM_152647:p.S407S
7285	15	50400821	50400821	C	G	C	S	intronic	MYO5A	NA	NA
7285	15	51794665	51794665	T	C	T	Y	intronic	WDR72	NA	NA
7285	15	53700143	53700143	G	C	G	S	intronic	PRTG	NA	NA
7285	15	58133420	58133420	C	A	C	M	intergenic	NA	NA	NA
7285	15	60332190	60332190	A	T	A	W	intergenic	NA	NA	NA
7285	15	66791007	66791007	A	T	A	W	exonic	CORO2B	missense	NM_001190457:p.M181L
7285	15	69244656	69244656	A	G	A	R	intronic	THSD4	NA	NA
7285	15	76814293	76814293	G	A	G	R	intergenic	NA	NA	NA
7285	15	84112403	84112403	C	G	C	S	exonic	KLHL25	missense	NM_022480:p.G548A
7285	15	88785849	88785849	C	G	C	S	exonic	IQGAP1	missense	NM_003870:p.P253A
7285	15	90774346	90774346	G	T	G	K	splicing	ST8SIA2	NA	NA
7285	16	1755005	1755005	C	G	C	S	intronic	MAPK8IP3	NA	NA
7285	16	2786184	2786184	C	A	C	M	intergenic	NA	NA	NA
7285	16	3004012	3004012	C	A	C	M	exonic	CLDN9	nonsense	NM_020982:p.Y216X
7285	16	9765091	9765091	A	C	A	M	exonic	GRIN2A	missense	NM_001134407:p.W1271G

7285	16	13927978	13927978	C	T	C	Y	exonic	ERCC4	missense	NM_005236:p.R150C
7285	16	20279382	20279382	G	T	G	K	intronic	PDILT	NA	NA
7285	16	20330330	20330330	T	C	T	Y	exonic	ACSM5	missense	NM_017888:p.L8P
7285	16	20401869	20401869	T	C	T	Y	intronic	ACSM2A	NA	NA
7285	16	32309684	32309684	C	G	C	S	intergenic	NA	NA	NA
7285	16	32528718	32528718	C	A	C	M	intergenic	NA	NA	NA
7285	16	47089880	47089880	G	A	G	R	intergenic	NA	NA	NA
7285	16	49731751	49731751	C	A	C	M	exonic	SALL1	missense	NM_001127892:p.G531V
7285	16	54368282	54368282	G	C	G	S	intergenic	NA	NA	NA
7285	16	54994435	54994435	T	A	T	W	exonic	AMFR	nonsense	NM_001144:p.K313X
7285	16	56159275	56159275	G	A	G	R	exonic	GPR114	silent	NM_153837:p.Q276Q
7285	16	57133655	57133655	G	A	G	R	exonic	CNOT1	missense	NM_016284:p.P1554L
7285	16	63579651	63579651	G	C	G	S	exonic	CDH11	silent	NM_001797:p.V303V
7285	16	65779191	65779191	A	G	A	R	exonic	EXOC3L1	silent	NM_178516:p.L160L
7285	16	73541226	73541226	G	A	G	R	intronic	WDR59	NA	NA
7285	16	75950732	75950732	G	T	G	K	exonic	ADAMTS18	missense	NM_199355:p.H436N
7285	16	76614072	76614072	C	T	C	Y	exonic	CLEC3A	silent	NM_005752:p.L16L
7285	16	87398579	87398579	G	A	G	R	intronic	CDT1	NA	NA
7285	16	87399541	87399541	G	T	G	K	exonic	CDT1	missense	NM_030928:p.M227I
7285	17	7520443	7520443	A	-	G	*-/A	exonic	TP53	FS_del	NM_001126113:p.L26fs
7285	17	7622256	7622256	G	T	G	K	intronic	DNAH2	NA	NA
7285	17	8107152	8107152	G	T	G	K	splicing	PFAS	missense	NM_012393:p.V471L
7285	17	10342693	10342693	G	A	G	R	exonic	MYH1	missense	NM_005963:p.R1386C
7285	17	14189688	14189688	A	G	A	R	exonic	HS3ST3B1	stoploss SN	NM_006041:p.X391W
7285	17	30290291	30290291	T	C	T	Y	intronic	CCT6B	NA	NA
7285	17	40202810	40202810	A	T	A	W	intronic	ADAM11	NA	NA
7285	17	43272442	43272442	G	C	G	S	intronic	SCRN2	NA	NA
7285	17	50439923	50439923	C	T	C	Y	exonic	STXBP4	missense	NM_178509:p.P211L
7285	17	53924943	53924943	G	A	G	R	exonic	MTMR4	missense	NM_004687:p.P1113L
7285	17	58027619	58027619	G	C	G	S	intronic	TLK2	NA	NA
7285	17	78137519	78137519	G	A	G	R	intronic	FO XK2	NA	NA
7285	17	78383528	78383528	G	T	G	K	exonic	ZNF750	missense	NM_024702:p.P31H
7285	18	70145	70145	C	G	C	S	intergenic	NA	NA	NA
7285	18	336550	336550	G	A	G	R	exonic	COLEC12	missense	NM_130386:p.R358W
7285	18	35168979	35168979	A	G	A	R	ncRNA	LOC647946	NA	NA
7285	18	46829184	46829184	G	T	G	K	exonic	SMAD4	missense	NM_005359:p.C127F
7285	18	48846516	48846516	C	A	C	M	exonic	DCC	missense	NM_005215:p.L415I
7285	18	75760477	75760477	C	G	C	G	exonic	KCNG2	silent	NM_012283:p.A358A
7285	19	12158059	12158059	G	T	G	K	intronic	ZNF136	NA	NA
7285	19	12920689	12920689	G	A	G	R	intronic	RAD23A	NA	NA
7285	19	13854704	13854704	T	C	T	Y	exonic	C19orf57	missense	NM_024323:p.T609A
7285	19	14875116	14875116	C	T	C	Y	intergenic	NA	NA	NA
7285	19	20369973	20369973	A	T	A	W	downstream	ZNF826P	NA	NA
7285	19	21319316	21319316	C	A	C	M	intergenic	NA	NA	NA
7285	19	21350562	21350562	A	T	A	W	ncRNA	ZNF738	NA	NA
7285	19	21702622	21702622	G	A	G	R	exonic	ZNF100	missense	NM_173531:p.S111F
7285	19	21947084	21947084	T	C	T	Y	exonic	ZNF208	silent	NM_007153:p.E864E
7285	19	22155869	22155869	T	C	T	Y	exonic	ZNF676	missense	NM_001001411:p.T164A
7285	19	22660865	22660865	G	T	G	K	intergenic	NA	NA	NA
7285	19	22951726	22951726	G	A	G	R	intergenic	NA	NA	NA
7285	19	41218123	41218123	T	G	T	K	UTR3	THAP8	NA	NA
7285	19	53326247	53326247	C	G	C	S	intronic	LIG1	NA	NA
7285	19	57579861	57579861	C	A	C	M	exonic	ZNF880	missense	NM_001145434:p.Q406K
7285	19	57749605	57749605	A	G	A	R	exonic	ZNF808	missense	NM_001039886:p.T542A
7285	19	59981770	59981770	C	T	C	Y	intronic	KIR2DL1	NA	NA
7285	19	61617551	61617551	G	C	G	S	exonic	ZNF583	silent	NM_001159861:p.V54V
7285	19	62750248	62750248	G	C	G	S	exonic	ZNF550	missense	NM_001039654:p.I351M
7285	19	62993433	62993433	C	T	C	Y	intergenic	NA	NA	NA
7285	20	338561	338561	C	T	C	Y	exonic	RBCK1	missense	NM_031229:p.A20V
7285	20	1480450	1480450	C	A	C	M	exonic	SIRPD	missense	NM_178460:p.R103L
7285	20	7760895	7760895	A	G	A	R	intergenic	NA	NA	NA
7285	20	8626364	8626364	A	G	A	R	exonic	PLCB1	silent	NM_182734:p.G367G
7285	20	9337715	9337715	G	C	G	S	exonic	PLCB4	missense	NM_182797:p.R617P
7285	20	13715997	13715997	A	T	A	W	splicing	C20orf7	nonsense	NM_024120:p.R88X
7285	20	17116861	17116861	G	C	G	S	intergenic	NA	NA	NA
7285	20	21635111	21635111	G	C	G	S	exonic	PAX1	missense	NM_006192:p.V108L
7285	20	28260020	28260020	G	A	G	R	intergenic	NA	NA	NA
7285	20	30019907	30019907	T	C	T	Y	exonic	XKR7	missense	NM_001011718:p.F90L
7285	20	31137538	31137538	T	C	T	Y	exonic	C20orf186	missense	NM_182519:p.V278A
7285	20	31461635	31461635	G	T	G	K	exonic	SNTA1	silent	NM_003098:p.R402R
7285	20	31674578	31674578	C	A	C	M	intronic	CBFA2T2	NA	NA
7285	20	32792987	32792987	T	C	T	Y	exonic	NCOA6	silent	NM_014071:p.V1578V
7285	20	46758404	46758404	A	G	A	R	intronic	PREX1	NA	NA
7285	20	47045773	47045773	C	G	C	S	exonic	ARFGEF2	missense	NM_006420:p.F1056L
7285	20	49566879	49566879	G	T	G	K	exonic	NFATC2	missense	NM_001136021:p.P375T
7285	20	59945261	59945261	G	T	G	K	exonic	CDH4	silent	NM_001794:p.G872G
7285	20	60201970	60201970	G	T	G	K	exonic	GTPBP5	silent	NM_015666:p.R33R
7285	21	9966651	9966651	G	T	G	K	exonic	TPTE	missense	NM_199260:p.Q114K
7285	21	10037030	10037030	C	A	C	M	intergenic	NA	NA	NA

7285	21	10094496	10094496	G	T	G	K	intronic	BAGE	NA	NA
7285	21	21580615	21580615	G	C	G	S	intronic	NCAM2	NA	NA
7285	21	22732106	22732106	T	C	T	Y	intergenic	NA	NA	NA
7285	22	14456076	14456076	C	T	C	Y	intergenic	NA	NA	NA
7285	22	15364275	15364275	T	A	T	W	intergenic	NA	NA	NA
7285	22	15364276	15364276	T	C	T	Y	intergenic	NA	NA	NA
7285	22	19687354	19687354	C	G	C	S	ncRNA	FLJ39582	NA	NA
7285	22	20994063	20994063	G	T	G	K	ncRNA	LOC96610	NA	NA
7285	22	30918958	30918958	G	T	G	K	exonic	RFPL2	missense	NM_006605:p.H102N
7285	22	41988706	41988706	C	T	C	Y	exonic	SCUBE1	missense	NM_173050:p.G192S
7285	22	49268058	49268058	G	A	G	R	exonic	ADM2	missense	NM_024866:p.A103T
7285	22	49411471	49411471	A	-	G	*-/A	exonic	ARSA	FS_del	NM_001085427:p.F319fs
7285	X	7849828	7849828	C	A	C	M	exonic	PNPLA4	missense	NM_001172672:p.V26L
7285	X	18129924	18129924	G	T	G	K	exonic	BEND2	missense	NM_153346:p.P322Q
7285	X	18829554	18829554	G	A	G	R	exonic	PHKA2	silent	NM_000292:p.G999G
7285	X	31406370	31406370	A	G	A	R	exonic	DMD	missense	NM_004020:p.L444P
7285	X	34058124	34058124	G	A	G	R	exonic	FAM47A	silent	NM_203408:p.D731D
7285	X	37820711	37820711	T	A	T	W	intronic	SYTL5	NA	NA
7285	X	45696601	45696601	A	G	A	G	intergenic	NA	NA	NA
7285	X	48991685	48991685	C	T	C	T	exonic	CCDC22	silent	NM_014008:p.P394P
7285	X	49257714	49257714	T	G	T	K	UTR3	GAGE1	NA	NA
7285	X	49319792	49319792	G	C	G	S	intergenic	NA	NA	NA
7285	X	50069448	50069448	C	A	C	M	exonic	CCNB3	silent	NM_033031:p.T513T
7285	X	51682128	51682128	A	T	A	W	intergenic	NA	NA	NA
7285	X	53659397	53659397	C	G	C	S	intronic	HUWE1	NA	NA
7285	X	64545033	64545033	A	G	A	R	intergenic	NA	NA	NA
7285	X	74719810	74719810	C	T	C	Y	intergenic	NA	NA	NA
7285	X	83897097	83897097	G	A	G	R	intergenic	NA	NA	NA
7285	X	86777405	86777405	C	T	C	Y	exonic	KLHL4	silent	NM_019117:p.C633C
7285	X	92365968	92365968	C	T	C	Y	intergenic	NA	NA	NA
7285	X	106072678	106072678	C	T	C	Y	exonic	MORC4	missense	NM_001085354:p.G700D
7285	X	107569185	107569185	A	G	A	R	intronic	COL4A6	NA	NA
7285	X	109581237	109581237	C	A	C	M	exonic	RGAG1	missense	NM_020769:p.L246I
7285	X	118855966	118855966	C	A	C	M	exonic	UPF3B	nonsense	NM_023010:p.E349X
7285	X	120165488	120165488	A	G	A	R	intergenic	NA	NA	NA
7285	X	129177777	129177777	C	G	C	G	intronic	ZNF280C	NA	NA
7285	X	144520046	144520046	C	A	C	M	intergenic	NA	NA	NA
7285	X	150520694	150520694	G	T	G	K	exonic	PASD1	missense	NM_173493:p.G5W
7285	X	150663306	150663306	G	A	G	R	exonic	CNGA2	missense	NM_005140:p.A559T
7285	X	153829357	153829357	A	G	A	R	exonic	F8	silent	NM_000132:p.F641F
7285	Y	11784056	11784056	A	T	A	W	intergenic	NA	NA	NA
7285	Y	12011713	12011713	T	C	T	Y	intergenic	NA	NA	NA
7285	M	2555	2555	G	A	G	R	intergenic	NA	NA	NA
7313	1	9756045	9756045	T	C	T	Y	intronic	CLSTN1	NA	NA
7313	1	16598463	16598463	G	T	G	K	exonic	SPATA21	missense	NM_198546:p.R439S
7313	1	17221745	17221745	G	A	G	R	exonic	SDHB	missense	NM_003000:p.P237L
7313	1	19396789	19396789	C	A	C	M	exonic	UBR4	missense	NM_020765:p.M285I
7313	1	20886650	20886650	C	A	C	S	exonic	KIF17	missense	NM_001122819:p.A586P
7313	1	24101076	24101076	G	A	G	R	intronic	CNR2	NA	NA
7313	1	34030745	34030745	C	A	C	M	intronic	CSMD2	NA	NA
7313	1	35977688	35977688	G	A	G	R	exonic	CLSPN	missense	NM_001190481:p.A994V
7313	1	37794497	37794497	G	A	G	R	upstream	DNALI1	NA	NA
7313	1	43587500	43587500	C	G	C	S	intronic	MPL	NA	NA
7313	1	63102415	63102415	T	G	T	K	exonic	ATG4C	silent	NM_032852:p.L458L
7313	1	65428913	65428913	A	C	A	M	intronic	AK4	NA	NA
7313	1	70224525	70224525	T	A	T	W	exonic	LRRC7	missense	NM_020794:p.L229I
7313	1	75475386	75475386	C	G	C	S	intronic	SLC44A5	NA	NA
7313	1	76032631	76032631	G	C	G	S	intronic	RABGGTB	NA	NA
7313	1	85179260	85179260	G	C	G	S	exonic	MCOLN2	missense	NM_153259:p.Q284E
7313	1	96685106	96685106	C	G	C	S	intergenic	NA	NA	NA
7313	1	103152551	103152551	T	A	T	W	splicing	COL11A1	NA	NA
7313	1	103152552	103152552	A	G	A	R	intronic	COL11A1	NA	NA
7313	1	103217257	103217257	G	T	G	K	intronic	COL11A1	NA	NA
7313	1	106235102	106235102	T	A	T	W	intergenic	NA	NA	NA
7313	1	111240846	111240846	C	T	C	Y	exonic	CD53	missense	NM_000560:p.P158S
7313	1	118425697	118425697	C	T	C	Y	exonic	SPAG17	silent	NM_206996:p.L618L
7313	1	144171597	144171597	T	A	T	W	UTR5	POLR3GL	NA	NA
7313	1	148397755	148397755	G	A	G	R	exonic	PLEKH01	missense	NM_016274:p.V215M
7313	1	154104595	154104595	G	C	G	S	exonic	SYT11	missense	NM_152280:p.G84R
7313	1	155946803	155946803	C	G	C	S	intergenic	NA	NA	NA
7313	1	156413738	156413738	C	G	C	S	intergenic	NA	NA	NA
7313	1	156760968	156760968	A	G	A	R	intergenic	NA	NA	NA
7313	1	157078677	157078677	C	T	C	Y	exonic	MNDA	missense	NM_002432:p.T37I
7313	1	159762700	159762700	C	A	C	M	exonic	HSPA6	nonsense	NM_002155:p.S543X
7313	1	163780453	163780453	G	T	G	K	exonic	LRRC52	missense	NM_001005214:p.G99V
7313	1	167612560	167612560	C	T	C	Y	exonic	BLZF1	missense	NM_003666:p.L63F
7313	1	172145404	172145404	G	A	G	R	exonic	SERPINC1	silent	NM_000488:p.R354R
7313	1	172146707	172146707	A	T	A	W	intronic	SERPINC1	NA	NA
7313	1	174316912	174316912	T	C	T	Y	splicing	RFWD2	missense	NM_022457:p.S426G



7313	1	177321625	177321625	C	T	C	Y	exonic	TOR3A	missense	NM_022371:p.H205Y
7313	1	177419952	177419952	A	G	A	R	intronic	ABL2	NA	NA
7313	1	177800576	177800576	T	C	T	Y	intronic	NPHS2	NA	NA
7313	1	183058985	183058985	C	A	C	M	exonic	FAM129A	silent	NM_052966:p.T308T
7313	1	195219775	195219775	G	T	G	K	exonic	CFHR5	silent	NM_030787:p.L105L
7313	1	195288387	195288387	C	G	C	S	splicing	F13B	missense	NM_001994:p.E519Q
7313	1	195333381	195333381	G	A	G	R	intronic	ASPM	NA	NA
7313	1	195665163	195665163	G	A	G	R	intronic	CRB1	NA	NA
7313	1	215859949	215859949	T	G	T	K	exonic	GPATCH2	missense	NM_018040:p.Q191P
7313	1	216570957	216570957	T	A	T	W	exonic	RRP15	silent	NM_016052:p.R250R
7313	1	220864852	220864852	A	G	A	R	intronic	MIA3	NA	NA
7313	1	222047706	222047706	C	T	C	Y	exonic	TP53BP2	silent	NM_005426:p.V799V
7313	1	226945979	226945979	G	A	G	R	exonic	RHOU	missense	NM_021205:p.D216N
7313	1	227838831	227838831	G	T	G	K	exonic	URB2	silent	NM_014777:p.V616V
7313	1	229473156	229473156	G	T	G	K	exonic	GNPAT	missense	NM_014236:p.A437S
7313	1	232666292	232666292	T	A	T	W	exonic	TARBP1	missense	NM_005646:p.Q438L
7313	1	238374799	238374799	C	T	C	Y	intronic	FMN2	NA	NA
7313	1	239792307	239792307	G	C	G	S	intronic	KMO	NA	NA
7313	1	241802912	241802912	G	T	G	K	exonic	AKT3	missense	NM_005465:p.A253E
7313	1	246220301	246220301	C	A	C	M	ncRNA	OR2L1P	NA	NA
7313	1	246220528	246220528	G	T	G	K	ncRNA	OR2L1P	NA	NA
7313	1	246233807	246233807	A	G	A	R	intronic	OR2L13	NA	NA
7313	1	246290597	246290597	C	A	C	M	intronic	OR2L13	NA	NA
7313	1	246313562	246313562	C	A	C	M	intronic	OR2L13	NA	NA
7313	1	246410259	246410259	G	C	G	S	exonic	OR2M2	missense	NM_001004688:p.V117L
7313	2	25024173	25024173	T	A	T	W	intronic	DNAJC27	NA	NA
7313	2	26267721	26267721	G	A	G	R	exonic	HADHA	missense	NM_000182:p.R732W
7313	2	37159879	37159879	G	C	G	S	exonic	HEATR5B	missense	NM_019024:p.L76V
7313	2	38071975	38071975	A	T	A	W	intronic	FAM82A1	NA	NA
7313	2	47771470	47771470	C	A	C	M	intergenic	NA	NA	NA
7313	2	48661858	48661858	C	T	C	Y	exonic	STON1	silent	NM_006873:p.S194S
7313	2	78493582	78493582	G	C	G	S	intergenic	NA	NA	NA
7313	2	79238974	79238974	G	C	G	S	exonic	REG3A	missense	NM_138938:p.H107D
7313	2	79238975	79238975	G	T	G	K	exonic	REG3A	silent	NM_138938:p.L106L
7313	2	84858052	84858052	A	T	A	W	intronic	DNAH6	NA	NA
7313	2	86197773	86197773	A	G	A	R	exonic	PTCD3	missense	NM_017952:p.I132V
7313	2	87210695	87210695	G	T	G	K	intergenic	NA	NA	NA
7313	2	91411274	91411274	T	A	T	W	intergenic	NA	NA	NA
7313	2	104378731	104378731	G	T	G	K	ncRNA	LOC1002870	NA	NA
7313	2	113546768	113546768	G	C	G	S	UTR5	IL1F10	NA	NA
7313	2	131169504	131169504	G	C	G	S	intergenic	NA	NA	NA
7313	2	132085614	132085614	G	T	G	K	ncRNA	POTEK1	NA	NA
7313	2	135333373	135333373	C	A	C	M	exonic	ACMSD	missense	NM_138326:p.R59S
7313	2	136281421	136281421	C	A	C	M	exonic	LCT	missense	NM_002299:p.G1307V
7313	2	136803611	136803611	G	T	G	K	intergenic	NA	NA	NA
7313	2	139376191	139376191	C	A	C	M	intergenic	NA	NA	NA
7313	2	141468136	141468136	C	A	C	M	exonic	LRP1B	nonsense	NM_018557:p.G848X
7313	2	153283551	153283551	G	C	G	S	exonic	ARL6IP6	missense	NM_152522:p.R56P
7313	2	159820980	159820980	C	G	C	S	exonic	WDSUB1	missense	NM_001128213:p.E369Q
7313	2	159822617	159822617	C	G	C	S	exonic	WDSUB1	missense	NM_001128213:p.V284L
7313	2	159822697	159822697	C	A	C	M	intronic	WDSUB1	NA	NA
7313	2	160585072	160585072	G	A	G	R	intronic	PLA2R1	NA	NA
7313	2	162069915	162069915	C	A	C	M	intergenic	NA	NA	NA
7313	2	171925299	171925299	G	T	G	K	intronic	METTL8	NA	NA
7313	2	175691002	175691002	A	G	R	K	exonic	ATF2	missense	NM_001880:p.P137S
7313	2	177807179	177807179	C	G	C	S	exonic	NFE2L2	missense	NM_001145412:p.D22H
7313	2	179051474	179051474	G	C	G	S	ncRNA	MIR548N	NA	NA
7313	2	185509270	185509270	G	T	G	K	exonic	ZNF804A	missense	NM_194250:p.S301I
7313	2	189056359	189056359	A	C	A	M	intronic	GULP1	NA	NA
7313	2	189648475	189648475	C	T	C	Y	intronic	COL5A2	NA	NA
7313	2	209001127	209001127	G	T	G	K	intronic	PTH2R	NA	NA
7313	2	209752301	209752301	G	C	G	S	intergenic	NA	NA	NA
7313	2	210876501	210876501	T	A	T	W	intronic	MYL1	NA	NA
7313	2	241714553	241714553	C	A	C	M	exonic	PASK	missense	NM_015148:p.C817F
7313	3	9940689	9940689	G	A	G	R	exonic	IL17RC	missense	NM_032732:p.H234Q
7313	3	18394629	18394629	C	A	C	M	intronic	SATB1	NA	NA
7313	3	38735180	38735180	C	A	C	M	exonic	SCN10A	missense	NM_006514:p.A1217S
7313	3	46376283	46376283	C	G	C	S	exonic	CCR2	silent	NM_001123041:p.L351L
7313	3	47280936	47280936	T	G	T	K	intronic	KIF9	NA	NA
7313	3	86015129	86015129	A	T	A	W	splicing	CADM2	NA	NA
7313	3	95075874	95075874	C	A	C	M	exonic	PROS1	missense	NM_000313:p.G646C
7313	3	95216660	95216660	C	G	C	S	exonic	STX19	missense	NM_001001850:p.E48D
7313	3	95277694	95277694	A	T	A	W	intronic	NSUN3	NA	NA
7313	3	97869674	97869674	G	T	G	K	intergenic	NA	NA	NA
7313	3	99370213	99370213	T	C	T	Y	upstream	OR5H15	NA	NA
7313	3	99860272	99860272	C	A	C	M	intergenic	NA	NA	NA
7313	3	103056536	103056536	A	G	A	R	intronic	NFKBIZ	NA	NA
7313	3	109006846	109006846	C	T	C	Y	intronic	BBX	NA	NA
7313	3	109958594	109958594	A	G	A	R	splicing	RETNLB	NA	NA

7313	3	110305434	110305434	C	A	C	M	exonic	MORC1	missense	NM_014429:p.G59W
7313	3	111884652	111884652	C	A	C	M	intergenic	NA	NA	NA
7313	3	120130116	120130116	G	C	G	S	exonic	IGSF11	nonsense	NM_152538:p.Y117X
7313	3	122452357	122452357	A	T	A	W	intronic	STXBP5L	NA	NA
7313	3	122583057	122583057	G	A	G	R	exonic	STXBP5L	missense	NM_014980:p.V883I
7313	3	125692946	125692946	T	A	T	W	exonic	KALRN	missense	NM_001024660:p.N1556K
7313	3	130730373	130730373	A	T	A	W	exonic	RHO	missense	NM_000539:p.Q36L
7313	3	132363869	132363869	T	C	T	Y	intronic	NEK11	NA	NA
7313	3	133665134	133665134	G	T	G	K	intronic	DNAJC13	NA	NA
7313	3	139599043	139599043	G	C	G	S	intronic	MRAS	NA	NA
7313	3	152555605	152555605	A	T	A	W	exonic	MED12L	missense	NM_053002:p.D767V
7313	3	156347753	156347753	G	T	G	K	intronic	MME	NA	NA
7313	3	158695645	158695645	C	T	C	Y	intronic	VEPH1	NA	NA
7313	3	166182882	166182882	G	T	G	K	exonic	SI	missense	NM_001041:p.T1753K
7313	3	166233100	166233100	G	T	G	K	exonic	SI	silent	NM_001041:p.I880I
7313	3	180824488	180824488	T	A	T	W	exonic	NDUFB5	missense	NM_001199957:p.I127N
7313	3	187918160	187918160	C	A	C	M	exonic	KNG1	missense	NM_000893:p.N45K
7313	3	188925329	188925329	G	C	G	S	ncRNA	LOC1001316	NA	NA
7313	3	188925331	188925331	C	T	C	Y	ncRNA	LOC1001316	NA	NA
7313	3	192419548	192419548	A	T	A	W	intronic	OSTN	NA	NA
7313	3	194355923	194355923	G	C	G	S	intergenic	NA	NA	NA
7313	4	2847554	2847554	G	A	G	R	exonic	ADD1	silent	NM_014189:p.E38E
7313	4	48741575	48741575	G	T	G	K	exonic	CWH43	missense	NM_025087:p.D607Y
7313	4	48817707	48817707	T	A	T	W	intergenic	NA	NA	NA
7313	4	56425132	56425132	T	C	T	Y	intronic	EXOC1	NA	NA
7313	4	58664246	58664246	C	A	C	M	intergenic	NA	NA	NA
7313	4	63898420	63898420	C	A	C	M	intergenic	NA	NA	NA
7313	4	72850093	72850093	C	A	C	M	exonic	GC	missense	NM_000583:p.Q131H
7313	4	77879581	77879581	C	T	C	Y	exonic	SHROOM3	missense	NM_020859:p.R411W
7313	4	88796634	88796634	G	T	G	K	intronic	DMP1	NA	NA
7313	4	111759101	111759101	G	T	G	K	exonic	PITX2	missense	NM_000325:p.P202T
7313	4	116217169	116217169	C	A	C	M	exonic	NDST4	missense	NM_022569:p.S158I
7313	4	117184231	117184231	C	A	C	M	intergenic	NA	NA	NA
7313	4	120396971	120396971	G	A	G	R	intronic	USP53	NA	NA
7313	4	122177037	122177037	G	T	G	K	exonic	C4orf31	silent	NM_024574:p.V513V
7313	4	122186233	122186233	G	C	G	S	intronic	C4orf31	NA	NA
7313	4	123328052	123328052	G	T	G	K	exonic	KIAA1109	nonsense	NM_015312:p.E188X
7313	4	123422327	123422327	A	G	A	R	exonic	KIAA1109	silent	NM_015312:p.P2995P
7313	4	136187408	136187408	G	T	G	K	intergenic	NA	NA	NA
7313	4	137495908	137495908	C	A	C	M	intergenic	NA	NA	NA
7313	4	155726590	155726590	C	A	C	M	exonic	FGA	nonsense	NM_000508:p.E481X
7313	4	156354606	156354606	A	G	A	R	exonic	NPY2R	missense	NM_000910:p.Y22C
7313	4	158476344	158476344	T	C	T	Y	exonic	GRIA2	silent	NM_001083620:p.C399C
7313	4	185915754	185915754	G	A	G	R	intronic	ACSL1	NA	NA
7313	4	189302330	189302330	C	T	C	Y	intronic	TRIML1	NA	NA
7313	4	189507791	189507791	C	G	C	S	intergenic	NA	NA	NA
7313	5	918727	918727	C	G	C	S	ncRNA	BRD9	NA	NA
7313	5	1134653	1134653	G	A	G	R	intronic	SLC12A7	NA	NA
7313	5	3652403	3652403	C	G	C	S	exonic	IRX1	missense	NM_024337:p.A114G
7313	5	19874647	19874647	G	C	G	S	exonic	CDH18	missense	NM_001167667:p.P69R
7313	5	21819255	21819255	C	A	C	M	exonic	CDH12	missense	NM_004061:p.Q454H
7313	5	24534448	24534448	A	G	A	R	intronic	CDH10	NA	NA
7313	5	29038278	29038278	C	T	C	Y	intergenic	NA	NA	NA
7313	5	35809811	35809811	G	T	G	K	exonic	SPEF2	nonsense	NM_024867:p.E1337X
7313	5	35896799	35896799	T	C	T	Y	exonic	IL7R	silent	NM_002185:p.C57C
7313	5	38961181	38961181	T	A	T	W	exonic	OSMR	silent	NM_003999:p.G721G
7313	5	45302989	45302989	C	A	C	M	exonic	HCN1	missense	NM_021072:p.R581I
7313	5	50147087	50147087	C	T	C	Y	exonic	PARP8	missense	NM_001178056:p.A547V
7313	5	55091882	55091882	C	A	C	M	intronic	DDX4	NA	NA
7313	5	63292794	63292794	G	C	G	S	exonic	HTR1A	missense	NM_000524:p.P170R
7313	5	65141443	65141443	G	T	G	K	intronic	NLN	NA	NA
7313	5	87508835	87508835	C	A	C	M	intergenic	NA	NA	NA
7313	5	107088818	107088818	T	A	T	W	intergenic	NA	NA	NA
7313	5	107090554	107090554	A	G	A	R	intergenic	NA	NA	NA
7313	5	112427765	112427765	T	C	T	Y	splicing	MCC	NA	NA
7313	5	118600890	118600890	A	G	A	R	intronic	DMXL1	NA	NA
7313	5	122040283	122040283	C	A	C	M	intergenic	NA	NA	NA
7313	5	127698940	127698940	C	A	C	M	intronic	FBN2	NA	NA
7313	5	128392079	128392079	T	G	T	K	intronic	SLC27A6	NA	NA
7313	5	131979679	131979679	-	T	A	*/+T	exonic	RAD50	FS_ins	NM_005732:p.H1041fs
7313	5	140168267	140168267	C	A	C	M	exonic	PCDHA4	silent	NM_018907:p.A437A
7313	5	175950038	175950038	C	G	C	S	exonic	CDHR2	missense	NM_001171976:p.I1120M
7313	5	176328783	176328783	C	A	C	M	exonic	UIMC1	silent	NM_001199298:p.P193P
7313	5	179157906	179157906	G	A	G	R	ncRNA	MIR1229	NA	NA
7313	6	24594282	24594282	C	T	C	Y	splicing	GPLD1	silent	NM_001503:p.E51E
7313	6	26215662	26215662	C	A	C	M	UTR3	HIST1H1T	NA	NA
7313	6	26610207	26610207	C	G	C	S	intronic	BTN1A1	NA	NA
7313	6	28580099	28580099	G	C	G	S	exonic	GPX6	missense	NM_182701:p.S205R
7313	6	41358148	41358148	G	A	G	R	exonic	TREM1	silent	NM_018643:p.H123H

7313	6	46874299	46874299	C	T	C	Y	intronic	MEP1A	NA	NA	
7313	6	49191456	49191456	G	T	G	K	intergenic	NA	NA	NA	
7313	6	70120888	70120888	C	A	C	M	exonic	BAI3	missense	NM_001704:p.P1168T	
7313	6	76661626	76661626	A	T	A	W	intronic	MYO6	NA	NA	
7313	6	76717483	76717483	G	A	G	R	exonic	IMPG1	missense	NM_001563:p.A447V	
7313	6	81323408	81323408	C	A	C	M	intergenic	NA	NA	NA	
7313	6	81323583	81323583	C	A	C	M	intergenic	NA	NA	NA	
7313	6	86280535	86280535	A	G	A	R	exonic	SNX14	silent	NM_020468:p.R790R	
7313	6	90661589	90661589	A	T	A	W	exonic	GJA10	silent	NM_032602:p.I227I	
7313	6	99334914	99334914	T	C	T	Y	intergenic	NA	NA	NA	
7313	6	99924304	99924304	C	A	C	M	exonic	COQ3	missense	NM_017421:p.V335F	
7313	6	106642943	106642943	G	T	G	K	exonic	PRDM1	missense	NM_001198:p.G73C	
7313	6	111286980	111286981	GC	-	G	*/-GC	intergenic	NA	NA	NA	
7313	6	117832287	117832287	G	A	G	R	intronic	ROS1	NA	NA	
7313	6	132144166	132144166	C	G	C	S	intergenic	NA	NA	NA	
7313	6	134345445	134345445	G	T	G	K	exonic	TBPL1	missense	NM_004865:p.W61L	
7313	6	137561032	137561032	A	G	A	R	exonic	IFNGR1	silent	NM_000416:p.N433N	
7313	6	139206064	139206064	A	C	A	M	intronic	ECT2L	NA	NA	
7313	6	151831438	151831438	A	T	A	W	exonic	C6orf211	missense	NM_024573:p.T276S	
7313	6	152782416	152782416	A	T	A	W	exonic	SYNE1	missense	NM_182961:p.V1801E	
7313	6	152826384	152826384	C	A	C	M	intronic	SYNE1	NA	NA	
7313	6	165633784	165633784	T	G	T	K	intronic	C6orf118	NA	NA	
7313	7	11826464	11826464	G	T	G	K	intronic	THSD7A	NA	NA	
7313	7	21227243	21227243	C	A	C	M	intergenic	NA	NA	NA	
7313	7	23315572	23315572	G	T	G	K	exonic	C7orf30	missense	NM_138446:p.R197L	
7313	7	31831101	31831101	G	T	G	K	exonic	PDE1C	silent	NM_001191059:p.P437P	
7313	7	38398016	38398016	C	A	C	M	exonic	AMPH	missense	NM_139316:p.S537I	
7313	7	38433060	38433060	A	G	A	R	intronic	AMPH	NA	NA	
7313	7	44123897	44123897	G	A	G	R	intronic	POLD2	NA	NA	
7313	7	44973999	44973999	C	T	C	Y	intronic	MYO1G	NA	NA	
7313	7	55680896	55680896	C	G	C	S	intergenic	NA	NA	NA	
7313	7	56264909	56264909	G	C	G	S	intergenic	NA	NA	NA	
7313	7	57663525	57663525	A	G	A	R	intergenic	NA	NA	NA	
7313	7	63805342	63805342	G	T	G	K	exonic	ZNF107	nonsense	NM_016220:p.E409X	
7313	7	65608442	65608442	C	T	C	Y	intergenic	NA	NA	NA	
7313	7	67357975	67357975	C	A	C	M	intergenic	NA	NA	NA	
7313	7	74807935	74807935	C	T	C	Y	ncRNA	SPDYE8P	NA	NA	
7313	7	80128362	80128362	A	T	A	W	exonic	CD36	missense	NM_000072:p.N110I	
7313	7	83995722	83995722	T	A	T	W	intergenic	NA	NA	NA	
7313	7	87916438	87916438	G	T	G	K	intergenic	NA	NA	NA	
7313	7	88803465	88803465	C	G	C	S	exonic	ZNF804B	missense	NM_181646:p.P1078R	
7313	7	92823159	92823159	G	T	G	K	exonic	CCDC132	missense	NM_017667:p.C869F	
7313	7	95004926	95004926	C	G	C	S	exonic	ASB4	missense	NM_016116:p.C400W	
7313	7	99809207	99809207	A	G	A	R	UTR5	PILRA	NA	NA	
7313	7	104097106	104097106	G	A	G	R	intronic	LHFPL3	NA	NA	
7313	7	107204213	107204213	C	T	C	Y	exonic	SLC26A3	missense	NM_000111:p.E533K	
7313	7	110550783	110550783	G	T	G	K	exonic	LRRN3	missense	NM_001099660:p.S240I	
7313	7	111883293	111883293	G	T	G	K	splicing	IFRD1	missense	NM_001550:p.G67V	
7313	7	116868005	116868005	T	C	T	Y	intergenic	NA	NA	NA	
7313	7	117080089	117080089	T	A	T	W	intronic	CFTR	NA	NA	
7313	7	124191326	124191326	C	A	C	M	exonic	GPR37	missense	NM_005302:p.C314F	
7313	7	125960819	125960819	C	A	C	M	exonic	GRM8	missense	NM_001127323:p.G618V	
7313	7	126197115	126197115	C	T	C	Y	ncRNA	GRM8	NA	NA	
7313	7	126197116	126197116	G	C	G	S	ncRNA	GRM8	NA	NA	
7313	7	136822907	136822907	G	T	G	K	exonic	DGKI	missense	NM_004717:p.R791S	
7313	7	137451937	137451937	G	T	G	K	exonic	AKR1D1	missense	NM_001190906:p.D283Y	
7313	7	137776651	137776651	C	A	C	M	intergenic	NA	NA	NA	
7313	7	139694936	139694936	G	A	G	R	exonic	SLC37A3	missense	NM_032295:p.A328V	
7313	7	142170787	142170787	C	A	C	M	intergenic	NA	NA	NA	
7313	7	142170796	142170796	T	C	T	Y	intergenic	NA	NA	NA	
7313	7	143402797	143402797	C	G	C	S	exonic	OR2A25	silent	NM_001004488:p.L184L	
7313	7	151658629	151658629	C	-	G	*/-C	exonic	MLL3	FS_del	NM_170606:p.A127fs	
7313	7	158519963	158519963	A	T	A	W	intronic	VIPR2	NA	NA	
7313	8	8271840	8271840	C	-	A	*/-C	exonic	SGK223	FS_del	NM_001080826:p.V497fs	
7313	8	15525055	15525055	G	A	G	R	exonic	TUSC3	silent	NM_178234:p.K78K	
7313	8	16022442	16022442	C	A	C	M	exonic	MSR1	nonsense	NM_138715:p.E360X	
7313	8	27665969	27665969	C	T	C	Y	exonic	CCDC25	missense	NM_018246:p.V75M	
7313	8	43245697	43245697	T	C	T	Y	intergenic	NA	NA	NA	
7313	8	51469289	51469289	T	A	T	W	intronic	SNTG1	NA	NA	
7313	8	59188415	59188415	G	T	G	K	intronic	FAM110B	NA	NA	
7313	8	68299875	68299875	C	T	C	Y	intronic	ARFGEF1	NA	NA	
7313	8	68340991	68340991	C	A	C	M	exonic	ARFGEF1	nonsense	NM_006421:p.E643X	
7313	8	69174558	69174558	C	G	C	S	exonic	PREX2	missense	NM_024870:p.L881V	
7313	8	69596796	69596796	A	T	A	W	intronic	C8orf34	NA	NA	
7313	8	71658116	71658116	A	G	A	R	intronic	TRAM1	NA	NA	
7313	8	88870960	88870960	A	T	A	W	intergenic	NA	NA	NA	
7313	8	93068375	93068375	C	A	C	M	splicing	RUNX1T1	silent	NM_001198679:p.G390G	
7313	8	101345770	101345770	C	G	C	S	intronic	RNF19A	NA	NA	
7313	8	107792224	107792224	A	G	A	R	intronic	OXR1	NA	NA	

7313	8	127154495	127154495	C	A	C	M	intergenic	NA	NA	NA
7313	8	141811847	141811847	G	A	G	R	intronic	PTK2	NA	NA
7313	9	14194294	14194294	T	C	T	Y	intronic	NFIB	NA	NA
7313	9	17437212	17437212	A	T	A	W	intronic	CNTLN	NA	NA
7313	9	38517586	38517586	C	T	C	Y	intergenic	NA	NA	NA
7313	9	67906808	67906808	C	T	C	Y	intergenic	NA	NA	NA
7313	9	72632435	72632435	C	G	C	S	intronic	TRPM3	NA	NA
7313	9	73550195	73550195	G	C	G	S	exonic	TMEM2	missense	NM_001135820:p.S198C
7313	9	73812708	73812708	G	T	G	K	intergenic	NA	NA	NA
7313	9	89546252	89546252	A	T	A	W	intergenic	NA	NA	NA
7313	9	90231196	90231196	C	G	C	S	UTR5	SPIN1	NA	NA
7313	9	94217469	94217469	A	T	A	W	exonic	OMD	missense	NM_005014:p.F351Y
7313	9	113449301	113449301	C	T	C	Y	exonic	DNAJC25	missense	NM_001015882:p.P144S
7313	9	116650608	116650608	G	T	G	K	intergenic	NA	NA	NA
7313	9	122959711	122959711	C	T	C	Y	intronic	CEP110	NA	NA
7313	9	129516488	129516488	G	A	G	R	exonic	PTRH1	silent	NM_001002913:p.L151L
7313	9	130816934	130816934	C	A	C	M	exonic	SH3GLB2	silent	NM_020145:p.T135T
7313	10	393838	393838	G	A	G	R	exonic	DIP2C	missense	NM_014974:p.S945F
7313	10	13239289	13239289	A	T	A	W	intergenic	NA	NA	NA
7313	10	14612398	14612398	G	C	G	S	exonic	FAM107B	missense	NM_031453:p.P198A
7313	10	17905185	17905185	G	A	G	R	exonic	MRC1	silent	NM_002438:p.Q56Q
7313	10	26552794	26552794	C	A	C	M	intronic	GAD2	NA	NA
7313	10	26552795	26552795	C	A	C	M	intronic	GAD2	NA	NA
7313	10	27742416	27742416	C	T	C	Y	exonic	PTCHD3	missense	NM_001034842:p.R257K
7313	10	31849844	31849844	G	A	G	R	exonic	ZEB1	silent	NM_001128128:p.G509G
7313	10	38409512	38409512	C	A	C	M	intergenic	NA	NA	NA
7313	10	38505032	38505032	G	T	G	K	ncRNA	LOC1001290	NA	NA
7313	10	39022081	39022081	T	C	T	Y	intergenic	NA	NA	NA
7313	10	39022225	39022225	A	T	A	W	intergenic	NA	NA	NA
7313	10	42526705	42526705	G	T	G	K	intergenic	NA	NA	NA
7313	10	42612299	42612299	A	G	A	R	exonic	BMS1	missense	NM_014753:p.E534G
7313	10	42974158	42974158	C	G	C	S	intronic	CSGALNACT2	NA	NA
7313	10	49298425	49298425	A	T	A	W	intronic	MAPK8	NA	NA
7313	10	52273795	52273795	G	T	G	K	exonic	A1CF	silent	NM_001198820:p.R73R
7313	10	60713113	60713113	C	A	C	M	intronic	FAM13C	NA	NA
7313	10	65474878	65474878	C	T	C	Y	intergenic	NA	NA	NA
7313	10	86310180	86310180	T	C	T	Y	intergenic	NA	NA	NA
7313	10	88604425	88604425	C	T	C	Y	intronic	BMPR1A	NA	NA
7313	10	98406684	98406684	A	G	A	R	intronic	PIK3AP1	NA	NA
7313	10	100179369	100179369	G	A	G	R	exonic	HPS1	silent	NM_182639:p.L296L
7313	10	102728399	102728399	G	A	G	R	UTR3	MRPL43	NA	NA
7313	10	102728963	102728963	G	A	G	R	exonic	SEMA4G	missense	NM_017893:p.A310T
7313	10	108327262	108327262	G	C	G	S	exonic	SORCS1	missense	NM_052918:p.P1138R
7313	10	108329143	108329143	T	A	T	W	exonic	SORCS1	silent	NM_001013031:p.A1115A
7313	10	115794267	115794267	T	C	T	Y	exonic	ADRB1	missense	NM_000684:p.F129S
7313	10	118305016	118305016	C	G	C	S	intronic	PNLIP	NA	NA
7313	11	393681	393681	-	G	C	*/+G	exonic	PKP3	FS_ins	NM_007183:p.R663fs
7313	11	1263862	1263862	C	T	C	Y	exonic	TOLLIP	missense	NM_019009:p.V186M
7313	11	4189653	4189653	T	A	T	W	intergenic	NA	NA	NA
7313	11	4826819	4826819	G	A	G	R	exonic	OR51S1	missense	NM_001004758:p.P66S
7313	11	6106547	6106547	C	A	C	M	intergenic	NA	NA	NA
7313	11	6772876	6772876	C	A	C	M	exonic	OR6A2	missense	NM_003696:p.G214W
7313	11	17413970	17413970	A	T	A	W	intronic	ABCC8	NA	NA
7313	11	18209665	18209665	G	A	G	R	exonic	SAA2-SAA4	missense	NM_001199744:p.P196L
7313	11	22291403	22291403	G	T	G	K	intergenic	NA	NA	NA
7313	11	26405175	26405175	T	C	T	Y	intronic	ANO3	NA	NA
7313	11	27335610	27335610	T	C	T	Y	exonic	CCDC34	silent	NM_080654:p.P138P
7313	11	40094077	40094077	G	C	G	S	exonic	LRRC4C	silent	NM_020929:p.T114T
7313	11	40094292	40094292	G	C	G	S	exonic	LRRC4C	missense	NM_020929:p.R43G
7313	11	46523715	46523715	G	C	G	S	intronic	AMBRA1	NA	NA
7313	11	47267660	47267660	A	T	A	W	intronic	MADD	NA	NA
7313	11	48969928	48969928	C	G	C	S	intergenic	NA	NA	NA
7313	11	49876904	49876904	C	A	C	M	intergenic	NA	NA	NA
7313	11	54956399	54956399	T	C	T	Y	intergenic	NA	NA	NA
7313	11	55539848	55539848	C	A	C	M	intergenic	NA	NA	NA
7313	11	55647079	55647079	G	A	G	R	exonic	OR8H3	missense	NM_001005201:p.V219M
7313	11	55882131	55882131	C	G	C	S	intergenic	NA	NA	NA
7313	11	55884445	55884445	C	A	C	M	exonic	OR8J1	silent	NM_001005205:p.T49T
7313	11	55986861	55986861	A	G	A	R	exonic	OR5M9	missense	NM_001004743:p.I198T
7313	11	57816754	57816754	C	T	C	Y	intergenic	NA	NA	NA
7313	11	58233865	58233865	G	T	G	K	exonic	GLYAT	missense	NM_201648:p.H281N
7313	11	58946080	58946080	C	T	C	Y	exonic	OR5A2	missense	NM_001001954:p.R308K
7313	11	60826601	60826601	G	A	G	R	intronic	DDB1	NA	NA
7313	11	64270865	64270865	C	A	C	M	intronic	PYGM	NA	NA
7313	11	64271155	64271155	C	T	C	Y	intronic	PYGM	NA	NA
7313	11	64452496	64452496	G	C	G	S	intronic	PPP2R5B	NA	NA
7313	11	64581430	64581430	G	A	G	R	exonic	NAALADL1	missense	NM_005468:p.R198C
7313	11	65407278	65407278	T	A	T	W	exonic	CTSW	missense	NM_001335:p.V276E
7313	11	67007182	67007182	G	T	G	K	UTR5	AIP	NA	NA

7313	11	68124317	68124317	G	T	G	K	intronic	PPP6R3	NA	NA	
7313	11	68703123	68703123	-	GAAA	G	*/+GAAA	intergenic	NA	NA	NA	
7313	11	75580364	75580364	T	C	T	Y	exonic	WNT11	missense	NM_004626:p.K261R	
7313	11	89588070	89588070	C	A	C	M	intronic	CHORDC1	NA	NA	
7313	11	103413013	103413013	C	A	C	M	exonic	DDI1	missense	NM_001001711:p.P85T	
7313	11	107114148	107114148	G	C	G	S	intergenic	NA	NA	NA	
7313	11	113307556	113307556	G	T	G	K	intronic	HTR3B	NA	NA	
7313	11	122353797	122353797	A	G	A	R	exonic	BSX	missense	NM_001098169:p.F158L	
7313	11	122353818	122353818	G	A	G	R	intronic	BSX	NA	NA	
7313	11	123319221	123319221	G	T	G	K	exonic	OR6T1	missense	NM_001005187:p.R179S	
7313	11	123856948	123856948	G	A	G	R	intergenic	NA	NA	NA	
7313	11	129307205	129307205	A	T	A	W	splicing	PRDM10	NA	NA	
7313	12	841543	841543	C	T	C	Y	exonic	WNK1	missense	NM_018979:p.S662F	
7313	12	864919	864919	A	T	A	W	exonic	WNK1	missense	NM_018979:p.Q1563L	
7313	12	6089903	6089903	C	T	C	Y	exonic	VWF	missense	NM_000552:p.G144S	
7313	12	8704648	8704648	G	A	G	R	intronic	MFAP5	NA	NA	
7313	12	12612476	12612476	G	A	G	R	intergenic	NA	NA	NA	
7313	12	13608055	13608055	C	G	C	S	exonic	GRIN2B	silent	NM_000834:p.G1128G	
7313	12	19133660	19133660	C	G	C	S	intergenic	NA	NA	NA	
7313	12	19985561	19985561	G	T	G	K	intergenic	NA	NA	NA	
7313	12	20677893	20677893	G	T	G	K	splicing	PDE3A	NA	NA	
7313	12	21903856	21903856	C	T	C	Y	exonic	ABCC9	silent	NM_020298:p.L776L	
7313	12	22688398	22688398	C	G	C	S	intronic	ETNK1	NA	NA	
7313	12	24962248	24962248	C	T	C	Y	intronic	BCAT1	NA	NA	
7313	12	36883550	36883550	C	-	T	*/-C	intergenic	NA	NA	NA	
7313	12	37984960	37984960	C	A	C	M	exonic	KIF21A	missense	NM_017641:p.C1484F	
7313	12	43743770	43743770	T	A	T	W	ncRNA	RACGAP1P	NA	NA	
7313	12	46421594	46421594	C	T	C	Y	exonic	RAPGEF3	silent	NM_001098532:p.E586E	
7313	12	47206182	47206182	C	A	C	M	exonic	OR8S1	silent	NM_001005203:p.V167V	
7313	12	54149865	54149865	C	A	C	M	exonic	OR6C70	nonsense	NM_001005499:p.E109X	
7313	12	56293707	56293707	A	G	A	R	intronic	ARHGEF25	NA	NA	
7313	12	61240537	61240537	G	T	G	K	splicing	MON2	NA	NA	
7313	12	65002760	65002760	G	T	G	K	intronic	HELB	NA	NA	
7313	12	66932785	66932785	C	G	C	S	intronic	IL22	NA	NA	
7313	12	72850894	72850894	G	A	G	R	intergenic	NA	NA	NA	
7313	12	74023956	74023956	T	A	T	W	exonic	GLIPR1L1	missense	NM_152779:p.C131S	
7313	12	80916532	80916532	C	A	C	M	intergenic	NA	NA	NA	
7313	12	94939080	94939080	T	C	T	Y	intronic	LTA4H	NA	NA	
7313	12	101066393	101066393	C	G	C	S	intronic	C12orf48	NA	NA	
7313	12	128750382	128750382	G	A	G	R	exonic	TMEM132D	silent	NM_133448:p.T298T	
7313	12	129396255	129396255	C	A	C	M	exonic	PIWIL1	silent	NM_001190971:p.L65L	
7313	12	129842349	129842349	G	T	G	K	UTR3	STX2	NA	NA	
7313	13	25708176	25708176	-	T	G	*/+T	intergenic	NA	NA	NA	
7313	13	30014016	30014016	T	G	T	K	intergenic	NA	NA	NA	
7313	13	37051518	37051518	T	A	T	W	intronic	POSTN	NA	NA	
7313	13	37218230	37218230	C	T	C	Y	exonic	TRPC4	silent	NM_001135955:p.Q247Q	
7313	13	51446909	51446909	C	G	C	S	exonic	ATP7B	missense	NM_000053:p.E150Q	
7313	13	66103383	66103383	G	T	G	K	exonic	PCDH9	missense	NM_203487:p.D1100E	
7313	13	93478057	93478057	C	A	C	M	exonic	GPC6	missense	NM_005708:p.T262N	
7313	14	18538668	18538668	G	T	G	K	intergenic	NA	NA	NA	
7313	14	18888040	18888040	A	G	A	R	intergenic	NA	NA	NA	
7313	14	19458885	19458885	T	A	T	W	exonic	OR4K5	missense	NM_001005483:p.F94I	
7313	14	19762389	19762389	G	T	G	K	exonic	OR11H6	silent	NM_001004480:p.G227G	
7313	14	20014633	20014633	A	G	A	R	UTR3	PNP	NA	NA	
7313	14	20094643	20094643	A	T	A	W	exonic	RNASE9	nonsense	NM_001110358:p.C147X	
7313	14	23642247	23642247	G	T	G	K	exonic	PCK2	missense	NM_004563:p.G471W	
7313	14	23747218	23747218	G	C	G	S	UTR3	TSSK4	NA	NA	
7313	14	29138592	29138592	C	A	C	M	intronic	PRKD1	NA	NA	
7313	14	33332994	33332994	C	A	C	M	exonic	NPAS3	missense	NM_173159:p.L419I	
7313	14	38631577	38631577	T	A	T	W	exonic	SEC23A	silent	NM_006364:p.P95P	
7313	14	49155225	49155225	C	T	C	Y	UTR3	RPL36AL	NA	NA	
7313	14	61401771	61401771	G	A	G	R	intergenic	NA	NA	NA	
7313	14	63263761	63263761	T	C	T	Y	exonic	SGPP1	missense	NM_030791:p.M219V	
7313	14	67326121	67326121	C	G	C	S	intronic	ZFYVE26	NA	NA	
7313	14	69783942	69783942	A	C	A	M	ncRNA	ADAM21P1	NA	NA	
7313	14	74425521	74425521	A	T	A	W	ncRNA	DLST	NA	NA	
7313	14	74643145	74643145	G	A	G	R	exonic	NEK9	silent	NM_033116:p.L447L	
7313	14	91970046	91970046	G	T	G	K	exonic	SLC24A4	missense	NM_153647:p.K93N	
7313	14	91990226	91990226	G	C	G	S	intronic	SLC24A4	NA	NA	
7313	14	92751070	92751070	T	G	T	K	exonic	UBR7	missense	NM_175748:p.F162V	
7313	14	94124126	94124126	C	T	C	Y	intronic	SERPINA5	NA	NA	
7313	14	100434044	100434044	G	C	G	S	ncRNA	MEG8	NA	NA	
7313	14	101516242	101516242	A	G	A	R	intronic	DYNC1H1	NA	NA	
7313	14	102875125	102875125	C	T	C	Y	intronic	EIF5	NA	NA	
7313	14	104684768	104684768	C	G	C	S	exonic	JAG2	missense	NM_002226:p.G807R	
7313	15	18343816	18343816	C	T	C	Y	intergenic	NA	NA	NA	
7313	15	21362782	21362782	C	G	C	S	exonic	MKRN3	missense	NM_005664:p.R254G	
7313	15	22881743	22881743	G	A	G	R	downstream	SNORD116-1	NA	NA	
7313	15	24379645	24379645	C	A	C	M	exonic	GABRB3	silent	NM_000814:p.T157T	

7313	15	26165649	26165649	G	A	G	R	intronic	HERC2	NA	NA
7313	15	32142850	32142850	T	A	T	W	exonic	CHRM5	missense	NM_012125:p.C214S
7313	15	32232467	32232467	C	G	C	S	exonic	C15orf29	missense	NM_024713:p.R85T
7313	15	41104959	41104959	C	A	C	M	intronic	UBR1	NA	NA
7313	15	41815714	41815714	C	A	C	M	ncRNA	CATSPER2P1	NA	NA
7313	15	41854003	41854003	C	G	C	S	exonic	ELL3	missense	NM_025165:p.E277Q
7313	15	43008211	43008211	C	A	C	M	intergenic	NA	NA	NA
7313	15	46200661	46200661	G	C	G	S	intronic	SLC24A5	NA	NA
7313	15	49648097	49648097	G	C	G	S	intronic	DMXL2	NA	NA
7313	15	59934179	59934179	C	T	C	Y	intronic	VPS13C	NA	NA
7313	15	60780660	60780660	G	T	G	K	exonic	TLN2	missense	NM_015059:p.D551Y
7313	15	60806656	60806656	G	T	G	K	exonic	TLN2	missense	NM_015059:p.A1112S
7313	15	72361203	72361203	C	-	G	*/-C	exonic	CCDC33	FS_del	NM_025055:p.A352fs
7313	15	72415486	72415486	C	A	C	M	UTR3	CCDC33	NA	NA
7313	15	76462078	76462078	G	T	G	K	intergenic	NA	NA	NA
7313	15	82485086	82485086	G	T	G	K	exonic	ADAMTSL3	missense	NM_207517:p.G1517V
7313	15	86277448	86277448	A	G	A	R	intronic	NTRK3	NA	NA
7313	15	90808395	90808395	C	T	C	Y	exonic	ST8SIA2	silent	NM_006011:p.L302L
7313	16	2452033	2452033	A	G	A	R	intronic	C16orf59	NA	NA
7313	16	3741731	3741731	T	C	T	Y	exonic	CREBBP	missense	NM_004380:p.Q1259R
7313	16	5065388	5065388	A	T	A	W	splicing	ALG1	NA	NA
7313	16	9765157	9765157	G	T	C	Y	exonic	GRIN2A	missense	NM_001134407:p.D1249N
7313	16	10181595	10181595	C	C	G	S	exonic	GRIN2A	missense	NM_001134407:p.Q59E
7313	16	14877897	14877897	C	G	C	S	intronic	NOMO1	NA	NA
7313	16	15725984	15725984	G	A	G	R	UTR3	NDE1	NA	NA
7313	16	20269576	20269576	C	A	C	M	UTR5	UMOD	NA	NA
7313	16	23361281	23361281	G	A	G	R	intronic	COG7	NA	NA
7313	16	23907383	23907383	C	T	C	Y	exonic	PRKCB	missense	NM_002738:p.P87S
7313	16	34337893	34337893	G	T	G	K	intergenic	NA	NA	NA
7313	16	49731266	49731266	C	A	C	M	exonic	SALL1	nonsense	NM_002968:p.G790X
7313	16	58616190	58616190	G	C	G	S	intergenic	NA	NA	NA
7313	16	69401180	69401180	C	A	C	M	intronic	HYDIN	NA	NA
7313	16	70129135	70129135	G	A	G	R	exonic	CHST4	missense	NM_005769:p.D352N
7313	16	73222169	73222169	T	A	T	W	intronic	RFWD3	NA	NA
7313	16	74070180	74070180	C	G	C	S	exonic	CHST6	missense	NM_021615:p.A350P
7313	17	3469936	3469936	C	-	T	*/-C	intronic	SHPK	NA	NA
7313	17	4672957	4672957	A	T	A	W	exonic	PLD2	missense	NM_002663:p.Y878F
7313	17	7280010	7280010	G	T	G	K	exonic	TMEM102	silent	NM_178518:p.A32A
7313	17	7518276	7518276	C	G	C	S	exonic	TP53	missense	NM_001126117:p.G112R
7313	17	9677873	9677873	A	G	A	R	exonic	GLP2R	missense	NM_004246:p.T72A
7313	17	10248473	10248473	T	C	T	Y	exonic	MYH8	missense	NM_002472:p.K863E
7313	17	15905937	15905937	T	C	T	Y	intronic	NCOR1	NA	NA
7313	17	20522423	20522423	C	A	C	M	intergenic	NA	NA	NA
7313	17	23692655	23692655	A	G	A	R	intronic	TNFAIP1	NA	NA
7313	17	24605472	24605472	G	A	G	R	exonic	CRYBA1	silent	NM_005208:p.S209S
7313	17	25794984	25794984	A	C	A	M	exonic	CPD	silent	NM_001304:p.T804T
7313	17	27392380	27392380	C	A	C	M	ncRNA	SH3GL1P1	NA	NA
7313	17	27398942	27398942	A	G	A	R	exonic	LRRC37B	silent	NM_052888:p.L764L
7313	17	44389068	44389068	C	T	C	Y	intergenic	NA	NA	NA
7313	17	49255563	49255563	C	A	C	M	exonic	KIF2B	missense	NM_032559:p.T57K
7313	17	49257438	49257438	C	G	C	S	UTR3	KIF2B	NA	NA
7313	17	53713018	53713018	G	T	G	K	exonic	MPO	missense	NM_000250:p.A34E
7313	17	54331659	54331659	G	T	G	K	intronic	PPM1E	NA	NA
7313	17	57022885	57022885	C	A	C	M	exonic	NACA2	missense	NM_199290:p.G147C
7313	17	64630931	64630931	C	T	C	Y	intronic	ABCA6	NA	NA
7313	17	75370615	75370615	G	C	G	S	UTR3	CBX2	NA	NA
7313	17	75974616	75974616	C	G	C	S	ncRNA	LOC1002943	NA	NA
7313	17	76584105	76584105	G	T	G	K	exonic	CHMP6	silent	NM_024591:p.V100V
7313	17	77420125	77420125	G	C	G	S	exonic	ARHGDI1A	missense	NM_004309:p.I177M
7313	18	4681687	4681687	C	A	C	M	intergenic	NA	NA	NA
7313	18	5413430	5413430	T	A	T	W	exonic	EPB41L3	missense	NM_012307:p.Y429F
7313	18	8396047	8396047	C	T	C	Y	intronic	PTPRM	NA	NA
7313	18	12057535	12057535	C	A	C	M	intergenic	NA	NA	NA
7313	18	16768976	16768976	A	G	A	R	intergenic	NA	NA	NA
7313	18	17698630	17698630	G	C	G	S	UTR3	MIB1	NA	NA
7313	18	18253096	18253096	G	C	G	S	intergenic	NA	NA	NA
7313	18	26828110	26828110	G	A	G	R	UTR3	DSC3	NA	NA
7313	18	26828116	26828116	G	T	G	K	UTR3	DSC3	NA	NA
7313	18	26828358	26828358	G	C	G	S	intronic	DSC3	NA	NA
7313	18	27189054	27189054	G	T	G	K	exonic	DSG1	missense	NM_001942:p.G966V
7313	18	49102480	49102480	C	A	C	M	exonic	DCC	missense	NM_005215:p.P707T
7313	18	57321157	57321157	A	G	A	R	intronic	CDH20	NA	NA
7313	18	62323185	62323185	G	T	G	K	exonic	CDH19	nonsense	NM_021153:p.Y721X
7313	19	570252	570252	G	C	G	S	exonic	POLRMT	missense	NM_005035:p.F1037L
7313	19	1009605	1009605	C	A	C	M	intronic	ABCA7	NA	NA
7313	19	2159933	2159933	G	C	G	S	splicing	DOT1L	NA	NA
7313	19	6258043	6258043	C	A	C	M	intronic	ACER1	NA	NA
7313	19	7499572	7499572	G	T	G	K	exonic	MCOLN1	missense	NM_020533:p.G323C
7313	19	7824111	7824111	G	A	G	R	intronic	EVISL	NA	NA

7313	19	9132546	9132546	A	T	A	W	exonic	ZNF317	missense	NM_020933:p.M409L
7313	19	9223118	9223118	G	C	G	S	exonic	OR7E24	silent	NM_001079935:p.L133L
7313	19	15862263	15862263	G	A	G	R	intronic	CYP4F2	NA	NA
7313	19	15864295	15864295	C	A	C	M	intronic	CYP4F2	NA	NA
7313	19	17489162	17489162	C	T	C	Y	exonic	PGL5	silent	NM_012088:p.H154H
7313	19	20139202	20139202	G	T	G	K	intronic	ZNF486	NA	NA
7313	19	39275684	39275684	T	A	T	W	intergenic	NA	NA	NA
7313	19	41605291	41605291	C	A	C	M	ncRNA	LOC644189	NA	NA
7313	19	41809402	41809402	C	A	C	M	exonic	ZNF382	missense	NM_032825:p.L255I
7313	19	42561932	42561932	A	C	A	M	exonic	ZNF527	missense	NM_032453:p.Q35P
7313	19	47003028	47003028	A	T	A	W	intronic	CEACAM3	NA	NA
7313	19	47603643	47603643	C	T	C	Y	exonic	LIPE	silent	NM_005357:p.G599G
7313	19	56072036	56072036	T	A	T	W	exonic	KLK2	nonsense	NM_005551:p.L197X
7313	19	57086239	57086239	C	A	C	M	exonic	ZNF649	missense	NM_023074:p.S321I
7313	19	58034541	58034541	G	C	G	S	UTR3	ZNF468	NA	NA
7313	19	59237144	59237144	G	A	G	R	intronic	VSTM1	NA	NA
7313	19	59798003	59798003	C	A	C	M	exonic	LILRA1	silent	NM_006863:p.P44P
7313	19	59970548	59970548	G	T	G	K	intergenic	NA	NA	NA
7313	19	60069725	60069725	C	A	C	M	intronic	KIR3DL2	NA	NA
7313	19	60381452	60381452	G	C	G	S	exonic	SYT5	missense	NM_003180:p.T59R
7313	19	60403676	60403676	T	A	T	W	exonic	PTPRH	missense	NM_001161440:p.N209I
7313	19	61055539	61055539	G	T	G	K	splicing	NLRP4	NA	NA
7313	19	61114976	61114976	A	T	A	W	exonic	NLRP13	silent	NM_176810:p.A673A
7313	19	61525318	61525318	C	G	C	S	intergenic	NA	NA	NA
7313	19	62434919	62434919	C	T	C	Y	intronic	AURKC	NA	NA
7313	19	62561113	62561113	G	A	G	R	UTR3	ZNF304	NA	NA
7313	20	1517206	1517206	C	A	C	M	intronic	SIRPB1	NA	NA
7313	20	2346056	2346056	C	A	C	M	exonic	TGM6	silent	NM_198994:p.P505P
7313	20	2361321	2361321	G	T	G	K	UTR3	TGM6	NA	NA
7313	20	3952832	3952832	G	T	G	K	intergenic	NA	NA	NA
7313	20	8718179	8718179	T	C	T	Y	exonic	PLCB1	missense	NM_182734:p.M1098T
7313	20	22964835	22964835	C	A	C	M	exonic	SSTR4	missense	NM_001052:p.R239S
7313	20	28223898	28223898	A	C	A	M	intergenic	NA	NA	NA
7313	20	29338128	29338128	G	A	G	R	intergenic	NA	NA	NA
7313	20	30187690	30187690	T	C	T	Y	intronic	TM9SF4	NA	NA
7313	20	43439543	43439543	G	T	G	K	ncRNA	SYS1-DBNDD	NA	NA
7313	20	52222905	52222905	C	A	C	M	exonic	CYP24A1	silent	NM_001128915:p.P133P
7313	20	60937761	60937761	G	T	G	K	intronic	COL9A3	NA	NA
7313	21	9724380	9724380	C	A	C	M	intergenic	NA	NA	NA
7313	21	9963844	9963844	C	A	C	M	splicing	TPTE	NA	NA
7313	21	33819186	33819186	G	C	G	S	intronic	GART	NA	NA
7313	21	40662835	40662835	G	T	G	K	intronic	DSCAM	NA	NA
7313	21	46144984	46144984	C	T	C	Y	intronic	PCBP3	NA	NA
7313	22	15452292	15452292	C	T	C	Y	exonic	CCT8L2	silent	NM_014406:p.Q383Q
7313	22	15453405	15453405	G	C	G	S	exonic	CCT8L2	silent	NM_014406:p.P12P
7313	22	20993102	20993102	T	A	T	W	ncRNA	LOC96610	NA	NA
7313	22	43975621	43975621	C	A	C	M	intronic	C22orf9	NA	NA
7313	22	45083124	45083124	G	A	G	R	exonic	GTSE1	missense	NM_016426:p.D128N
7313	22	45174373	45174373	C	A	C	M	exonic	CELSR1	nonsense	NM_014246:p.E1773X
7313	22	45174374	45174374	C	A	C	M	exonic	CELSR1	silent	NM_014246:p.G1772G
7313	X	2782104	2782104	A	G	A	R	exonic	GYG2	missense	NM_003918:p.K109R
7313	X	7185679	7185679	G	T	G	K	intronic	STS	NA	NA
7313	X	7628749	7628749	G	A	G	R	intergenic	NA	NA	NA
7313	X	13666895	13666895	A	G	A	R	exonic	OFD1	missense	NM_003611:p.M108V
7313	X	16781680	16781680	T	A	T	W	intronic	RBBP7	NA	NA
7313	X	17027894	17027894	G	A	G	R	intronic	REPS2	NA	NA
7313	X	26146028	26146028	G	T	G	K	intergenic	NA	NA	NA
7313	X	26425010	26425010	A	T	A	W	intergenic	NA	NA	NA
7313	X	27447375	27447375	G	T	G	K	intergenic	NA	NA	NA
7313	X	29883324	29883324	G	A	G	R	exonic	IL1RAPL1	missense	NM_014271:p.M519I
7313	X	30146834	30146834	G	T	G	K	exonic	MAGEB2	silent	NM_002364:p.A72A
7313	X	36890663	36890663	T	A	T	W	intergenic	NA	NA	NA
7313	X	40104147	40104147	G	T	G	K	intergenic	NA	NA	NA
7313	X	48921364	48921364	G	A	G	R	exonic	PRICKLE3	missense	NM_006150:p.R293C
7313	X	57179437	57179437	G	T	G	K	exonic	SPIN2A	missense	NM_019003:p.L107I
7313	X	58028491	58028491	C	G	C	S	intergenic	NA	NA	NA
7313	X	58028492	58028492	G	A	G	R	intergenic	NA	NA	NA
7313	X	65307242	65307242	G	A	G	R	exonic	HEPH	silent	NM_138737:p.V89V
7313	X	65396868	65396868	C	T	C	Y	intronic	HEPH	NA	NA
7313	X	69178515	69178515	G	T	G	K	exonic	AWAT2	silent	NM_001002254:p.P290P
7313	X	78465543	78465543	G	T	G	K	intergenic	NA	NA	NA
7313	X	82701762	82701762	C	A	C	M	intergenic	NA	NA	NA
7313	X	82701763	82701763	A	G	A	R	intergenic	NA	NA	NA
7313	X	85954605	85954605	G	T	G	K	exonic	DACH2	missense	NM_001139515:p.G277V
7313	X	87204485	87204485	C	T	C	Y	intergenic	NA	NA	NA
7313	X	89180936	89180936	G	T	G	K	intergenic	NA	NA	NA
7313	X	92851041	92851041	A	T	A	W	UTR5	FAM133A	NA	NA
7313	X	98799030	98799030	C	A	C	M	ncRNA	LOC442459	NA	NA
7313	X	98799032	98799032	C	A	C	M	ncRNA	LOC442459	NA	NA

7313	X	104365342	104365342	A	G	A	R	exonic	IL1RAPL2	missense	NM_017416:p.K181E
7313	X	104537558	104537558	C	A	C	M	intronic	IL1RAPL2	NA	NA
7313	X	107290436	107290436	G	A	G	R	exonic	COL4A6	missense	NM_001847:p.P1481S
7313	X	113529844	113529844	G	T	G	K	intergenic	NA	NA	NA
7313	X	114775687	114775687	C	T	C	Y	intronic	PLS3	NA	NA
7313	X	117784720	117784720	G	T	G	K	intronic	IL13RA1	NA	NA
7313	X	120164680	120164680	G	T	G	K	intergenic	NA	NA	NA
7313	X	130506577	130506577	G	T	G	K	exonic	OR13H1	missense	NM_001004486:p.M283I
7313	X	134572387	134572387	G	T	G	K	intergenic	NA	NA	NA
7313	X	134923110	134923110	G	A	G	R	intronic	SLC9A6	NA	NA
7313	X	135267522	135267522	G	T	G	K	intronic	GPR112	NA	NA
7313	X	140820461	140820461	G	C	G	S	UTR5	MAGEC1	NA	NA
7313	X	144712082	144712082	C	A	C	M	exonic	SLITRK2	silent	NM_001144006:p.I149I
7313	X	144883546	144883546	C	G	C	S	ncRNA	MIR890	NA	NA
7313	X	152685681	152685681	G	A	G	R	exonic	PLXNB3	missense	NM_001163257:p.G92S
7313	Y	4984939	4984939	G	C	G	S	exonic	PCDH11Y	silent	NM_032972:p.R25R
7313	Y	6195086	6195086	C	A	C	M	intergenic	NA	NA	NA
7313	Y	12617983	12617983	G	C	G	S	intergenic	NA	NA	NA
7313	Y	15451648	15451648	G	T	G	K	exonic	NLGN4Y	missense	NM_014893:p.D486Y
7313	Y	22876203	22876203	G	T	G	K	intergenic	NA	NA	NA
7313	Y	27142156	27142156	G	T	G	K	intergenic	NA	NA	NA
7313	Y	27170071	27170071	T	A	T	W	intergenic	NA	NA	NA
7313	Y	27186322	27186322	G	T	G	K	intergenic	NA	NA	NA
7313	Y	57442232	57442232	C	A	C	M	intergenic	NA	NA	NA
7313	M	11752	11752	A	G	A	R	intergenic	NA	NA	NA
7945	1	62359526	62359526	G	A	G	R	exonic	INADL	missense	NM_176877:p.R1659K
7945	1	143563999	143563999	C	T	C	Y	intronic	PDE4DIP	NA	NA
7945	1	156908468	156908468	G	A	G	R	intronic	SPTA1	NA	NA
7945	1	157174765	157174765	C	T	C	Y	intronic	PYHIN1	NA	NA
7945	1	183031450	183031450	C	T	C	Y	exonic	FAM129A	missense	NM_052966:p.E691K
7945	1	212564543	212564543	A	G	A	R	intronic	SMYD2	NA	NA
7945	1	218893175	218893175	G	-	T	*/-G	exonic	MARK1	FS_del	NM_018650:p.G616fs
7945	1	245761921	245761921	G	C	G	S	exonic	OR2C3	missense	NM_198074:p.N172K
7945	2	37897993	37897993	A	T	A	W	intergenic	NA	NA	NA
7945	2	90968562	90968562	T	G	T	K	intergenic	NA	NA	NA
7945	2	90976553	90976553	G	T	G	K	intergenic	NA	NA	NA
7945	3	196776993	196776993	-	C	G	*/+C	UTR3	APOD	NA	NA
7945	4	25997058	25997058	T	A	T	W	intronic	RBPJ	NA	NA
7945	4	48798339	48798339	C	T	C	Y	intergenic	NA	NA	NA
7945	5	134192184	134192184	T	G	T	K	intronic	DDX46	NA	NA
7945	6	46911237	46911237	G	A	G	R	exonic	MEP1A	silent	NM_005588:p.A692A
7945	9	67904134	67904134	C	A	C	M	intergenic	NA	NA	NA
7945	9	67921464	67921464	G	T	G	K	ncRNA	LOC642236	NA	NA
7945	10	120085028	120085028	A	G	A	R	intronic	C10orf84	NA	NA
7945	11	48774558	48774558	A	C	A	M	intergenic	NA	NA	NA
7945	12	3448613	3448613	C	A	C	M	intergenic	NA	NA	NA
7945	12	5973975	5973975	G	A	G	R	exonic	VWF	silent	NM_000552:p.N2041N
7945	13	38164578	38164578	C	T	C	Y	exonic	FREM2	silent	NM_207361:p.I1699I
7945	14	18184642	18184642	A	G	A	R	intergenic	NA	NA	NA
7945	14	59934372	59934372	C	T	C	Y	intergenic	NA	NA	NA
7945	16	1440569	1440569	G	A	G	R	exonic	CLCN7	missense	NM_001287:p.P516L
7945	16	2316067	2316067	G	A	G	R	exonic	ABCA3	silent	NM_001089:p.D88D
7945	16	59647301	59647301	T	A	T	W	intergenic	NA	NA	NA
7945	18	99200	99200	A	C	A	M	ncRNA	ROCK1P1	NA	NA
7945	18	16769820	16769820	C	A	C	M	intergenic	NA	NA	NA
7945	19	59834432	59834432	T	C	T	Y	intronic	LILRB1	NA	NA
7945	19	59976382	59976382	G	C	G	S	intronic	KIR2DL1	NA	NA
7945	19	59976392	59976392	C	T	C	Y	intronic	KIR2DL1	NA	NA
7945	19	60193277	60193277	G	A	G	R	exonic	NLRP2	silent	NM_001174082:p.T792T
7945	21	9743738	9743738	G	A	G	R	intergenic	NA	NA	NA
7945	X	23994175	23994175	G	T	G	K	intronic	EIF2S3	NA	NA
7945	X	95479086	95479086	T	C	T	Y	ncRNA	LOC643486	NA	NA
7945	Y	10639408	10639408	T	C	T	Y	intergenic	NA	NA	NA
7945	Y	11854700	11854700	C	T	C	Y	intergenic	NA	NA	NA
7945	Y	11854736	11854736	G	A	G	R	intergenic	NA	NA	NA
7945	Y	11909697	11909697	T	A	T	W	intergenic	NA	NA	NA
7945	Y	57411262	57411262	G	A	G	R	intergenic	NA	NA	NA
7945	Y	57415656	57415656	A	T	A	W	intergenic	NA	NA	NA
7996	1	50638048	50638048	T	C	T	Y	intergenic	NA	NA	NA
7996	1	54214341	54214341	G	A	G	R	intergenic	NA	NA	NA
7996	1	70250137	70250137	C	A	C	M	exonic	LRRC7	nonsense	NM_020794:p.Y320X
7996	1	70250138	70250138	C	A	C	M	exonic	LRRC7	missense	NM_020794:p.L321I
7996	1	91619189	91619189	A	T	A	W	intronic	HFM1	NA	NA
7996	1	109918200	109918200	C	A	C	M	intronic	GNAI3	NA	NA
7996	1	141835022	141835022	G	A	G	R	intergenic	NA	NA	NA
7996	1	143635196	143635196	G	A	G	R	intronic	PDE4DIP	NA	NA
7996	1	147326540	147326540	C	A	C	M	intergenic	NA	NA	NA
7996	1	147361312	147361312	C	A	C	M	intergenic	NA	NA	NA
7996	1	150458098	150458098	A	C	A	M	exonic	HRNR	silent	NM_001009931:p.A877A



7996	1	153716158	153716158	C	T	C	Y	exonic	ASH1L	missense	NM_018489:p.G1043R
7996	1	155946843	155946843	A	G	A	R	intergenic	NA	NA	NA
7996	1	155946855	155946855	T	C	T	Y	intergenic	NA	NA	NA
7996	1	157210169	157210169	G	T	G	K	exonic	PYHIN1	missense	NM_198928:p.A481S
7996	1	175492926	175492926	T	G	T	K	intronic	FAM5B	NA	NA
7996	1	195015086	195015086	G	T	G	K	exonic	CFHR3	missense	NM_001166624:p.W77L
7996	1	195015087	195015087	G	T	G	K	exonic	CFHR3	missense	NM_001166624:p.W77C
7996	1	195670714	195670714	C	T	C	Y	exonic	CRB1	missense	NM_001193640:p.T921I
7996	1	210866093	210866093	T	A	T	W	exonic	FAM71A	silent	NM_153606:p.A417A
7996	1	211212800	211212800	C	T	C	Y	exonic	VASH2	silent	NM_024749:p.Y207Y
7996	1	214324761	214324761	G	T	G	K	exonic	USH2A	missense	NM_206933:p.P1690H
7996	1	214324762	214324762	G	T	G	K	exonic	USH2A	missense	NM_206933:p.P1690T
7996	1	218158271	218158271	C	A	C	M	exonic	SLC30A10	missense	NM_018713:p.A303S
7996	1	226175740	226175740	T	A	T	W	downstream	WNT9A	NA	NA
7996	2	79203539	79203539	C	G	C	S	exonic	REG1A	missense	NM_002909:p.P129R
7996	2	98883080	98883080	T	C	T	Y	intronic	C2orf55	NA	NA
7996	2	218333544	218333544	T	C	T	Y	intergenic	NA	NA	NA
7996	2	223625884	223625884	G	T	G	K	exonic	KCNE4	missense	NM_080671:p.G31V
7996	3	1746873	1746873	T	G	T	K	intergenic	NA	NA	NA
7996	3	2762405	2762405	G	T	G	K	intronic	CNTN4	NA	NA
7996	3	8518720	8518720	T	C	T	Y	intronic	LMCD1	NA	NA
7996	3	9081312	9081312	C	A	C	M	intronic	SRGAP3	NA	NA
7996	3	40532277	40532277	G	T	G	K	ncRNA	ZNF620	NA	NA
7996	3	152648252	152648252	C	T	C	Y	exonic	IGSF10	missense	NM_178822:p.R736H
7996	3	156689308	156689308	G	T	G	K	intronic	PLCH1	NA	NA
7996	3	167030624	167030624	G	C	G	S	exonic	BCHE	missense	NM_000055:p.Q298E
7996	3	180665617	180665617	T	A	T	W	intergenic	NA	NA	NA
7996	4	35811396	35811396	T	C	T	Y	exonic	ARAP2	missense	NM_015230:p.I1092V
7996	4	46420759	46420759	C	A	C	M	intergenic	NA	NA	NA
7996	4	48805292	48805292	A	C	A	M	intergenic	NA	NA	NA
7996	4	48817906	48817906	C	T	C	Y	intergenic	NA	NA	NA
7996	4	48836538	48836538	C	G	C	S	intergenic	NA	NA	NA
7996	4	49211709	49211709	C	G	C	S	intergenic	NA	NA	NA
7996	4	100356315	100356315	A	T	A	W	ncRNA	LOC1005070	NA	NA
7996	4	110672006	110672006	G	A	G	R	exonic	SEC24B	missense	NM_001042734:p.G1055D
7996	4	120534649	120534649	C	T	C	Y	intergenic	NA	NA	NA
7996	4	126590385	126590385	G	A	G	R	exonic	FAT4	missense	NM_024582:p.A2922T
7996	5	1245269	1245269	A	G	A	R	intergenic	NA	NA	NA
7996	5	54984350	54984350	C	A	C	M	intronic	SLC38A9	NA	NA
7996	5	70854394	70854394	G	A	G	R	exonic	BDP1	missense	NM_018429:p.G1750D
7996	5	91175507	91175507	T	A	T	W	intergenic	NA	NA	NA
7996	5	125972136	125972136	A	T	A	W	intronic	PHAX	NA	NA
7996	5	140543397	140543397	C	A	C	M	exonic	PCDHB16	nonsense	NM_020957:p.S360X
7996	5	167815062	167815062	A	C	A	M	exonic	WWC1	missense	NM_001161662:p.K928Q
7996	6	10803254	10803254	T	C	T	Y	exonic	PAK1IP1	missense	NM_017906:p.V17A
7996	6	21063796	21063796	G	A	G	R	splicing	CDKAL1	NA	NA
7996	6	29688937	29688937	C	A	C	M	intronic	GABBR1	NA	NA
7996	6	97446007	97446007	G	A	G	R	intronic	NDUFA4	NA	NA
7996	6	105331691	105331691	C	A	C	M	intronic	HACE1	NA	NA
7996	6	113651336	113651336	G	A	G	R	intergenic	NA	NA	NA
7996	6	159103153	159103153	A	G	A	R	exonic	SYTL3	missense	NM_001009991:p.N423S
7996	6	167035904	167035904	C	T	C	Y	intronic	RPS6KA2	NA	NA
7996	6	167035914	167035914	G	T	G	K	intronic	RPS6KA2	NA	NA
7996	6	167035915	167035915	C	T	C	Y	intronic	RPS6KA2	NA	NA
7996	7	75012066	75012066	C	A	C	M	intronic	HIP1	NA	NA
7996	7	114090868	114090868	T	G	T	K	ncRNA	FOXP2	NA	NA
7996	7	132504797	132504797	G	T	G	K	intergenic	NA	NA	NA
7996	7	137776759	137776759	C	T	C	Y	intergenic	NA	NA	NA
7996	7	143446813	143446813	T	C	T	Y	intergenic	NA	NA	NA
7996	8	15708618	15708618	A	G	A	R	intergenic	NA	NA	NA
7996	8	34851679	34851679	A	G	A	R	intergenic	NA	NA	NA
7996	8	53188343	53188343	T	A	T	W	exonic	ST18	missense	NM_014682:p.I1038F
7996	8	54304587	54304587	G	C	G	S	exonic	OPRK1	missense	NM_000912:p.N322K
7996	8	59926946	59926946	A	C	A	M	intronic	TOX	NA	NA
7996	9	26989622	26989622	G	C	G	S	exonic	LRRC19	missense	NM_022901:p.S24C
7996	9	33913820	33913820	A	T	A	W	exonic	UBAP2	missense	NM_018449:p.S923R
7996	9	44010709	44010709	C	T	C	Y	intergenic	NA	NA	NA
7996	9	67915914	67915914	C	G	C	S	intergenic	NA	NA	NA
7996	9	67923330	67923330	C	G	C	S	ncRNA	LOC642236	NA	NA
7996	9	67945007	67945007	G	C	G	S	upstream	LOC642236	NA	NA
7996	9	67945015	67945015	A	T	A	W	upstream	LOC642236	NA	NA
7996	9	68118678	68118678	T	G	T	K	ncRNA	LOC1001323	NA	NA
7996	9	70818216	70818216	A	C	A	M	exonic	PRKACG	missense	NM_002732:p.Y205D
7996	9	84805423	84805423	C	A	C	M	intronic	RASEF	NA	NA
7996	9	115971349	115971349	G	A	G	R	exonic	COL27A1	missense	NM_032888:p.D565N
7996	9	131927085	131927085	T	C	T	Y	intronic	GPR107	NA	NA
7996	9	138995179	138995179	C	T	C	Y	intronic	PTGDS	NA	NA
7996	9	139316210	139316210	C	A	C	M	UTR5	NRARP	NA	NA
7996	10	31046134	31046134	T	C	T	Y	intergenic	NA	NA	NA

7996	10	70074724	70074724	A	G	A	R	exonic	TET1	silent	NM_030625:p.K744K
7996	10	78502956	78502956	C	A	C	M	exonic	KCNMA1	missense	NM_001161352:p.A552S
7996	10	98101167	98101167	A	C	A	M	intronic	OPALIN	NA	NA
7996	10	127573963	127573963	C	G	C	S	intergenic	NA	NA	NA
7996	11	6847814	6847814	G	T	G	K	exonic	OR10A2	missense	NM_001004460:p.A85S
7996	11	34090188	34090188	A	G	A	R	exonic	NAT10	missense	NM_024662:p.R72G
7996	11	49899319	49899319	C	A	C	M	intergenic	NA	NA	NA
7996	11	55163056	55163056	A	T	A	W	exonic	OR4P4	missense	NM_001004124:p.Y216F
7996	11	103413501	103413501	C	G	C	S	exonic	DDI1	missense	NM_001001711:p.N247K
7996	11	119853031	119853031	T	G	T	K	intronic	ARHGFE12	NA	NA
7996	11	122436212	122436212	T	C	T	Y	intronic	HSPA8	NA	NA
7996	11	125010623	125010623	G	T	G	K	exonic	CHEK1	missense	NM_001114121:p.D235Y
7996	12	31137509	31137509	C	T	C	Y	exonic	DDX11	silent	NM_030653:p.F451F
7996	12	47169027	47169027	T	C	T	Y	intronic	C12orf54	NA	NA
7996	12	54890445	54890445	C	T	C	Y	exonic	RNF41	missense	NM_194358:p.G18S
7996	12	56302881	56302881	T	C	T	Y	exonic	SLC26A10	missense	NM_133489:p.I279T
7996	12	72850716	72850716	A	T	A	W	intergenic	NA	NA	NA
7996	12	125915514	125915514	T	G	T	K	intergenic	NA	NA	NA
7996	13	18152863	18152863	G	T	G	K	intergenic	NA	NA	NA
7996	14	60686532	60686532	C	T	C	Y	intergenic	NA	NA	NA
7996	14	71274712	71274712	A	T	A	W	splicing	SIPA1L1	missense	NM_015556:p.S1730C
7996	14	74607194	74607194	G	A	G	R	exonic	FAM164C	silent	NM_024643:p.K55K
7996	15	19037939	19037939	G	T	G	K	ncRNA	GOLGA8C	NA	NA
7996	15	46595721	46595721	C	A	C	M	exonic	FBN1	silent	NM_000138:p.P426P
7996	15	49072982	49072982	G	A	G	R	exonic	AP4E1	missense	NM_007347:p.M738I
7996	15	54470875	54470875	A	G	A	R	exonic	TEX9	missense	NM_198524:p.I180V
7996	15	56640508	56640508	C	T	C	Y	intronic	LIPC	NA	NA
7996	15	62293415	62293415	T	G	T	K	intronic	CSNK1G1	NA	NA
7996	15	66774636	66774636	C	A	C	M	exonic	CORO2B	nonsense	NM_001190457:p.S102X
7996	15	66774637	66774637	G	C	G	S	exonic	CORO2B	silent	NM_001190457:p.S102S
7996	16	1810083	1810083	G	C	G	S	intronic	HAGH	NA	NA
7996	16	17119217	17119217	C	T	C	Y	exonic	XYLT1	missense	NM_022166:p.V782I
7996	16	20601264	20601264	G	T	G	K	exonic	ACSM1	silent	NM_052956:p.T142T
7996	16	30005705	30005705	A	G	A	R	intronic	TBX6	NA	NA
7996	16	33882738	33882738	T	G	T	K	intergenic	NA	NA	NA
7996	16	74220863	74220863	T	C	T	Y	exonic	KARS	missense	NM_001130089:p.E529G
7996	16	84269605	84269605	G	T	G	K	intronic	GINS2	NA	NA
7996	17	7519188	7519188	C	G	C	S	exonic	TP53	missense	NM_001126117:p.R24P
7996	17	31022867	31022867	T	-	C	*/-T	intronic	AP2B1	NA	NA
7996	17	43408333	43408333	A	G	A	R	exonic	CDK5RAP3	silent	NM_176096:p.E251E
7996	17	50397023	50397023	A	T	A	W	ncRNA	COX11	NA	NA
7996	17	53413139	53413139	G	C	G	S	exonic	VEZF1	missense	NM_007146:p.T267S
7996	17	54043726	54043726	A	-	G	*/-A	intronic	TEX14	NA	NA
7996	18	98741	98741	A	T	A	W	upstream	ROCK1P1	NA	NA
7996	18	3492541	3492541	G	A	G	R	exonic	DLGAP1	missense	NM_004746:p.H892Y
7996	18	16771292	16771292	T	G	T	K	intergenic	NA	NA	NA
7996	18	32552519	32552519	G	T	G	K	exonic	FHOD3	missense	NM_025135:p.R912L
7996	18	56482476	56482476	G	T	G	K	intergenic	NA	NA	NA
7996	18	75576410	75576410	G	A	G	R	exonic	CTDP1	silent	NM_004715:p.T654T
7996	19	4122710	4122710	C	A	C	M	exonic	CREB3L3	missense	NM_032607:p.P377Q
7996	19	20362507	20362507	C	A	C	M	intergenic	NA	NA	NA
7996	19	39614714	39614714	G	T	G	K	intronic	UBA2	NA	NA
7996	19	43925491	43925491	C	G	C	S	intronic	CAPN12	NA	NA
7996	19	47601553	47601553	C	G	C	S	splicing	LIPE	missense	NM_005357:p.G789A
7996	19	51080101	51080101	C	A	C	M	exonic	IRF2BP1	missense	NM_015649:p.A258S
7996	19	53229401	53229401	G	A	G	R	exonic	CABP5	silent	NM_019855:p.L127L
7996	19	59417894	59417894	C	T	C	Y	intronic	LILRB3	NA	NA
7996	19	59446590	59446590	G	A	G	R	exonic	LILRB5	missense	NM_006840:p.P549S
7996	19	59913765	59913765	C	T	C	Y	ncRNA	LILRP2	NA	NA
7996	20	6707376	6707376	C	T	C	Y	exonic	BMP2	silent	NM_001200:p.H277H
7996	20	23914221	23914221	C	T	C	Y	intronic	GGTLC1	NA	NA
7996	21	18666285	18666285	A	T	A	W	intronic	TMPRSS15	NA	NA
7996	21	19539790	19539790	G	T	G	K	intergenic	NA	NA	NA
7996	22	29268813	29268813	C	A	C	M	intronic	LOC730005	NA	NA
7996	22	29268814	29268814	C	A	C	M	intronic	LOC730005	NA	NA
7996	22	29341366	29341366	C	A	C	M	exonic	TCN2	missense	NM_000355:p.T220N
7996	22	38692185	38692185	T	C	T	Y	intronic	GRAP2	NA	NA
7996	22	42405425	42405425	G	A	G	R	intronic	EFCAB6	NA	NA
7996	X	23322169	23322169	A	G	A	R	exonic	PTCHD1	silent	NM_173495:p.V871V
7996	X	26122677	26122677	G	A	G	R	exonic	MAGEB6	missense	NM_173523:p.V265I
7996	X	29324443	29324443	T	A	T	W	exonic	IL1RAPL1	missense	NM_014271:p.F170L
7996	X	35895716	35895716	C	A	C	M	exonic	CXorf21	missense	NM_152632:p.R554S
7996	X	44588376	44588376	C	G	C	S	exonic	DUSP21	silent	NM_022076:p.S18S
7996	X	48191788	48191788	G	T	G	K	intergenic	NA	NA	NA
7996	X	67920209	67920209	C	A	C	M	intergenic	NA	NA	NA
7996	X	72350466	72350466	A	G	A	R	exonic	NAP1L2	silent	NM_021963:p.Y196Y
7996	X	79716293	79716293	G	T	G	K	intergenic	NA	NA	NA
7996	X	79886456	79886456	A	C	A	M	intronic	BRWD3	NA	NA
7996	X	87895347	87895347	T	A	T	W	exonic	CPXCR1	silent	NM_033048:p.L92L

7996	X	92364181	92364181	G	A	G	R	intergenic	NA	NA	NA
7996	X	92364182	92364182	G	T	G	K	intergenic	NA	NA	NA
7996	X	102221675	102221675	C	T	C	Y	intronic	NXF3	NA	NA
7996	X	137577543	137577543	C	A	C	M	ncRNA	MIR504	NA	NA
7996	X	138866003	138866003	G	A	G	R	exonic	CXorf66	silent	NM_001013403:p.P268P
7996	X	144917128	144917128	A	T	A	W	upstream	MIR891A	NA	NA
7996	X	144917133	144917133	C	T	C	Y	upstream	MIR891A	NA	NA
7996	X	148851571	148851571	T	A	T	W	exonic	CXorf40B	missense	NM_001013845:p.N109I
7996	X	153662821	153662821	A	G	A	R	intronic	MPP1	NA	NA
7996	Y	10647908	10647908	G	A	G	R	intergenic	NA	NA	NA
7996	Y	11784056	11784056	A	T	A	W	intergenic	NA	NA	NA
7996	Y	11935811	11935811	C	G	C	S	intergenic	NA	NA	NA
7996	M	12697	12697	T	C	T	Y	intergenic	NA	NA	NA
L383	1	200440312	200440312	A	C	A	M	intronic	LGR6	NA	NA
L383	2	94902803	94902803	C	T	C	Y	intronic	TEKT4	NA	NA
L383	3	75869463	75869463	T	A	T	W	exonic	ZNF717	missense	NM_001128223:p.R667S
L383	5	3377294	3377294	T	A	T	W	intergenic	NA	NA	NA
L383	6	43275631	43275631	G	T	G	K	intronic	CUL9	NA	NA
L383	7	156426889	156426889	C	A	C	M	intergenic	NA	NA	NA
L383	8	144476524	144476524	A	C	A	M	intronic	TOP1MT	NA	NA
L383	8	144476525	144476525	C	A	C	M	intronic	TOP1MT	NA	NA
L383	9	110049828	110049828	C	T	C	Y	intergenic	NA	NA	NA
L383	11	6489304	6489304	T	A	T	W	intronic	DNHD1	NA	NA
L383	12	123467567	123467567	C	T	C	Y	intronic	NCOR2	NA	NA
L383	12	131208592	131208594	CAC	-	A	#NAME?	intergenic	NA	NA	NA
L383	20	20180224	20180224	C	A	C	M	intronic	C20orf26	NA	NA
L383	20	20191540	20191540	A	T	A	W	intronic	C20orf26	NA	NA
L383	X	144885857	144885857	C	G	C	S	downstream	MIR892A	NA	NA
LU-1516	1	19293969	19293969	G	A	G	R	intronic	UBR4	NA	NA
LU-1516	1	89370392	89370392	G	C	G	S	UTR3	GBP7	NA	NA
LU-1516	1	245090919	245090919	G	A	G	R	exonic	AHCTF1	missense	NM_015446:p.A1355V
LU-1516	1	246233613	246233613	G	T	G	K	UTR5	OR2L13	NA	NA
LU-1516	1	246233619	246233619	C	T	C	Y	UTR5	OR2L13	NA	NA
LU-1516	3	76566864	76566864	G	T	G	K	intergenic	NA	NA	NA
LU-1516	4	190770309	190770309	T	C	T	Y	intergenic	NA	NA	NA
LU-1516	5	2199043	2199043	G	A	G	R	intergenic	NA	NA	NA
LU-1516	5	67605579	67605579	C	T	C	Y	exonic	PIK3R1	nonsense	NM_181523:p.R162X
LU-1516	5	102460451	102460451	G	A	G	R	intronic	GIN1	NA	NA
LU-1516	6	31233141	31233141	C	A	C	M	splicing	CCHCR1	missense	NM_001105563:p.R72S
LU-1516	6	33368166	33368166	T	C	T	Y	intronic	RGL2	NA	NA
LU-1516	6	33368167	33368167	T	C	T	Y	intronic	RGL2	NA	NA
LU-1516	6	33485488	33485488	G	T	G	K	UTR3	KIF1	NA	NA
LU-1516	6	52872771	52872771	A	G	A	R	exonic	GSTA3	missense	NM_000847:p.C112R
LU-1516	6	117860189	117860189	T	A	T	W	intergenic	NA	NA	NA
LU-1516	6	165666478	165666478	G	T	G	K	UTR3	PDE10A	NA	NA
LU-1516	7	55227009	55227009	T	G	T	K	exonic	EGFR	missense	NM_005228:p.L858R
LU-1516	8	87311171	87311171	C	T	C	Y	exonic	SLC7A13	missense	NM_138817:p.R151H
LU-1516	10	124637927	124637927	C	A	C	M	ncRNA	LOC399815	NA	NA
LU-1516	12	38964072	38964072	C	G	C	S	exonic	LRRK2	silent	NM_198578:p.L790L
LU-1516	16	33864714	33864714	C	T	C	Y	intergenic	NA	NA	NA
LU-1516	16	33866529	33866529	C	T	C	Y	intergenic	NA	NA	NA
LU-1516	17	55442500	55442500	C	T	C	Y	ncRNA	DHX40P1	NA	NA
LU-1516	19	431885	431885	G	A	G	R	intergenic	NA	NA	NA
LU-1516	19	60130753	60130753	A	C	A	M	intronic	NLRP7	NA	NA
LU-1516	20	28194708	28194708	C	T	C	Y	intergenic	NA	NA	NA
LU-1516	20	28247937	28247937	T	A	T	W	downstream	FRG1B	NA	NA
LU-1516	20	32965187	32965187	C	G	C	S	intronic	ACSS2	NA	NA
LU-1516	21	9787809	9787809	A	T	A	W	intergenic	NA	NA	NA
LU-1516	21	10151969	10151969	G	A	G	R	intergenic	NA	NA	NA
LU-1516	22	19652333	19652333	C	T	C	Y	intronic	AIFM3	NA	NA
LU-1516	22	40727501	40727501	G	T	G	K	intronic	WBP2NL	NA	NA
LU-1516	X	9824045	9824045	C	A	C	M	exonic	SHROOM2	silent	NM_001649:p.R699R
LU-1516	X	9824046	9824046	C	A	C	M	exonic	SHROOM2	missense	NM_001649:p.R700S
LU-1516	X	46930399	46930399	A	G	A	R	intronic	RBM10	NA	NA
LU-1800	1	121056572	121056572	A	G	A	R	intergenic	NA	NA	NA
LU-1800	1	141602184	141602184	A	G	A	R	intergenic	NA	NA	NA
LU-1800	3	135036120	135036120	C	G	C	S	exonic	RAB6B	missense	NM_016577:p.S184T
LU-1800	6	42131521	42131521	C	G	C	S	intronic	TAF8	NA	NA
LU-1800	7	137984484	137984484	A	G	A	R	intronic	SVOPL	NA	NA
LU-1800	7	137984486	137984486	G	A	G	R	intronic	SVOPL	NA	NA
LU-1800	9	67974445	67974445	C	T	C	Y	intergenic	NA	NA	NA
LU-1800	10	41937008	41937008	T	G	T	K	intergenic	NA	NA	NA
LU-1800	12	54850328	54850328	C	T	C	Y	intronic	SMARCC2	NA	NA
LU-1800	17	63149275	63149275	T	A	T	W	intronic	NOL11	NA	NA
LU-1800	20	28217222	28217222	A	C	A	M	intergenic	NA	NA	NA
LU-1800	21	10145748	10145748	G	A	G	R	intergenic	NA	NA	NA
LU-1800	Y	11760378	11760378	T	A	T	W	intergenic	NA	NA	NA
LU-1800	Y	11760388	11760388	G	C	G	S	intergenic	NA	NA	NA
LU-1991	1	16789296	16789296	C	G	C	S	intronic	NBPF1	NA	NA

LU-1991	1	17404284	17404284	G	A	G	R	UTR5	PAD11	NA	NA
LU-1991	1	21098695	21098695	A	G	A	R	intronic	EIF4G3	NA	NA
LU-1991	1	28529703	28529703	C	A	C	M	UTR5	MED18	NA	NA
LU-1991	1	32338837	32338837	A	G	A	R	intronic	TMEM398B	NA	NA
LU-1991	1	32442294	32442294	G	T	G	K	intronic	CCDC28B	NA	NA
LU-1991	1	33840574	33840574	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.G2233V
LU-1991	1	34234976	34234976	G	T	G	K	intronic	CSMD2	NA	NA
LU-1991	1	36156092	36156092	C	T	C	Y	intronic	EIF2C1	NA	NA
LU-1991	1	39090761	39090761	C	T	C	Y	intronic	RRAGC	NA	NA
LU-1991	1	41235598	41235598	C	A	C	M	intronic	CTP5	NA	NA
LU-1991	1	45041695	45041695	C	G	C	S	intronic	PLK3	NA	NA
LU-1991	1	45308301	45308301	A	G	A	R	intronic	ZSWIM5	NA	NA
LU-1991	1	55052246	55052246	C	A	C	M	intronic	C1orf177	NA	NA
LU-1991	1	57144855	57144855	C	G	C	S	intronic	C8A	NA	NA
LU-1991	1	62768926	62768926	T	A	T	W	intronic	DOCK7	NA	NA
LU-1991	1	67211197	67211197	T	G	T	K	exonic	MIER1	missense	NM_001146112:p.C266G
LU-1991	1	75880099	75880099	C	A	C	M	intergenic	NA	NA	NA
LU-1991	1	77760111	77760111	G	T	G	K	exonic	AK5	missense	NM_012093:p.L415F
LU-1991	1	77935583	77935583	C	G	C	S	UTR3	USP33	NA	NA
LU-1991	1	84159381	84159381	T	C	T	Y	exonic	TTL7	silent	NM_024686:p.E447E
LU-1991	1	94240140	94240140	G	T	G	K	intronic	ABCA4	NA	NA
LU-1991	1	109947476	109947476	T	G	T	K	UTR3	GNAT2	NA	NA
LU-1991	1	116069698	116069698	C	A	C	M	splicing	CASQ2	NA	NA
LU-1991	1	119903569	119903569	C	A	C	M	intergenic	NA	NA	NA
LU-1991	1	142295772	142295772	C	A	C	M	intergenic	NA	NA	NA
LU-1991	1	142295783	142295783	A	C	A	M	intergenic	NA	NA	NA
LU-1991	1	142312781	142312781	A	C	A	M	intergenic	NA	NA	NA
LU-1991	1	144982627	144982627	G	A	G	R	intergenic	NA	NA	NA
LU-1991	1	145780406	145780406	G	A	G	R	intergenic	NA	NA	NA
LU-1991	1	145780407	145780407	G	T	G	K	intergenic	NA	NA	NA
LU-1991	1	148165212	148165212	G	C	G	S	exonic	SF3B4	missense	NM_005850:p.T129S
LU-1991	1	148990833	148990833	G	C	G	S	intronic	CTSS	NA	NA
LU-1991	1	153416390	153416390	G	A	G	R	splicing	TRIM46	silent	NM_025058:p.E303E
LU-1991	1	154194108	154194108	G	T	G	K	intronic	ARHGFE2	NA	NA
LU-1991	1	154705167	154705167	C	A	C	M	intronic	MEF2D	NA	NA
LU-1991	1	155115563	155115563	C	T	C	Y	exonic	NTRK1	silent	NM_002529:p.L611L
LU-1991	1	155141102	155141102	C	T	C	Y	intronic	PEAR1	NA	NA
LU-1991	1	155141709	155141709	G	T	G	K	intronic	PEAR1	NA	NA
LU-1991	1	156565843	156565843	C	G	C	S	exonic	CD1B	missense	NM_001764:p.G276A
LU-1991	1	157603259	157603259	T	A	T	W	intergenic	NA	NA	NA
LU-1991	1	158784676	158784676	C	T	C	Y	exonic	CD84	silent	NM_001184882:p.V213V
LU-1991	1	159285764	159285764	T	G	T	K	intronic	ARHGAP30	NA	NA
LU-1991	1	159921658	159921658	G	A	G	R	ncRNA	RPL31P11	NA	NA
LU-1991	1	172629985	172629985	C	G	C	S	intronic	RABGAP1L	NA	NA
LU-1991	1	174317038	174317038	G	A	G	R	exonic	RFWD2	nonsense	NM_022457:p.R384X
LU-1991	1	178418035	178418035	G	T	G	K	exonic	QSOX1	missense	NM_001004128:p.C237F
LU-1991	1	183125807	183125807	C	A	C	M	intronic	FAM129A	NA	NA
LU-1991	1	184423813	184423813	C	G	C	S	intronic	HMCN1	NA	NA
LU-1991	1	184547236	184547236	A	G	A	R	exonic	PRG4	silent	NM_001127708:p.A1185A
LU-1991	1	194911860	194911860	C	A	C	M	intronic	CFH	NA	NA
LU-1991	1	196928121	196928121	C	T	C	Y	exonic	PTPRC	silent	NM_002838:p.P30P
LU-1991	1	201404786	201404786	C	T	C	Y	exonic	MYBPH	missense	NM_004997:p.A430T
LU-1991	1	208753172	208753172	T	G	T	K	intronic	HHAT	NA	NA
LU-1991	1	210218392	210218392	G	C	G	S	exonic	INTS7	missense	NM_001199809:p.H390D
LU-1991	1	210218393	210218393	C	A	C	M	exonic	INTS7	missense	NM_001199809:p.L389F
LU-1991	1	212237806	212237806	G	C	G	S	exonic	PROX1	missense	NM_002763:p.Q435H
LU-1991	1	213920329	213920329	G	A	G	R	exonic	USH2A	nonsense	NM_206933:p.Q4027X
LU-1991	1	214436544	214436544	G	C	G	S	exonic	USH2A	missense	NM_007123:p.Q1409E
LU-1991	1	214532180	214532180	C	T	C	Y	exonic	USH2A	silent	NM_007123:p.G600G
LU-1991	1	214658659	214658659	G	C	G	S	intronic	USH2A	NA	NA
LU-1991	1	218245353	218245353	A	C	A	M	intronic	EPRS	NA	NA
LU-1991	1	225240900	225240900	C	G	C	S	exonic	ADCK3	missense	NM_020247:p.L595V
LU-1991	1	234220832	234220832	C	A	C	M	exonic	NID1	missense	NM_002508:p.A969S
LU-1991	1	236112337	236112337	C	A	C	M	ncRNA	LOC1001303	NA	NA
LU-1991	1	236157509	236157509	G	T	G	K	ncRNA	LOC1001303	NA	NA
LU-1991	1	241534662	241534662	G	T	G	K	exonic	SDCCAG8	nonsense	NM_006642:p.E234X
LU-1991	1	243089146	243089146	A	C	A	M	intronic	HNRNPU	NA	NA
LU-1991	1	246233111	246233111	C	A	C	M	intronic	OR2L13	NA	NA
LU-1991	2	1436657	1436657	G	C	G	S	intronic	TPO	NA	NA
LU-1991	2	9076100	9076100	C	G	C	S	intergenic	NA	NA	NA
LU-1991	2	10498461	10498461	T	C	T	Y	intronic	ODC1	NA	NA
LU-1991	2	11252590	11252590	T	A	T	W	exonic	ROCK2	missense	NM_004850:p.E1154V
LU-1991	2	19415541	19415541	G	T	G	K	exonic	OSR1	silent	NM_145260:p.L259L
LU-1991	2	20303151	20303151	T	A	T	W	intergenic	NA	NA	NA
LU-1991	2	20303152	20303152	G	T	G	K	intergenic	NA	NA	NA
LU-1991	2	21103397	21103397	C	G	C	S	intronic	APOB	NA	NA
LU-1991	2	21112083	21112083	G	T	G	K	exonic	APOB	silent	NM_000384:p.T232T
LU-1991	2	24034606	24034606	T	C	T	Y	intronic	UBXN2A	NA	NA
LU-1991	2	25325956	25325956	C	G	C	S	intronic	DNMT3A	NA	NA

LU-1991	2	25963476	25963476	G	T	G	K	intergenic	NA	NA	NA
LU-1991	2	26313136	26313136	T	G	T	K	intronic	HADHA	NA	NA
LU-1991	2	26538102	26538102	C	A	C	M	exonic	OTOF	missense	NM_194248:p.W1833C
LU-1991	2	26538103	26538103	C	A	C	M	exonic	OTOF	missense	NM_194248:p.W1833L
LU-1991	2	27160005	27160005	G	C	G	S	exonic	EMILIN1	missense	NM_007046:p.E688Q
LU-1991	2	29793994	29793994	C	A	C	M	exonic	ALK	missense	NM_004304:p.W247C
LU-1991	2	33388025	33388025	G	T	G	K	exonic	LTBP1	missense	NM_206943:p.D1168Y
LU-1991	2	39850514	39850514	-	T	G	*/+T	exonic	THUMP2	FS_ins	NM_025264:p.T171fs
LU-1991	2	44055401	44055401	T	A	T	W	splicing	LRPPRC	missense	NM_133259:p.T289S
LU-1991	2	48545597	48545597	G	A	G	R	exonic	KLRAQ1	missense	NM_152994:p.A238T
LU-1991	2	48576422	48576422	A	T	A	W	ncRNA	KLRAQ1	NA	NA
LU-1991	2	61112324	61112324	A	G	A	R	exonic	PEX13	missense	NM_002618:p.Q120R
LU-1991	2	61173292	61173292	C	T	C	Y	intronic	KIAA1841	NA	NA
LU-1991	2	61501461	61501461	C	G	C	S	exonic	USP34	missense	NM_014709:p.E19Q
LU-1991	2	63136647	63136647	G	A	G	R	exonic	OTX1	missense	NM_014562:p.A253T
LU-1991	2	68219425	68219425	C	G	C	S	exonic	WDR92	missense	NM_138458:p.D196H
LU-1991	2	70893272	70893272	G	T	G	K	intronic	CLEC4F	NA	NA
LU-1991	2	74302055	74302055	C	T	C	Y	intronic	SLC4A5	NA	NA
LU-1991	2	74687745	74687745	C	G	C	S	exonic	C2orf65	missense	NM_138804:p.K180N
LU-1991	2	78722976	78722976	C	A	C	M	intergenic	NA	NA	NA
LU-1991	2	78722977	78722977	C	A	C	M	intergenic	NA	NA	NA
LU-1991	2	81277572	81277572	G	T	G	K	intergenic	NA	NA	NA
LU-1991	2	85621816	85621816	C	T	C	Y	intronic	MAT2A	NA	NA
LU-1991	2	88609945	88609945	C	T	C	Y	exonic	C2orf51	silent	NM_152670:p.L127L
LU-1991	2	90969460	90969460	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	2	104754592	104754592	C	A	C	M	intergenic	NA	NA	NA
LU-1991	2	105224759	105224759	C	A	C	M	exonic	GPR45	missense	NM_007227:p.N4K
LU-1991	2	105346156	105346156	G	T	G	K	intronic	FHL2	NA	NA
LU-1991	2	106352806	106352806	G	C	G	S	intergenic	NA	NA	NA
LU-1991	2	112305514	112305514	C	T	C	Y	intronic	ANAPC1	NA	NA
LU-1991	2	112977039	112977039	C	T	C	Y	exonic	TTL	missense	NM_153712:p.H229Y
LU-1991	2	113133798	113133798	G	A	G	R	exonic	SLC20A1	missense	NM_005415:p.G532D
LU-1991	2	116227309	116227309	C	A	C	M	exonic	DPP10	missense	NM_001004360:p.T340K
LU-1991	2	116288975	116288975	C	A	C	M	exonic	DPP10	missense	NM_001004360:p.Q606K
LU-1991	2	118299371	118299371	G	T	G	K	intronic	DDX18	NA	NA
LU-1991	2	120079309	120079309	C	T	C	Y	exonic	PCDP1	silent	NM_001029996:p.H83H
LU-1991	2	121460470	121460470	C	T	C	Y	exonic	GLI2	silent	NM_005270:p.P701K
LU-1991	2	136184151	136184151	A	T	A	W	exonic	R3HDM1	silent	NM_015361:p.V837V
LU-1991	2	141341548	141341548	G	-	A	*/-G	intronic	LRP1B	NA	NA
LU-1991	2	161613532	161613532	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	2	162067755	162067755	G	T	G	K	intergenic	NA	NA	NA
LU-1991	2	162447186	162447186	C	A	C	M	exonic	SLC4A10	missense	NM_022058:p.L364I
LU-1991	2	162759402	162759402	C	T	C	Y	intronic	FAP	NA	NA
LU-1991	2	162767918	162767918	G	T	G	K	intronic	FAP	NA	NA
LU-1991	2	163000262	163000262	G	T	G	K	exonic	KCNH7	missense	NM_033272:p.A549D
LU-1991	2	165729250	165729250	A	T	A	W	exonic	SCN3A	missense	NM_001081676:p.F167Y
LU-1991	2	167815498	167815498	G	T	G	K	exonic	XIRP2	missense	NM_152381:p.R3117L
LU-1991	2	172358479	172358479	C	A	C	M	exonic	SLC25A12	silent	NM_003705:p.V450V
LU-1991	2	174004534	174004534	T	A	T	W	intergenic	NA	NA	NA
LU-1991	2	178242616	178242616	G	A	G	R	intronic	PDE11A	NA	NA
LU-1991	2	185511592	185511592	C	A	C	M	exonic	ZNF804A	missense	NM_194250:p.P1075Q
LU-1991	2	188057205	188057205	C	A	C	M	intronic	TFPI	NA	NA
LU-1991	2	190136556	190136556	G	T	G	K	splicing	SLC40A1	silent	NM_014585:p.I467I
LU-1991	2	191989110	191989110	G	C	G	S	exonic	MYO1B	missense	NM_001161819:p.D1062H
LU-1991	2	206983819	206983819	G	T	G	K	intergenic	NA	NA	NA
LU-1991	2	208197280	208197280	G	A	G	R	exonic	FAM119A	missense	NM_001127395:p.A22V
LU-1991	2	209646780	209646780	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	2	210350255	210350255	G	T	G	K	exonic	UNC80	missense	NM_182587:p.E109D
LU-1991	2	228594762	228594762	G	T	G	K	exonic	SPHKAP	missense	NM_001142644:p.D202E
LU-1991	2	230632291	230632291	T	A	T	W	exonic	SLC16A14	missense	NM_152527:p.I8F
LU-1991	2	233118618	233118618	C	A	C	M	exonic	CHRN3	missense	NM_005199:p.P501Q
LU-1991	2	234581397	234581397	C	A	C	M	intronic	TRPM8	NA	NA
LU-1991	2	234581398	234581398	C	A	C	M	intronic	TRPM8	NA	NA
LU-1991	2	237930762	237930762	C	G	C	S	exonic	COL6A3	silent	NM_057166:p.G1576G
LU-1991	3	3055597	3055597	T	-	G	*/-T	intronic	CNTN4	NA	NA
LU-1991	3	15894685	15894685	A	G	A	R	intergenic	NA	NA	NA
LU-1991	3	16613405	16613405	T	C	T	Y	intronic	DAZL	NA	NA
LU-1991	3	25767600	25767600	C	A	C	M	exonic	NGLY1	missense	NM_001145295:p.L217F
LU-1991	3	38112387	38112387	G	A	G	R	exonic	DLEC1	missense	NM_007335:p.R706K
LU-1991	3	38238145	38238145	G	T	G	K	exonic	OXSR1	missense	NM_005109:p.G188V
LU-1991	3	39203099	39203099	G	T	G	K	exonic	XIRP1	missense	NM_001198621:p.P948T
LU-1991	3	39351774	39351774	C	A	C	M	intergenic	NA	NA	NA
LU-1991	3	43364226	43364226	G	A	G	R	exonic	SNRK	missense	NM_017719:p.E491K
LU-1991	3	43571774	43571774	C	A	C	M	splicing	ANO10	missense	NM_018075:p.Q556H
LU-1991	3	48483609	48483609	C	T	C	Y	exonic	TREX1	missense	NM_016381:p.T239I
LU-1991	3	69211988	69211988	C	A	C	M	exonic	UBA3	missense	NM_003968:p.K9N
LU-1991	3	99399586	99399586	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	3	109657390	109657390	G	T	G	K	exonic	MYH15	nonsense	NM_014981:p.C735X
LU-1991	3	117054125	117054125	G	C	G	S	exonic	LSAMP	missense	NM_002338:p.L182V

LU-1991	3	121013204	121013204	C	T	C	Y	exonic	NR1I2	silent	NM_033013:p.L154L
LU-1991	3	122673748	122673748	C	A	C	M	intronic	POLQ	NA	NA
LU-1991	3	123741932	123741932	C	G	C	S	intronic	PARP9	NA	NA
LU-1991	3	130526893	130526893	A	G	A	R	downstream	C3orf47	NA	NA
LU-1991	3	133589970	133589970	T	C	T	Y	intergenic	NA	NA	NA
LU-1991	3	141605301	141605301	C	G	C	S	exonic	CLSTN2	missense	NM_022131:p.Q125E
LU-1991	3	144705506	144705506	C	A	C	M	intronic	SLC9A9	NA	NA
LU-1991	3	155224746	155224746	T	A	T	W	downstream	LOC1005075	NA	NA
LU-1991	3	157245007	157245007	C	G	C	S	intergenic	NA	NA	NA
LU-1991	3	167031445	167031445	C	T	C	Y	exonic	BCHE	missense	NM_000055:p.G24E
LU-1991	3	181973588	181973588	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	3	184924863	184924863	T	G	T	K	intronic	YEATS2	NA	NA
LU-1991	3	185523013	185523013	T	G	T	K	intronic	EIF4G1	NA	NA
LU-1991	3	186735374	186735374	G	C	G	S	exonic	LIPH	missense	NM_139248:p.S97C
LU-1991	3	187961797	187961797	C	A	C	M	intergenic	NA	NA	NA
LU-1991	3	188571645	188571645	A	G	A	R	exonic	RTP4	silent	NM_022147:p.L177L
LU-1991	3	198198788	198198788	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	4	2067351	2067351	C	A	C	M	intronic	POLN	NA	NA
LU-1991	4	2099666	2099666	C	A	C	M	exonic	POLN	missense	NM_181808:p.D652Y
LU-1991	4	6134442	6134442	C	G	C	S	intronic	JAKMIP1	NA	NA
LU-1991	4	9307476	9307476	G	A	G	R	intergenic	NA	NA	NA
LU-1991	4	12947400	12947400	A	G	A	R	ncRNA	HSP90AB2P	NA	NA
LU-1991	4	20102491	20102491	C	A	C	M	exonic	SLIT2	nonsense	NM_004787:p.S262X
LU-1991	4	26633566	26633566	A	T	A	W	exonic	STIM2	silent	NM_001169118:p.S705S
LU-1991	4	30332274	30332274	C	A	C	M	exonic	PCDH7	silent	NM_001173523:p.A44A
LU-1991	4	40045622	40045622	C	T	C	Y	intronic	CHRNA9	NA	NA
LU-1991	4	42245714	42245714	T	A	T	W	ncRNA	MIR548M	NA	NA
LU-1991	4	42717246	42717246	C	G	C	S	intronic	GRXCR1	NA	NA
LU-1991	4	47807369	47807369	C	T	C	Y	exonic	TXK	missense	NM_003328:p.G130D
LU-1991	4	48788919	48788919	T	C	T	Y	intergenic	NA	NA	NA
LU-1991	4	48811957	48811957	C	G	C	S	intergenic	NA	NA	NA
LU-1991	4	48816898	48816898	T	C	T	Y	intergenic	NA	NA	NA
LU-1991	4	71235927	71235927	C	G	C	S	exonic	CABS1	silent	NM_033122:p.S194S
LU-1991	4	71382154	71382154	C	A	C	M	exonic	MUC7	missense	NM_001145007:p.N368K
LU-1991	4	77474207	77474207	C	A	C	M	exonic	CCDC158	silent	NM_001042784:p.L934L
LU-1991	4	82186664	82186664	C	A	C	M	exonic	BMP3	silent	NM_001201:p.T355T
LU-1991	4	83566334	83566334	A	T	A	W	ncRNA	HNRPDL	NA	NA
LU-1991	4	99188976	99188976	C	T	C	Y	intronic	C4orf37	NA	NA
LU-1991	4	108344306	108344306	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	4	116011556	116011556	C	A	C	M	splicing	NDST4	NA	NA
LU-1991	4	126631264	126631264	C	G	C	S	exonic	FAT4	missense	NM_024582:p.P4613A
LU-1991	4	129262756	129262756	G	T	G	K	exonic	LARP1B	missense	NM_178043:p.W496L
LU-1991	4	129262757	129262757	G	A	G	R	exonic	LARP1B	nonsense	NM_178043:p.W496X
LU-1991	4	134330786	134330786	T	A	T	W	UTR3	PCDH10	NA	NA
LU-1991	4	142870498	142870498	G	T	G	K	exonic	IL15	missense	NM_172174:p.V97F
LU-1991	4	143545765	143545765	A	C	A	M	intronic	INPP4B	NA	NA
LU-1991	4	164658041	164658041	C	A	C	M	exonic	C4orf43	missense	NM_018352:p.P132T
LU-1991	4	189250134	189250134	C	T	C	Y	intronic	TRIML2	NA	NA
LU-1991	4	189897591	189897591	G	T	G	K	intergenic	NA	NA	NA
LU-1991	5	893813	893813	G	A	G	R	intronic	ZDHHC11	NA	NA
LU-1991	5	6684976	6684976	T	C	T	Y	intronic	NSUN2	NA	NA
LU-1991	5	6806201	6806201	G	T	G	K	intronic	PAPD7	NA	NA
LU-1991	5	11399817	11399817	C	A	C	M	intronic	CTNND2	NA	NA
LU-1991	5	19519245	19519245	C	A	C	M	exonic	CDH18	missense	NM_001167667:p.M565I
LU-1991	5	20340540	20340540	C	G	C	S	intergenic	NA	NA	NA
LU-1991	5	28963122	28963122	G	A	G	R	ncRNA	LOC729862	NA	NA
LU-1991	5	33198366	33198366	G	T	G	K	intergenic	NA	NA	NA
LU-1991	5	37213439	37213439	G	T	G	K	intronic	C5orf42	NA	NA
LU-1991	5	37388585	37388585	G	C	G	S	intronic	NUP155	NA	NA
LU-1991	5	43680261	43680261	A	G	A	R	intronic	NNT	NA	NA
LU-1991	5	54365322	54365322	A	C	A	M	intronic	GZMK	NA	NA
LU-1991	5	60223906	60223906	T	C	T	Y	intronic	ERCC8	NA	NA
LU-1991	5	63292603	63292603	C	A	C	M	exonic	HTR1A	nonsense	NM_000524:p.E234X
LU-1991	5	64557639	64557639	C	T	C	Y	intronic	ADAMTS6	NA	NA
LU-1991	5	75463346	75463346	C	A	C	M	exonic	SV2C	nonsense	NM_014979:p.Y5X
LU-1991	5	75708506	75708506	C	A	C	M	intergenic	NA	NA	NA
LU-1991	5	76794685	76794685	T	C	T	Y	exonic	WDR41	silent	NM_018268:p.R113R
LU-1991	5	79805463	79805463	G	A	G	R	intronic	ZFYVE16	NA	NA
LU-1991	5	107957521	107957521	G	T	G	K	intergenic	NA	NA	NA
LU-1991	5	118374082	118374082	C	A	C	M	intergenic	NA	NA	NA
LU-1991	5	127651017	127651017	G	T	G	K	exonic	FBN2	silent	NM_001999:p.I2254I
LU-1991	5	140148263	140148263	G	C	G	S	exonic	PCDHA1	missense	NM_018900:p.G735A
LU-1991	5	140162269	140162269	C	A	C	M	exonic	PCDHA3	missense	NM_018906:p.L435M
LU-1991	5	140168310	140168310	G	T	G	K	exonic	PCDHA4	missense	NM_018907:p.A452S
LU-1991	5	140209654	140209654	G	C	G	S	exonic	PCDHA9	missense	NM_031857:p.V464L
LU-1991	5	147459074	147459074	G	A	G	R	intronic	SPINK5	NA	NA
LU-1991	5	161256708	161256708	A	C	A	M	exonic	GABRA1	missense	NM_001127648:p.K358T
LU-1991	5	167912187	167912187	C	A	C	M	intergenic	NA	NA	NA
LU-1991	5	170278394	170278394	G	T	G	K	exonic	RANBP17	nonsense	NM_022897:p.G343X

LU-1991	5	176246670	176246670	C	A	C	M	exonic	HK3	missense	NM_002115:p.G599V
LU-1991	6	6740593	6740593	T	C	T	Y	intergenic	NA	NA	NA
LU-1991	6	26024136	26024136	G	T	G	K	intronic	SLC17A2	NA	NA
LU-1991	6	26216075	26216075	C	T	C	Y	exonic	HIST1H1T	missense	NM_005323:p.D76N
LU-1991	6	26519365	26519365	G	C	G	S	intronic	BTN3A1	NA	NA
LU-1991	6	31583362	31583362	C	T	C	Y	intronic	MICB	NA	NA
LU-1991	6	33397647	33397647	C	G	C	S	exonic	DAXX	missense	NM_001141969:p.D12H
LU-1991	6	36212736	36212736	C	G	C	S	intronic	MAPK13	NA	NA
LU-1991	6	38939692	38939692	T	A	T	W	exonic	DNAH8	missense	NM_001371:p.S1909T
LU-1991	6	40068495	40068495	G	T	G	K	intergenic	NA	NA	NA
LU-1991	6	43254035	43254035	G	T	G	K	exonic	SRF	silent	NM_003131:p.T396T
LU-1991	6	50084745	50084745	T	A	T	W	downstream	DEFB110	NA	NA
LU-1991	6	50097578	50097578	C	T	C	Y	exonic	DEFB110	silent	NM_001037497:p.L10L
LU-1991	6	52764783	52764783	A	C	A	M	intronic	GSTA1	NA	NA
LU-1991	6	53351585	53351585	C	A	C	M	intergenic	NA	NA	NA
LU-1991	6	55322870	55322870	T	A	T	W	exonic	GFRAL	missense	NM_207410:p.F113Y
LU-1991	6	64474055	64474055	C	T	C	Y	exonic	PHF3	missense	NM_015153:p.T1182M
LU-1991	6	80688276	80688276	T	C	T	Y	intronic	ELOVL4	NA	NA
LU-1991	6	85503281	85503281	C	G	C	S	exonic	TBX18	missense	NM_001080508:p.L555F
LU-1991	6	86054152	86054152	C	-	T	*/-C	intergenic	NA	NA	NA
LU-1991	6	105338881	105338881	C	G	C	S	intronic	HACE1	NA	NA
LU-1991	6	116863903	116863903	G	T	G	K	exonic	DSE	missense	NM_001080976:p.A527S
LU-1991	6	127649791	127649791	T	G	T	K	exonic	RNF146	missense	NM_030963:p.W113G
LU-1991	6	127941611	127941611	G	T	G	K	splicing	C6orf58	NA	NA
LU-1991	6	128072791	128072791	T	C	T	Y	UTR3	THEMIS	NA	NA
LU-1991	6	131263970	131263970	G	T	G	K	exonic	EPB41L2	missense	NM_001199389:p.R325S
LU-1991	6	134533210	134533210	G	A	G	R	exonic	SGK1	silent	NM_001143676:p.P490P
LU-1991	6	139306867	139306867	T	A	T	W	intronic	REPS1	NA	NA
LU-1991	6	152824385	152824385	G	T	G	K	intronic	SYNE1	NA	NA
LU-1991	6	160033761	160033761	G	T	G	K	exonic	SOD2	missense	NM_000636:p.H50N
LU-1991	6	160388381	160388381	G	A	G	R	intronic	IGF2R	NA	NA
LU-1991	6	169367253	169367253	G	C	G	S	exonic	THBS2	silent	NM_003247:p.A895A
LU-1991	7	6764010	6764010	A	G	A	R	intergenic	NA	NA	NA
LU-1991	7	20664717	20664717	G	A	G	R	exonic	ABCB5	missense	NM_001163993:p.A89T
LU-1991	7	27839084	27839084	G	C	G	S	exonic	JAZF1	missense	NM_175061:p.H198D
LU-1991	7	29098722	29098722	G	A	G	R	intronic	CPVL	NA	NA
LU-1991	7	29932598	29932598	C	T	C	Y	exonic	SCRN1	missense	NM_001145514:p.D381N
LU-1991	7	30055337	30055337	G	T	G	K	intronic	PLEKHA8	NA	NA
LU-1991	7	35175424	35175424	C	A	C	M	intergenic	NA	NA	NA
LU-1991	7	36287257	36287257	G	A	G	R	exonic	EEPDI1	silent	NM_030636:p.T313T
LU-1991	7	37123313	37123313	G	C	G	S	intronic	ELMO1	NA	NA
LU-1991	7	37139404	37139404	G	T	G	K	intronic	ELMO1	NA	NA
LU-1991	7	47861271	47861271	T	G	T	K	intronic	PKD1L1	NA	NA
LU-1991	7	47935262	47935262	C	T	C	Y	intronic	PKD1L1	NA	NA
LU-1991	7	53038596	53038596	A	G	A	R	intergenic	NA	NA	NA
LU-1991	7	61483015	61483015	G	A	G	R	intergenic	NA	NA	NA
LU-1991	7	65133994	65133994	C	A	C	M	intergenic	NA	NA	NA
LU-1991	7	65741693	65741693	C	T	C	Y	UTR3	KCTD7	NA	NA
LU-1991	7	75059403	75059403	G	A	G	R	intronic	HIP1	NA	NA
LU-1991	7	84451736	84451736	G	T	G	K	intergenic	NA	NA	NA
LU-1991	7	87355230	87355230	A	T	A	W	intronic	DBF4	NA	NA
LU-1991	7	98996111	98996111	G	T	G	K	UTR5	ZNF655	NA	NA
LU-1991	7	99634935	99634935	C	G	C	S	intronic	STAG3	NA	NA
LU-1991	7	100119673	100119673	C	G	C	S	exonic	GIGYF1	missense	NM_022574:p.G592R
LU-1991	7	100479308	100479308	G	T	G	K	intronic	MUC17	NA	NA
LU-1991	7	102994403	102994403	C	T	C	Y	exonic	RELN	nonsense	NM_005045:p.W1543X
LU-1991	7	103596153	103596153	A	T	A	W	exonic	ORC5	missense	NM_181747:p.L294N
LU-1991	7	106311891	106311891	C	-	A	*/-C	exonic	PIK3CG	FS_del	NM_002649:p.T939fs
LU-1991	7	107451916	107451916	T	A	T	W	intronic	LAMB4	NA	NA
LU-1991	7	111914398	111914398	G	A	G	R	intronic	C7orf53	NA	NA
LU-1991	7	117667183	117667183	G	T	G	K	intronic	ANKRD7	NA	NA
LU-1991	7	118378359	118378359	G	A	G	R	intergenic	NA	NA	NA
LU-1991	7	128043189	128043189	A	G	A	R	intergenic	NA	NA	NA
LU-1991	7	128283850	128283850	C	G	C	S	exonic	FLNC	missense	NM_001127487:p.Q2399E
LU-1991	7	132641212	132641212	G	C	G	S	exonic	EXOC4	silent	NM_021807:p.V171V
LU-1991	7	142335346	142335346	G	C	G	S	exonic	TRPV5	missense	NM_019841:p.L290V
LU-1991	7	142720212	142720212	A	T	A	W	intergenic	NA	NA	NA
LU-1991	7	146495420	146495420	A	T	A	W	intronic	CNTNAP2	NA	NA
LU-1991	8	403021	403021	G	C	G	S	exonic	FBXO25	missense	NM_183421:p.L286F
LU-1991	8	14211473	14211473	A	G	A	R	intronic	SGCZ	NA	NA
LU-1991	8	15525059	15525059	C	A	C	M	exonic	TUSC3	missense	NM_178234:p.P80T
LU-1991	8	15525160	15525160	C	A	C	M	intronic	TUSC3	NA	NA
LU-1991	8	21982753	21982753	C	G	C	S	intronic	EPB49	NA	NA
LU-1991	8	22482596	22482596	C	T	C	Y	intronic	SORBS3	NA	NA
LU-1991	8	23768012	23768012	T	G	T	K	UTR5	STC1	NA	NA
LU-1991	8	27522531	27522531	A	T	A	W	intronic	CLU	NA	NA
LU-1991	8	47902172	47902172	G	A	G	R	intergenic	NA	NA	NA
LU-1991	8	61495080	61495080	G	-	A	*/-G	intergenic	NA	NA	NA
LU-1991	8	74352533	74352533	T	C	T	Y	intergenic	NA	NA	NA

LU-1991	8	82692938	82692938	T	C	T	Y	intergenic	NA	NA	NA
LU-1991	8	91126325	91126325	C	T	C	Y	exonic	DECR1	silent	NM_001359:p.L271L
LU-1991	8	95919812	95919812	A	G	A	R	intronic	INTS8	NA	NA
LU-1991	8	107297728	107297728	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	8	113387355	113387355	C	A	C	M	intronic	CSMD3	NA	NA
LU-1991	8	120700676	120700676	T	C	T	Y	exonic	ENPP2	silent	NM_006209:p.E156E
LU-1991	8	125153072	125153072	C	G	C	S	intronic	FER1L6	NA	NA
LU-1991	8	125603505	125603505	A	C	A	M	ncRNA	TATDN1	NA	NA
LU-1991	8	141477097	141477097	G	A	G	R	intronic	TRAPPC9	NA	NA
LU-1991	8	143405249	143405249	G	C	G	S	intronic	TSNARE1	NA	NA
LU-1991	8	144872126	144872126	C	T	C	Y	intronic	MAPK15	NA	NA
LU-1991	9	15469564	15469564	G	C	G	S	intronic	PSIP1	NA	NA
LU-1991	9	18918405	18918405	G	T	G	K	exonic	FAM154A	missense	NM_153707:p.P357H
LU-1991	9	19775876	19775876	C	T	C	Y	intronic	SLC24A2	NA	NA
LU-1991	9	30790226	30790226	G	T	G	K	intergenic	NA	NA	NA
LU-1991	9	66197087	66197087	C	G	C	S	intergenic	NA	NA	NA
LU-1991	9	67905421	67905421	G	A	G	R	intergenic	NA	NA	NA
LU-1991	9	68737687	68737687	A	T	A	W	intergenic	NA	NA	NA
LU-1991	9	72341985	72341985	G	T	G	K	exonic	TRPM3	silent	NM_206945:p.A1125A
LU-1991	9	85642294	85642294	A	T	A	W	intronic	KIF27	NA	NA
LU-1991	9	89448233	89448233	T	C	T	Y	intronic	DAPK1	NA	NA
LU-1991	9	89448234	89448234	T	C	T	Y	intronic	DAPK1	NA	NA
LU-1991	9	89935585	89935585	C	G	C	S	exonic	FAM75C2	missense	NM_001166137:p.E729D
LU-1991	9	94689414	94689414	G	T	G	K	intergenic	NA	NA	NA
LU-1991	9	96102064	96102064	A	T	A	W	exonic	ZNF169	nonsense	NM_194320:p.R135X
LU-1991	9	98837031	98837031	C	A	C	M	intronic	CTSL2	NA	NA
LU-1991	9	103211532	103211532	G	A	G	R	exonic	ZNF189	missense	NM_003452:p.G554D
LU-1991	9	107324696	107324696	G	C	G	S	intronic	FSD1L	NA	NA
LU-1991	9	115227554	115227554	G	T	G	K	intronic	C9orf43	NA	NA
LU-1991	9	124628624	124628624	C	G	C	S	intronic	PDCL	NA	NA
LU-1991	9	126285173	126285173	T	A	T	W	intronic	NR5A1	NA	NA
LU-1991	9	130792201	130792201	G	A	G	R	intronic	NUP188	NA	NA
LU-1991	9	134196522	134196522	T	C	T	Y	exonic	SETX	missense	NM_015046:p.N325D
LU-1991	9	135507975	135507975	C	G	C	S	intronic	DBH	NA	NA
LU-1991	9	137781716	137781716	C	T	C	Y	intronic	KCNT1	NA	NA
LU-1991	9	137811066	137811066	C	A	C	M	exonic	KCNT1	missense	NM_020822:p.P924T
LU-1991	9	137811067	137811067	C	A	C	M	exonic	KCNT1	missense	NM_020822:p.P924H
LU-1991	9	139007283	139007283	G	T	G	K	intronic	C9orf142	NA	NA
LU-1991	9	139261954	139261954	G	C	G	S	exonic	FAM166A	missense	NM_001001710:p.P12R
LU-1991	10	13291152	13291152	C	T	C	Y	intronic	MCM10	NA	NA
LU-1991	10	15160750	15160750	C	A	C	M	exonic	ACBD7	nonsense	NM_001039844:p.G47X
LU-1991	10	15726035	15726035	C	T	C	Y	splicing	ITGA8	missense	NM_003638:p.D467N
LU-1991	10	26599801	26599801	G	C	G	S	intronic	GAD2	NA	NA
LU-1991	10	27334457	27334457	T	C	T	Y	UTR3	ANKRD26	NA	NA
LU-1991	10	33514567	33514567	C	T	C	Y	exonic	NRP1	missense	NM_003873:p.C809Y
LU-1991	10	45515222	45515222	C	G	C	S	intergenic	NA	NA	NA
LU-1991	10	49985924	49985924	C	G	C	S	exonic	C10orf72	missense	NM_144984:p.V60L
LU-1991	10	50542870	50542870	G	T	G	K	exonic	CHAT	silent	NM_020984:p.V555V
LU-1991	10	50651244	50651244	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	10	52240802	52240802	G	A	G	R	intronic	A1CF	NA	NA
LU-1991	10	76405173	76405173	A	T	A	W	exonic	MYST4	missense	NM_012330:p.S358C
LU-1991	10	76460459	76460459	G	T	G	K	exonic	MYST4	silent	NM_012330:p.R1957R
LU-1991	10	82172228	82172228	G	A	G	R	exonic	C10orf58	missense	NM_032333:p.C85Y
LU-1991	10	89458849	89458849	G	A	G	R	intronic	PAPSS2	NA	NA
LU-1991	10	96655834	96655834	C	A	C	M	intergenic	NA	NA	NA
LU-1991	10	118296999	118296999	C	A	C	M	intronic	PNLIP	NA	NA
LU-1991	10	118499633	118499633	C	A	C	M	intergenic	NA	NA	NA
LU-1991	10	121426442	121426442	G	T	G	K	exonic	BAG3	silent	NM_004281:p.L462L
LU-1991	10	134849851	134849851	T	A	T	W	exonic	KNDC1	missense	NM_152643:p.F337I
LU-1991	11	488786	488786	G	A	G	R	exonic	RNH1	silent	NM_203384:p.P254P
LU-1991	11	4660044	4660044	C	G	C	S	exonic	OR51E2	silent	NM_030774:p.L158L
LU-1991	11	5818851	5818851	G	T	G	K	exonic	OR52E6	missense	NM_001005167:p.P285T
LU-1991	11	8916121	8916121	C	G	C	S	exonic	ASCL3	missense	NM_020646:p.R55P
LU-1991	11	11115858	11115858	G	C	G	S	intergenic	NA	NA	NA
LU-1991	11	11115893	11115893	G	C	G	S	intergenic	NA	NA	NA
LU-1991	11	17504425	17504425	G	T	G	K	intronic	USH1C	NA	NA
LU-1991	11	18152036	18152036	G	T	G	K	exonic	MRGPRX4	silent	NM_054032:p.L219L
LU-1991	11	18688923	18688923	T	C	T	Y	exonic	IGSF22	silent	NM_173588:p.Q809Q
LU-1991	11	18849358	18849358	T	C	T	Y	intergenic	NA	NA	NA
LU-1991	11	18912330	18912330	C	A	C	M	exonic	MRGPRX1	missense	NM_147199:p.G193V
LU-1991	11	27868147	27868147	C	G	C	S	intergenic	NA	NA	NA
LU-1991	11	44597297	44597297	G	A	G	R	UTR3	CD82	NA	NA
LU-1991	11	49839197	49839197	C	A	C	M	intergenic	NA	NA	NA
LU-1991	11	57597178	57597178	T	C	T	Y	intronic	OR9Q1	NA	NA
LU-1991	11	57727622	57727622	G	C	G	S	exonic	OR1S2	nonsense	NM_001004459:p.S203X
LU-1991	11	57873378	57873378	A	G	A	R	intergenic	NA	NA	NA
LU-1991	11	57926725	57926725	G	C	G	S	exonic	OR5B3	missense	NM_001005469:p.A245G
LU-1991	11	58981426	58981426	G	A	G	R	exonic	OR4D6	silent	NM_001004708:p.E139E
LU-1991	11	60395024	60395024	G	T	G	K	exonic	ZP1	missense	NM_207341:p.R282I



LU-1991	11	61943089	61943089	C	G	C	S	UTR5	SCGB1A1	NA	NA
LU-1991	11	64639558	64639558	A	G	A	R	exonic	TM7SF2	silent	NM_003273:p.K336K
LU-1991	11	65948171	65948171	C	A	C	M	exonic	NPAS4	missense	NM_178864:p.L412I
LU-1991	11	68460620	68460620	G	T	G	K	exonic	IGHMBP2	missense	NM_002180:p.G699V
LU-1991	11	75915394	75915394	A	G	A	R	intronic	C11orf30	NA	NA
LU-1991	11	84841615	84841615	G	T	G	K	intronic	DLG2	NA	NA
LU-1991	11	87940653	87940653	C	A	C	M	exonic	GRM5	nonsense	NM_000842:p.E616X
LU-1991	11	87940654	87940654	C	A	C	M	exonic	GRM5	missense	NM_000842:p.R615S
LU-1991	11	88551231	88551231	G	T	G	K	exonic	TYR	silent	NM_000372:p.G154G
LU-1991	11	104378160	104378160	C	-	G	*/-C	ncRNA	CASP5	NA	NA
LU-1991	11	119197923	119197923	T	C	T	Y	intergenic	NA	NA	NA
LU-1991	11	124806530	124806530	C	A	C	M	UTR3	PKNOX2	NA	NA
LU-1991	11	131904164	131904164	C	A	C	M	splicing	OPCML	NA	NA
LU-1991	12	1810634	1810634	G	T	G	K	exonic	LRTM2	missense	NM_001163925:p.D114Y
LU-1991	12	4606164	4606164	C	A	C	M	exonic	AKAP3	missense	NM_006422:p.G722V
LU-1991	12	21241412	21241412	C	T	C	Y	intronic	SLCO1B1	NA	NA
LU-1991	12	37321120	37321120	A	T	A	W	intergenic	NA	NA	NA
LU-1991	12	38963996	38963996	G	T	G	K	exonic	LRRK2	missense	NM_198578:p.G765V
LU-1991	12	38973634	38973634	G	T	G	K	exonic	LRRK2	missense	NM_198578:p.V904L
LU-1991	12	38984189	38984189	A	T	A	W	exonic	LRRK2	missense	NM_198578:p.N1255Y
LU-1991	12	40253811	40253811	T	C	T	Y	exonic	PDZRN4	missense	NM_013377:p.I730T
LU-1991	12	42462517	42462517	G	A	G	R	exonic	IRAK4	missense	NM_001114182:p.R361H
LU-1991	12	51063841	51063841	G	C	G	S	exonic	KRT84	missense	NM_033045:p.F185L
LU-1991	12	51106723	51106723	C	T	C	Y	intronic	KRT75	NA	NA
LU-1991	12	54045416	54045416	A	T	A	W	exonic	OR6C75	silent	NM_001005497:p.T85T
LU-1991	12	55818415	55818415	A	C	A	M	intronic	LRP1	NA	NA
LU-1991	12	65276830	65276830	T	A	T	W	intronic	GRIP1	NA	NA
LU-1991	12	66658375	66658375	C	A	C	M	intergenic	NA	NA	NA
LU-1991	12	67386750	67386750	G	C	G	S	intronic	NUP107	NA	NA
LU-1991	12	67411358	67411358	T	-	A	*/-T	intronic	NUP107	NA	NA
LU-1991	12	67931302	67931302	G	T	G	K	exonic	CPSF6	missense	NM_007007:p.D63Y
LU-1991	12	68042907	68042907	G	-	T	*/-G	exonic	YEATS4	FS_del	NM_006530:p.G42fs
LU-1991	12	75902244	75902244	G	T	G	K	intergenic	NA	NA	NA
LU-1991	12	75973987	75973987	C	G	C	S	exonic	E2F7	missense	NM_203394:p.E50Q
LU-1991	12	92559144	92559144	C	A	C	M	intergenic	NA	NA	NA
LU-1991	12	94431758	94431758	A	G	A	R	exonic	METAP2	missense	NM_006838:p.I462V
LU-1991	12	94790303	94790303	C	T	C	Y	exonic	CCDC38	missense	NM_182496:p.E449K
LU-1991	12	99536303	99536303	G	-	A	*/-G	intronic	GAS2L3	NA	NA
LU-1991	12	103991796	103991796	C	A	C	M	exonic	ALDH1L2	missense	NM_001034173:p.D56Y
LU-1991	12	104043865	104043865	G	A	G	R	intronic	KIAA1033	NA	NA
LU-1991	12	105917604	105917604	G	A	G	R	exonic	CRY1	missense	NM_004075:p.A331V
LU-1991	12	113598707	113598707	C	A	C	M	intronic	TBX3	NA	NA
LU-1991	12	117531140	117531140	G	T	G	K	intergenic	NA	NA	NA
LU-1991	12	119451285	119451285	G	T	G	K	exonic	COQ5	missense	NM_032314:p.R15S
LU-1991	12	121329491	121329491	C	G	C	S	intronic	CLIP1	NA	NA
LU-1991	12	122244906	122244906	C	T	C	Y	exonic	MPHOSPH9	missense	NM_022782:p.E589K
LU-1991	12	129214226	129214226	C	T	C	Y	exonic	FZD10	silent	NM_007197:p.P262P
LU-1991	12	131120139	131120139	G	C	G	S	splicing	EP400	missense	NM_015409:p.Q3006H
LU-1991	13	22719239	22719239	A	T	A	W	intronic	SGCG	NA	NA
LU-1991	13	31666447	31666447	A	G	A	R	intronic	FRY	NA	NA
LU-1991	13	41771905	41771905	G	A	G	R	exonic	AKAP11	missense	NM_016248:p.M341I
LU-1991	13	44871252	44871252	C	T	C	Y	intronic	SLC25A30	NA	NA
LU-1991	13	47791071	47791071	A	T	A	W	intronic	RB1	NA	NA
LU-1991	13	58003070	58003070	C	A	C	M	intergenic	NA	NA	NA
LU-1991	13	89442925	89442925	C	G	C	S	intergenic	NA	NA	NA
LU-1991	13	96437448	96437448	C	T	C	Y	exonic	OXGR1	silent	NM_080818:p.S189S
LU-1991	13	100118796	100118796	G	A	G	R	intronic	TMTC4	NA	NA
LU-1991	13	100118797	100118797	G	A	G	R	intronic	TMTC4	NA	NA
LU-1991	13	100118798	100118798	C	A	C	M	intronic	TMTC4	NA	NA
LU-1991	13	100849404	100849404	C	T	C	Y	exonic	NALCN	silent	NM_052867:p.S25S
LU-1991	13	109954443	109954443	C	T	C	Y	intronic	COL4A2	NA	NA
LU-1991	13	112784792	112784792	A	G	A	R	exonic	MCF2L	silent	NM_001112732:p.T699T
LU-1991	13	113609349	113609349	A	G	A	R	intronic	FAM70B	NA	NA
LU-1991	14	18180251	18180251	A	C	A	M	intergenic	NA	NA	NA
LU-1991	14	18180263	18180263	T	C	T	Y	intergenic	NA	NA	NA
LU-1991	14	19155024	19155024	G	T	G	K	intergenic	NA	NA	NA
LU-1991	14	19833384	19833384	G	A	G	R	exonic	TTC5	missense	NM_138376:p.P329S
LU-1991	14	22963239	22963239	G	T	G	K	intronic	MYH7	NA	NA
LU-1991	14	30712334	30712334	C	A	C	M	exonic	HECTD1	missense	NM_015382:p.G312V
LU-1991	14	34618153	34618153	C	G	C	S	intronic	FAM177A1	NA	NA
LU-1991	14	36202355	36202355	G	T	G	K	exonic	PAX9	silent	NM_006194:p.A169A
LU-1991	14	38779622	38779622	G	-	A	*/-G	intronic	MIA2	NA	NA
LU-1991	14	46459051	46459051	G	A	G	R	exonic	MDGA2	missense	NM_001113498:p.R718C
LU-1991	14	50294857	50294857	T	G	T	K	exonic	NIN	missense	NM_182946:p.K881Q
LU-1991	14	52296167	52296167	T	G	T	K	exonic	STYX	missense	NM_001130701:p.V150G
LU-1991	14	59681495	59681495	G	C	G	S	intronic	DHR57	NA	NA
LU-1991	14	62141885	62141885	T	A	T	W	intergenic	NA	NA	NA
LU-1991	14	69566916	69566916	C	G	C	S	UTR3	SMOC1	NA	NA
LU-1991	14	70532403	70532403	G	T	G	K	intronic	PCNX	NA	NA

LU-1991	14	72710088	72710088	C	T	C	Y	exonic	PSEN1	silent	NM_007318:p.L130L
LU-1991	14	81452390	81452390	G	T	G	K	intergenic	NA	NA	NA
LU-1991	14	88407608	88407608	G	T	G	K	intronic	TTC8	NA	NA
LU-1991	14	91045710	91045710	G	A	G	R	exonic	SMEK1	missense	NM_032560:p.T12M
LU-1991	14	92720047	92720047	T	A	T	W	exonic	MOAP1	silent	NM_022151:p.P98P
LU-1991	14	94168246	94168246	C	G	C	S	intergenic	NA	NA	NA
LU-1991	14	95841921	95841921	A	T	A	W	intronic	ATG2B	NA	NA
LU-1991	14	101586627	101586627	G	T	G	K	exonic	DYNC1H1	missense	NM_001376:p.G4639C
LU-1991	14	102671333	102671333	G	T	G	K	exonic	TNFAIP2	silent	NM_006291:p.L616L
LU-1991	14	104680229	104680229	C	A	C	M	exonic	JAG2	missense	NM_002226:p.D1189Y
LU-1991	14	104928977	104928977	G	T	G	K	intronic	PACS2	NA	NA
LU-1991	15	19062517	19062517	G	-	T	*-/G	intergenic	NA	NA	NA
LU-1991	15	21021330	21021330	G	-	T	*-/G	intergenic	NA	NA	NA
LU-1991	15	23021579	23021579	G	T	G	K	ncRNA	SNORD115-2	NA	NA
LU-1991	15	23476497	23476497	C	T	C	Y	exonic	ATP10A	missense	NM_024490:p.V1244M
LU-1991	15	36021759	36021759	G	T	G	K	intronic	TMCOSA	NA	NA
LU-1991	15	39890448	39890448	G	A	G	R	intronic	MAPKBP1	NA	NA
LU-1991	15	40531226	40531226	C	A	C	M	exonic	ZFP106	missense	NM_022473:p.G156V
LU-1991	15	41571191	41571191	A	T	A	W	exonic	TP53BP1	silent	NM_001141980:p.I113I
LU-1991	15	50396587	50396587	C	A	C	M	exonic	MYO5A	missense	NM_001142495:p.D1735Y
LU-1991	15	53763422	53763422	C	G	C	S	splicing	PRTG	NA	NA
LU-1991	15	55518395	55518395	T	A	T	W	exonic	CGNL1	silent	NM_032866:p.T302T
LU-1991	15	56931363	56931363	A	C	A	M	exonic	FAM63B	missense	NM_001040450:p.K548N
LU-1991	15	72361104	72361104	C	G	C	S	intronic	CCDC33	NA	NA
LU-1991	15	73438537	73438537	G	A	G	R	exonic	MAN2C1	missense	NM_006715:p.S686F
LU-1991	15	75260398	75260398	T	C	T	Y	exonic	PEAK1	missense	NM_024776:p.Y309C
LU-1991	15	76811364	76811364	G	T	G	K	intergenic	NA	NA	NA
LU-1991	15	86224466	86224466	C	T	C	Y	intronic	NTRK3	NA	NA
LU-1991	15	99938804	99938804	T	A	T	W	intergenic	NA	NA	NA
LU-1991	15	100041746	100041746	C	T	C	Y	intronic	TARSL2	NA	NA
LU-1991	16	2520476	2520476	A	T	A	W	exonic	AMDHD2	silent	NM_001145815:p.T500T
LU-1991	16	4599718	4599718	G	C	G	S	exonic	FAM100A	missense	NM_145253:p.P151A
LU-1991	16	4775777	4775777	C	T	C	Y	intronic	12-Sep	NA	NA
LU-1991	16	20379016	20379016	A	T	A	W	exonic	ACSM2A	missense	NM_001010845:p.S27C
LU-1991	16	20903846	20903846	G	T	G	K	intronic	DNAH3	NA	NA
LU-1991	16	21881438	21881438	T	A	T	W	intronic	UQCRC2	NA	NA
LU-1991	16	23602841	23602841	A	T	A	W	exonic	PLK1	silent	NM_005030:p.P322P
LU-1991	16	30424275	30424275	C	A	C	M	exonic	ITGAL	missense	NM_002209:p.S786Y
LU-1991	16	33397459	33397459	G	A	G	R	intergenic	NA	NA	NA
LU-1991	16	34640057	34640057	C	A	C	M	intergenic	NA	NA	NA
LU-1991	16	45719710	45719710	C	A	C	M	intronic	NETO2	NA	NA
LU-1991	16	48114988	48114988	G	T	G	K	intronic	ZNF423	NA	NA
LU-1991	16	48675701	48675701	A	C	A	M	exonic	HEATR3	missense	NM_182922:p.K430Q
LU-1991	16	49733015	49733015	C	T	C	Y	exonic	SALL1	missense	NM_002968:p.V207M
LU-1991	16	52256505	52256505	C	G	C	S	intronic	RPGRIPL	NA	NA
LU-1991	16	53920038	53920038	C	A	C	M	intronic	IRX6	NA	NA
LU-1991	16	70330604	70330604	C	A	C	M	intronic	AP1G1	NA	NA
LU-1991	16	70699822	70699822	G	T	G	K	intronic	DHX38	NA	NA
LU-1991	16	73223888	73223888	-	CC	G	*-/CC	intronic	RFWD3	NA	NA
LU-1991	16	79652417	79652417	A	T	A	W	exonic	C16orf46	silent	NM_152337:p.S346S
LU-1991	16	79772362	79772362	G	C	G	S	exonic	PKD1L2	missense	NM_001076780:p.C671W
LU-1991	16	80689448	80689448	G	A	G	R	exonic	HSD17B2	missense	NM_002153:p.G357D
LU-1991	16	82786039	82786039	G	C	G	S	splicing	ADAD2	NA	NA
LU-1991	16	83073763	83073763	T	C	T	Y	exonic	KIAA1609	missense	NM_020947:p.H338R
LU-1991	16	84239642	84239642	C	T	C	Y	intronic	KIAA0182	NA	NA
LU-1991	16	85117402	85117402	A	T	A	W	intergenic	NA	NA	NA
LU-1991	16	85169937	85169937	C	A	C	M	exonic	FOXL1	missense	NM_005250:p.A36D
LU-1991	17	620008	620008	C	A	C	M	intronic	GLOD4	NA	NA
LU-1991	17	3142559	3142559	G	T	G	K	exonic	OR3A1	missense	NM_002550:p.A23E
LU-1991	17	3339226	3339226	A	G	A	R	intronic	ASPA	NA	NA
LU-1991	17	5194455	5194455	G	T	G	K	intronic	RABEP1	NA	NA
LU-1991	17	7519192	7519192	T	G	T	K	exonic	TP53	missense	NM_001126117:p.T23P
LU-1991	17	10103215	10103215	G	T	G	K	intergenic	NA	NA	NA
LU-1991	17	10157324	10157324	C	A	C	M	exonic	MYH13	nonsense	NM_003802:p.E1353X
LU-1991	17	10256636	10256636	G	T	G	K	intronic	MYH8	NA	NA
LU-1991	17	16267804	16267804	G	C	G	S	exonic	TRPV2	missense	NM_016113:p.E308Q
LU-1991	17	16507163	16507163	G	A	G	R	intergenic	NA	NA	NA
LU-1991	17	17639993	17639993	G	T	G	K	exonic	RAI1	silent	NM_030665:p.R1002R
LU-1991	17	17963880	17963880	G	T	G	K	exonic	MYO15A	silent	NM_016239:p.A347A
LU-1991	17	21491672	21491672	G	T	G	K	intergenic	NA	NA	NA
LU-1991	17	23018978	23018978	A	G	A	R	intergenic	NA	NA	NA
LU-1991	17	24207561	24207561	C	A	C	M	intronic	ERAL1	NA	NA
LU-1991	17	30850124	30850124	C	T	C	Y	intergenic	NA	NA	NA
LU-1991	17	35285104	35285104	A	G	A	R	exonic	ZPBP2	silent	NM_198844:p.L238L
LU-1991	17	35435875	35435875	G	C	G	S	intronic	MED24	NA	NA
LU-1991	17	35437772	35437772	C	A	C	M	intronic	MED24	NA	NA
LU-1991	17	35603286	35603286	C	G	C	S	intronic	RAPGEFL1	NA	NA
LU-1991	17	36928085	36928085	C	G	C	S	intronic	KRT15	NA	NA
LU-1991	17	37379520	37379520	G	T	G	K	UTR3	CNP	NA	NA

LU-1991	17	37510482	37510486	AGACA	-	G	*-/AGACA	intronic	DHX58	NA	NA
LU-1991	17	38090868	38090868	G	T	G	K	exonic	CNTNAP1	nonsense	NM_003632:p.E207X
LU-1991	17	38384953	38384953	C	A	C	M	exonic	AARSD1	nonsense	NM_001136042:p.E96X
LU-1991	17	40830016	40830016	C	A	C	M	intronic	ARHGAP27	NA	NA
LU-1991	17	46101831	46101831	C	T	C	Y	exonic	ABCC3	silent	NM_003786:p.A728A
LU-1991	17	70754442	70754442	T	C	T	Y	exonic	GGA3	missense	NM_138619:p.E24G
LU-1991	18	324711	324711	C	A	C	M	intronic	COLEC12	NA	NA
LU-1991	18	570847	570847	G	A	G	R	exonic	CETN1	missense	NM_004066:p.D147N
LU-1991	18	6954803	6954803	C	G	C	S	splicing	LAMA1	NA	NA
LU-1991	18	12182459	12182459	T	G	T	K	intergenic	NA	NA	NA
LU-1991	18	21058618	21058618	G	T	G	K	exonic	ZNF521	missense	NM_015461:p.L1088M
LU-1991	18	21061233	21061233	G	T	G	K	exonic	ZNF521	missense	NM_015461:p.S216Y
LU-1991	18	31171252	31171252	A	G	A	R	exonic	ZNF24	missense	NM_006965:p.L350P
LU-1991	18	39873400	39873400	A	G	A	R	intergenic	NA	NA	NA
LU-1991	18	45583177	45583177	C	T	C	Y	exonic	ACAA2	missense	NM_006111:p.G21R
LU-1991	18	54986740	54986740	C	G	C	S	intergenic	NA	NA	NA
LU-1991	18	65953409	65953409	A	G	A	R	exonic	RTTN	missense	NM_173630:p.M959T
LU-2349	1	16807784	16807784	A	G	A	R	UTR5	NBPF1	NA	NA
LU-2349	1	60000900	60000900	G	C	G	S	UTR3	FGGY	NA	NA
LU-2349	1	141477865	141477865	G	A	G	R	intergenic	NA	NA	NA
LU-2349	1	147008447	147008447	T	G	T	K	intronic	NBPF16	NA	NA
LU-2349	1	158209534	158209534	G	A	G	R	intergenic	NA	NA	NA
LU-2349	1	175100160	175100160	G	C	G	S	exonic	ASTN1	missense	NM_004319:p.S1256R
LU-2349	1	205202461	205202461	G	T	G	K	exonic	FCAMR	silent	NM_001122979:p.T124T
LU-2349	1	226401251	226401251	G	T	G	K	exonic	GUK1	silent	NM_000858:p.L80L
LU-2349	1	236120053	236120053	G	T	G	K	exonic	ZP4	silent	NM_021186:p.L74L
LU-2349	1	238373050	238373050	G	C	G	S	intronic	FMN2	NA	NA
LU-2349	2	26308475	26308475	A	C	A	M	intronic	HADHA	NA	NA
LU-2349	2	33393721	33393721	A	G	A	R	exonic	LTBP1	missense	NM_206943:p.N1204S
LU-2349	2	81281679	81281679	G	A	G	R	intergenic	NA	NA	NA
LU-2349	2	90961463	90961463	A	T	A	W	intergenic	NA	NA	NA
LU-2349	2	90961476	90961476	T	A	T	W	intergenic	NA	NA	NA
LU-2349	2	90968499	90968499	C	T	C	Y	intergenic	NA	NA	NA
LU-2349	2	161845036	161845036	T	C	T	Y	intergenic	NA	NA	NA
LU-2349	2	165860691	165860691	A	T	A	W	exonic	SCN2A	nonsense	NM_021007:p.K38X
LU-2349	2	170782102	170782102	G	T	G	K	exonic	MYO3B	missense	NM_138995:p.R185L
LU-2349	2	201711291	201711291	C	G	C	S	intronic	CFLAR	NA	NA
LU-2349	2	219597054	219597054	G	T	G	K	exonic	CCDC108	missense	NM_194302:p.T841N
LU-2349	3	42274716	42274716	G	C	G	S	exonic	CCK	missense	NM_000729:p.R76G
LU-2349	3	52521879	52521879	T	G	T	K	intronic	STAB1	NA	NA
LU-2349	3	126074970	126074970	C	A	C	M	intronic	ITGB5	NA	NA
LU-2349	3	126753667	126753667	G	A	G	R	intronic	OSBPL11	NA	NA
LU-2349	3	132356651	132356651	G	T	G	K	exonic	NEK11	missense	NM_001146003:p.A320S
LU-2349	3	135567919	135567919	C	T	C	Y	exonic	AMOTL2	missense	NM_016201:p.S361N
LU-2349	3	143986285	143986285	G	T	G	K	exonic	TRPC1	missense	NM_003304:p.G303V
LU-2349	3	187962002	187962002	T	C	T	Y	intergenic	NA	NA	NA
LU-2349	4	117062296	117062296	G	T	G	K	intergenic	NA	NA	NA
LU-2349	4	152288878	152288878	C	G	C	S	intronic	SH3D19	NA	NA
LU-2349	5	107939243	107939243	C	G	C	S	intergenic	NA	NA	NA
LU-2349	5	126506393	126506393	C	G	C	S	intergenic	NA	NA	NA
LU-2349	5	170327904	170327904	A	T	A	W	exonic	RANBP17	missense	NM_022897:p.E543V
LU-2349	6	56404818	56404818	C	A	C	M	intergenic	NA	NA	NA
LU-2349	6	121618981	121618981	T	C	T	Y	exonic	C6orf170	missense	NM_152730:p.Q628R
LU-2349	7	4763228	4763228	G	C	G	S	exonic	FOXP1	silent	NM_001037165:p.G376G
LU-2349	7	54787609	54787609	T	C	T	Y	splicing	SEC61G	NA	NA
LU-2349	7	56325937	56325937	C	A	C	M	intergenic	NA	NA	NA
LU-2349	7	81552054	81552054	C	A	C	M	exonic	CACNA2D1	missense	NM_000722:p.G209C
LU-2349	7	97200001	97200001	G	C	G	S	intronic	TAC1	NA	NA
LU-2349	7	103079318	103079318	C	A	C	M	intronic	RELN	NA	NA
LU-2349	7	113305353	113305353	T	A	T	W	exonic	PPP1R3A	silent	NM_002711:p.P1010P
LU-2349	7	122126241	122126241	C	A	C	M	intronic	CADPS2	NA	NA
LU-2349	7	124298227	124298227	C	T	C	Y	exonic	POT1	missense	NM_015450:p.D77N
LU-2349	7	128196486	128196486	A	C	A	M	UTR3	CALU	NA	NA
LU-2349	7	128202403	128202403	G	T	G	K	exonic	OPN15W	missense	NM_001708:p.R132S
LU-2349	7	128280272	128280272	G	-	A	*-/G	exonic	FLNC	FS_del	NM_001458:c.6159_6159delG
LU-2349	7	135597987	135597987	T	-	G	*-/T	intergenic	NA	NA	NA
LU-2349	7	135597988	135597988	T	A	T	W	intergenic	NA	NA	NA
LU-2349	8	47677496	47677496	A	T	A	W	intergenic	NA	NA	NA
LU-2349	8	81375748	81375748	C	G	C	S	intergenic	NA	NA	NA
LU-2349	9	6523330	6523330	C	T	C	Y	intronic	GLDC	NA	NA
LU-2349	9	67907281	67907281	A	G	A	R	intergenic	NA	NA	NA
LU-2349	9	67919685	67919685	A	G	A	R	ncRNA	LOC642236	NA	NA
LU-2349	9	72566476	72566476	A	T	A	W	intronic	TRPM3	NA	NA
LU-2349	9	85883590	85883590	T	C	T	Y	intergenic	NA	NA	NA
LU-2349	9	122676630	122676630	C	G	C	S	intronic	PHF19	NA	NA
LU-2349	9	127065809	127065809	G	C	G	S	UTR5	GAPVD1	NA	NA
LU-2349	9	130060622	130060622	T	G	T	K	exonic	GOLGA2	missense	NM_004486:p.E714A
LU-2349	10	38971032	38971032	G	T	G	K	intergenic	NA	NA	NA
LU-2349	10	69618650	69618650	C	T	C	Y	intronic	MYPN	NA	NA

LU-2349	10	115364589	115364589	T	A	T	W	splicing	NRAP	missense	NM_006175:p.D1027V
LU-2349	10	127570728	127570728	G	A	G	R	intergenic	NA	NA	NA
LU-2349	10	127833839	127833839	C	G	C	S	exonic	ADAM12	missense	NM_021641:p.E96Q
LU-2349	11	1575958	1575958	G	T	G	K	exonic	KRTAP5-2	silent	NM_001004325:p.S33S
LU-2349	11	5227135	5227135	G	C	G	S	intronic	HBG1	NA	NA
LU-2349	11	65947914	65947914	T	A	T	W	exonic	NPAS4	nonsense	NM_178864:p.L326X
LU-2349	11	100504175	100504175	C	T	C	Y	exonic	PGR	silent	NM_000926:p.R279R
LU-2349	11	100585423	100585423	G	T	G	K	intergenic	NA	NA	NA
LU-2349	12	5024095	5024095	G	C	G	S	exonic	KCNA5	missense	NM_002234:p.G174A
LU-2349	12	7758995	7758995	-	TGAA	G	*/+TGAA	intronic	DPPA3	NA	NA
LU-2349	12	20681330	20681330	T	A	T	W	exonic	PDE3A	silent	NM_000921:p.L677L
LU-2349	12	27768287	27768287	G	A	G	R	exonic	MRPS35	silent	NM_001190864:p.E141E
LU-2349	12	42250018	42250018	G	T	G	K	intergenic	NA	NA	NA
LU-2349	12	55261887	55261887	G	T	G	K	exonic	RBMS2	missense	NM_002898:p.V246F
LU-2349	12	77122921	77122921	C	A	C	M	exonic	NAV3	missense	NM_014903:p.L2282M
LU-2349	12	129214778	129214778	C	A	C	M	exonic	FZD10	silent	NM_007197:p.L446L
LU-2349	13	19961478	19961478	C	A	C	M	intronic	CRYL1	NA	NA
LU-2349	13	24174260	24174260	C	A	C	M	intronic	ATP12A	NA	NA
LU-2349	13	90722219	90722219	G	T	G	K	intergenic	NA	NA	NA
LU-2349	14	38755311	38755311	G	T	G	K	intergenic	NA	NA	NA
LU-2349	14	43080341	43080341	G	T	G	K	intergenic	NA	NA	NA
LU-2349	14	44400778	44400778	T	A	T	W	intergenic	NA	NA	NA
LU-2349	14	46190581	46190581	C	A	C	M	exonic	RPL10L	missense	NM_080746:p.G37C
LU-2349	14	50546922	50546922	C	G	C	S	exonic	TRIM9	missense	NM_015163:p.R361P
LU-2349	14	65549475	65549475	A	G	A	R	intergenic	NA	NA	NA
LU-2349	14	92552954	92552954	C	-	-	*/-C	intronic	ITPK1	NA	NA
LU-2349	14	92552960	92552960	T	A	T	W	intronic	ITPK1	NA	NA
LU-2349	14	95227309	95227309	C	A	C	M	intronic	TCL1B	NA	NA
LU-2349	16	1246711	1246711	G	T	G	K	intronic	TPSD1	NA	NA
LU-2349	16	1246712	1246712	G	T	G	K	intronic	TPSD1	NA	NA
LU-2349	16	33864695	33864695	T	C	T	Y	intergenic	NA	NA	NA
LU-2349	16	33866401	33866401	C	A	C	M	intergenic	NA	NA	NA
LU-2349	16	56540768	56540768	C	A	C	M	exonic	CNGB1	nonsense	NM_001297:p.E371X
LU-2349	17	165375	165375	A	C	A	M	intronic	RPH3AL	NA	NA
LU-2349	17	165643	165643	C	A	C	M	intronic	RPH3AL	NA	NA
LU-2349	17	37030722	37030722	C	T	C	Y	intronic	KRT17	NA	NA
LU-2349	17	40202576	40202576	C	G	C	S	intronic	ADAM11	NA	NA
LU-2349	17	74984583	74984583	G	C	G	S	UTR5	RBFOX3	NA	NA
LU-2349	18	59317262	59317262	A	G	A	R	intronic	SERPIN5	NA	NA
LU-2349	19	17337411	17337411	C	A	C	M	exonic	PLVAP	missense	NM_031310:p.R288L
LU-2349	19	23807094	23807094	A	G	A	R	intergenic	NA	NA	NA
LU-2349	19	56421026	56421026	A	G	A	R	exonic	CD33	missense	NM_001082618:p.T65A
LU-2349	20	801637	801637	G	A	G	R	exonic	ANGPT4	missense	NM_015985:p.A493V
LU-2349	20	2544813	2544813	A	C	A	M	exonic	TMC2	missense	NM_080751:p.N635H
LU-2349	20	6707411	6707411	G	T	G	K	exonic	BMP2	missense	NM_001200:p.R289L
LU-2349	20	22510581	22510581	G	C	G	S	exonic	FOXA2	silent	NM_153675:p.V427V
LU-2349	20	28243553	28243553	G	A	G	R	ncRNA	FRG1B	NA	NA
LU-2349	20	28249877	28249877	A	T	A	W	intergenic	NA	NA	NA
LU-2349	20	44070900	44070900	G	T	G	K	upstream	MMP9	NA	NA
LU-2349	20	62190453	62190453	A	T	A	W	UTR5	OPRL1	NA	NA
LU-2349	21	10153453	10153453	C	G	C	S	intergenic	NA	NA	NA
LU-2349	22	35908638	35908638	T	A	T	W	exonic	C1QTNF6	missense	NM_031910:p.S125C
LU-2349	X	17729704	17729704	G	A	G	R	exonic	RAI2	silent	NM_001172739:p.T116T
LU-2349	X	26068000	26068000	C	A	C	M	exonic	MAGEB18	missense	NM_173699:p.A326D
LU-2349	X	53287799	53287799	G	T	G	K	exonic	IQSEC2	missense	NM_015075:p.H764Q
LU-2349	X	55531590	55531590	G	T	G	K	exonic	USP51	missense	NM_201286:p.L170I
LU-2349	X	101045835	101045835	C	A	C	M	intronic	ZMAT1	NA	NA
LU-2349	X	150874627	150874627	A	C	A	M	exonic	GABRE	missense	NM_004961:p.Y336D
Lu-2375	1	94259875	94259875	C	A	C	M	intronic	ABCA4	NA	NA
Lu-2375	1	141478735	141478735	T	G	T	K	intergenic	NA	NA	NA
Lu-2375	1	141801674	141801674	C	G	C	S	intergenic	NA	NA	NA
Lu-2375	1	141801680	141801680	G	C	G	S	intergenic	NA	NA	NA
Lu-2375	1	195842932	195842932	A	T	A	W	intronic	DENND1B	NA	NA
Lu-2375	3	15895226	15895226	T	A	T	W	intergenic	NA	NA	NA
Lu-2375	4	191053979	191053979	G	A	G	R	intergenic	NA	NA	NA
Lu-2375	4	191131894	191131894	G	A	G	R	intergenic	NA	NA	NA
Lu-2375	9	67908293	67908293	A	G	A	R	intergenic	NA	NA	NA
Lu-2375	9	67908304	67908304	G	A	G	R	intergenic	NA	NA	NA
Lu-2375	9	67909472	67909472	T	G	T	K	intergenic	NA	NA	NA
Lu-2375	9	67917825	67917825	G	C	G	S	ncRNA	LOC642236	NA	NA
Lu-2375	10	41698306	41698306	C	G	C	S	intergenic	NA	NA	NA
Lu-2375	11	408922	408922	C	T	C	Y	exonic	ANO9	missense	NM_001012302:p.G668R
Lu-2375	12	118117202	118117202	G	A	G	R	downstream	HSPB8	NA	NA
Lu-2375	15	39138062	39138062	T	C	T	Y	intronic	INO80	NA	NA
Lu-2375	20	28227698	28227698	G	T	G	K	ncRNA	FRG1B	NA	NA
Lu-2375	20	28248399	28248399	G	C	G	S	downstream	FRG1B	NA	NA
Lu-2375	20	28267271	28267271	G	A	G	R	intergenic	NA	NA	NA
Lu-2375	21	9819568	9819568	G	T	G	K	intergenic	NA	NA	NA
Lu-2375	Y	10594536	10594536	G	C	G	S	intergenic	NA	NA	NA

Lu-2375	Y	11771989	11771989	G	A	G	R	intergenic	NA	NA	NA
Lu-2375	Y	11784316	11784316	T	C	T	Y	intergenic	NA	NA	NA
Lu-2375	Y	11784322	11784322	C	A	C	M	intergenic	NA	NA	NA
Lu-2375	Y	11948915	11948915	G	A	G	R	intergenic	NA	NA	NA
Lu-2375	Y	57389767	57389767	T	C	T	Y	intergenic	NA	NA	NA
Lu-2375	M	10947	10947	-	C	A	*/+C	intergenic	NA	NA	NA
Lu-597	1	5655304	5655304	G	A	G	R	intergenic	NA	NA	NA
Lu-597	1	141480098	141480098	C	G	C	S	intergenic	NA	NA	NA
Lu-597	3	47136892	47136895	CTCT	-	A	*/-CTCT	exonic	SETD2	FS_del	NM_014159:c.4235_4238del
Lu-597	4	48817765	48817765	A	G	A	R	intergenic	NA	NA	NA
Lu-597	6	43856533	43856533	G	A	G	R	exonic	VEGFA	missense	NM_001171623:p.R170H
Lu-597	6	44452788	44452788	G	A	G	R	UTR3	SPATS1	NA	NA
Lu-597	9	67903406	67903406	G	A	G	R	intergenic	NA	NA	NA
Lu-597	9	67906873	67906873	T	C	T	Y	intergenic	NA	NA	NA
Lu-597	9	67911247	67911247	G	A	G	R	intergenic	NA	NA	NA
Lu-597	9	67911250	67911250	C	G	C	S	intergenic	NA	NA	NA
Lu-597	9	67911260	67911260	A	G	A	R	intergenic	NA	NA	NA
Lu-597	9	67916157	67916157	T	C	T	Y	intergenic	NA	NA	NA
Lu-597	10	41698597	41698597	A	T	A	W	intergenic	NA	NA	NA
Lu-597	12	121946481	121946481	G	C	G	S	exonic	VPS37B	missense	NM_024667:p.L28V
Lu-597	14	76171582	76171582	A	C	A	M	intergenic	NA	NA	NA
Lu-597	14	76171583	76171583	G	A	G	R	intergenic	NA	NA	NA
Lu-597	16	70650503	70650503	T	-	C	*/-T	intronic	HP	NA	NA
Lu-597	17	21492456	21492456	C	T	C	Y	intergenic	NA	NA	NA
Lu-597	20	28267202	28267202	G	A	G	R	intergenic	NA	NA	NA
Lu-597	20	33776439	33776439	A	T	A	W	exonic	RBM39	missense	NM_184234:p.C157S
Lu-597	21	10093450	10093450	C	A	C	M	intronic	BAGE2	NA	NA
Lu-597	Y	11930032	11930032	C	T	C	Y	intergenic	NA	NA	NA
Lu-597	Y	57439304	57439304	C	A	C	M	intergenic	NA	NA	NA

Supplementary Table 5. Somatic SNVs validated by the Sanger resequencing

sample	chr	start	end	ref	var	geno_N	geno_T	region	gene	function	seq_change
7285	1	184591427	184591427	G	C	G	S	exonic	TPR	nonsense	NM_003292:p.S662X
7285	1	213914947	213914947	C	A	C	M	exonic	USH2A	missense	NM_206933:p.S4310I
7285	1	246752295	246752295	C	A	C	M	exonic	OR2G6	nonsense	NM_001013355:p.S242X
7285	3	35745939	35745939	C	T	C	Y	exonic	ARPP21	nonsense	NM_016300:p.Q456X
7285	3	44907098	44907098	G	C	G	S	splicing	TGM4	NA	NA
7285	3	52833007	52833007	G	-	C	*/-G	exonic	ITIH4	FS_del	NM_001166449:p.R409fs
7285	3	148603203	148603203	A	T	A	W	splicing	ZIC4	NA	NA
7285	4	102166197	102166197	C	A	C	M	exonic	PPP3CA	nonsense	NM_001130692:p.E420X
7285	6	69760513	69760513	C	A	C	M	exonic	BAI3	missense	NM_001704:p.L623M
7285	7	81552033	81552033	G	A	G	R	exonic	CACNA2D1	nonsense	NM_000722:p.R216X
7285	7	120752769	120752769	T	C	T	Y	splicing	WNT16	missense	NM_016087:p.W22R
7285	7	128274177	128274177	G	A	G	R	exonic	FLNC	missense	NM_001127487:p.G1424R
7285	8	105525652	105525652	C	A	C	M	splicing	DPYS	missense	NM_001385:p.G265W
7285	8	113336833	113336833	C	T	C	Y	splicing	CSMD3	NA	NA
7285	8	113747682	113747682	C	G	C	S	splicing	CSMD3	missense	NM_052900:p.R835T
7285	9	27195004	27195025	ATATT	-	C	*/-	exonic	TEK	FS_del	NM_000459:p.769_776del
				GCAAT					ATATTG		
				TGAAG					CAATTG		
				AGGGC					AAGAGG		
				AA					GCAA		
7285	10	68196044	68196044	G	T	G	K	exonic	CTNNA3	missense	NM_001127384:p.T422N
7285	10	72170810	72170810	G	T	G	K	exonic	ADAMTS14	nonsense	NM_080722:p.E604X
7285	10	124047284	124047286	TGA	-	G	*/-TGA	exonic	BTBD16	nonFS_del	NM_144587:p.201_202del
7285	11	20472303	20472303	G	-	C	*/-G	exonic	PRMT3	FS_del	NM_001145166:p.T409fs
7285	12	48787646	48787646	T	A	T	W	exonic	GPD1	nonsense	NM_005276:p.C214X
7285	12	94797563	94797563	G	A	G	R	exonic	CCDC38	nonsense	NM_182496:p.Q378X
7285	13	77090195	77090195	C	T	C	Y	splicing	SCEL	nonsense	NM_003843:p.R523X
7285	14	93664020	93664020	C	-	G	*/-C	exonic	IFI27L2	FS_del	NM_032036:p.A88fs
7285	15	26129882	26129882	T	A	T	W	exonic	HERC2	missense	NM_004667:p.Q2310H
7285	15	27154497	27154497	G	A	G	R	splicing	APBA2	NA	NA
7285	15	90774346	90774346	G	T	G	K	splicing	ST8SIA2	NA	NA
7285	16	3004012	3004012	C	A	C	M	exonic	CLDN9	nonsense	NM_020982:p.Y216X
7285	16	54994435	54994435	T	A	T	W	exonic	AMFR	nonsense	NM_001144:p.K313X
7285	17	7520443	7520443	A	-	G	*/-A	exonic	TP53	FS_del	NM_001126113:p.L26fs
7285	17	8107152	8107152	G	T	G	K	splicing	PFAS	missense	NM_012393:p.V471L
7285	20	13715997	13715997	A	T	A	W	splicing	C20orf7	nonsense	NM_024120:p.R88X
7285	22	49411471	49411471	A	-	G	*/-A	exonic	ARSA	FS_del	NM_001085427:p.F319fs
7285	X	118855966	118855966	C	A	C	M	exonic	UPF3B	nonsense	NM_023010:p.E349X
7313	1	70224525	70224525	T	A	T	W	exonic	LRRC7	missense	NM_020794:p.L229I
7313	1	195288387	195288387	C	G	C	S	splicing	F13B	missense	NM_001994:p.E519Q
7313	2	141468136	141468136	C	A	C	M	exonic	LRP1B	nonsense	NM_018557:p.G848X
7313	2	185509270	185509270	G	T	G	K	exonic	ZNF804A	missense	NM_194250:p.S301I
7313	3	86015129	86015129	A	T	A	W	splicing	CADM2	NA	NA
7313	3	109958594	109958594	A	G	A	R	splicing	RETNLB	NA	NA
7313	4	123328052	123328052	G	T	G	K	exonic	KIAA1109	nonsense	NM_015312:p.E188X
7313	4	155726590	155726590	C	A	C	M	exonic	FGA	nonsense	NM_000508:p.E481X
7313	5	35809811	35809811	G	T	G	K	exonic	SPEF2	nonsense	NM_024867:p.E1337X
7313	5	112427765	112427765	T	C	T	Y	splicing	MCC	NA	NA
7313	5	131979679	131979679	-	T	A	*/+T	exonic	RAD50	FS_ins	NM_005732:p.H1041fs
7313	6	24594282	24594282	C	T	C	Y	splicing	GPLD1	silent	NM_001503:p.E51E
7313	6	70120888	70120888	C	A	C	M	exonic	BAI3	missense	NM_001704:p.P1168T
7313	6	152782416	152782416	A	T	A	W	exonic	SYNE1	missense	NM_182961:p.V1801E
7313	7	63805342	63805342	G	T	G	K	exonic	ZNF107	nonsense	NM_016220:p.E409X
7313	7	111883293	111883293	G	T	G	K	splicing	IFRD1	missense	NM_001550:p.G67V
7313	7	142170796	142170796	T	C	T	Y	splicing	ENSG000002	missense	ENST00000311737:p.C68R
7313	8	8271840	8271840	C	-	A	*/-C	exonic	SGK223	FS_del	NM_001080826:p.V497fs
7313	8	16022442	16022442	C	A	C	M	exonic	MSR1	nonsense	NM_138715:p.E360X
7313	8	68340991	68340991	C	A	C	M	exonic	ARFGEF1	nonsense	NM_006421:p.E643X
7313	8	93068375	93068375	C	A	C	M	splicing	RUNX1T1	silent	NM_001198679:p.G390G
7313	11	393681	393681	-	G	C	*/+G	exonic	PKP3	FS_ins	NM_007183:p.R663fs
7313	11	129307205	129307205	A	T	A	W	splicing	PRDM10	NA	NA
7313	12	37984960	37984960	C	A	C	M	exonic	KIF21A	missense	NM_017641:p.C1484F
7313	12	54149865	54149865	C	A	C	M	exonic	OR6C70	nonsense	NM_001005499:p.E109X
7313	12	61240537	61240537	G	T	G	K	splicing	MON2	NA	NA
7313	14	20094643	20094643	A	T	A	W	exonic	RNASE9	nonsense	NM_001110358:p.C147X
7313	16	5065388	5065388	A	T	A	W	splicing	ALG1	NA	NA
7313	16	49731266	49731266	C	A	C	M	exonic	SALL1	nonsense	NM_002968:p.G790X
7313	17	77420125	77420125	G	C	G	S	exonic	ARHGDI1A	missense	NM_004309:p.I177M
7313	18	62323185	62323185	G	T	G	K	exonic	CDH19	nonsense	NM_021153:p.Y721X
7313	19	56072036	56072036	T	A	T	W	exonic	KLK2	nonsense	NM_005551:p.L197X
7313	22	45174373	45174373	C	A	C	M	exonic	CELSR1	nonsense	NM_014246:p.E1773X
7313	X	29883324	29883324	G	A	G	R	exonic	IL1RAPL1	missense	NM_014271:p.M519I
7945	1	183031450	183031450	C	T	C	Y	exonic	FAM129A	missense	NM_052966:p.E691K
7945	1	218893175	218893175	G	-	T	*/-G	exonic	MARK1	FS_del	NM_018650:p.G616fs
7945	1	245761921	245761921	G	C	G	S	exonic	OR2C3	missense	NM_198074:p.N172K
7996	1	214324762	214324762	G	T	G	K	exonic	USH2A	missense	NM_206933:p.P1690T

7996	14	71274712	71274712	A	T	A	W	splicing	SIPA1L1	missense	NM_015556:p.S1730C
7996	15	66774636	66774636	C	A	C	M	exonic	CORO2B	nonsense	NM_001190457:p.S102X
7996	17	7519188	7519188	C	G	C	S	exonic	TP53	missense	NM_001126117:p.R24P
7996	X	29324443	29324443	T	A	T	W	exonic	IL1RAPL1	missense	NM_014271:p.F170L
12586	1	68677832	68677832	C	T	C	Y	splicing	RPE65	missense	NM_000329:p.S242N
12586	1	70266524	70266524	-	T	G	*/+T	exonic	LRRC7	FS_ins	NM_020794:p.G588fs
12586	1	70291385	70291385	G	A	G	R	exonic	LRRC7	missense	NM_020794:p.R1362Q
12586	1	174792283	174792283	T	A	T	W	exonic	PAPPA2	missense	NM_021936:p.F68I
12586	2	29308733	29308733	G	A	G	R	exonic	ALK	missense	NM_004304:p.P858L
12586	2	167810391	167810391	G	A	G	R	exonic	XIRP2	missense	NM_152381:p.G1415S
12586	3	46282127	46282127	G	A	G	R	exonic	CCR3	nonsense	NM_001164680:p.W176X
12586	3	130470141	130470141	G	T	G	K	exonic	COPG	nonsense	NM_016128:p.E588X
12586	3	135042829	135042829	G	C	G	S	exonic	RAB6B	nonsense	NM_016577:p.Y93X
12586	4	126589539	126589539	G	A	G	R	exonic	FAT4	missense	NM_024582:p.E2640K
12586	5	137616963	137616963	G	A	G	R	splicing	GFRA3	missense	NM_001496:p.T342M
12586	5	140692131	140692131	G	-	C	*/-G	exonic	PCDHGA1	FS_del	NM_031993:p.A566fs
12586	6	70105948	70105948	C	G	C	S	exonic	BAI3	missense	NM_001704:p.A1097G
12586	6	117757260	117757260	C	A	C	M	exonic	ROS1	missense	NM_002944:p.G1764V
12586	6	117757261	117757261	C	A	C	M	exonic	ROS1	missense	NM_002944:p.G1764W
12586	7	148482359	148482359	C	-	T	*/-C	exonic	ZNF398	FS_del	NM_170686:p.I138fs
12586	7	150341383	150341383	G	T	G	K	exonic	NOS3	nonsense	NM_000603:p.E1080X
12586	8	41673173	41673173	G	T	G	K	exonic	ANK1	missense	NM_000037:p.T942K
12586	8	113346981	113346981	C	A	C	M	exonic	CSMD3	missense	NM_198123:p.D3175Y
12586	9	102086427	102086427	C	T	C	Y	exonic	INVS	nonsense	NM_183245:p.R597X
12586	11	109630045	109630045	C	A	C	M	splicing	RDX	NA	NA
12586	13	47461017	47461017	C	T	C	Y	splicing	SUCLA2	NA	NA
12586	14	22935332	22935332	C	A	C	M	splicing	MYH6	NA	NA
12586	16	83658349	83658349	G	-	T	*/-G	exonic	KIAA0513	FS_del	NM_014732:p.M57fs
12804	7	6047147	6047147	G	A	G	R	exonic	EIF2AK1	nonsense	NM_014413:p.Q341X
12804	X	9995365	9995365	C	T	C	Y	exonic	WWC3	nonsense	NM_015691:p.R19X
12820	1	103161526	103161526	G	T	G	K	exonic	COL11A1	missense	NM_001854:p.P1203Q
12820	2	43818984	43818984	A	T	A	W	splicing	PLEKHH2	missense	NM_172069:p.T982S
12820	2	167814324	167814324	G	T	G	K	exonic	XIRP2	missense	NM_152381:p.D2726Y
12820	3	11325456	11325456	A	T	A	W	splicing	ATG7	NA	NA
12820	3	120106185	120106185	C	T	C	Y	splicing	IGSF11	missense	NM_152538:p.R284K
12820	3	121872071	121872071	T	A	T	W	splicing	HGD	NA	NA
12820	3	195888988	195888988	C	-	G	*/-C	exonic	FAM43A	FS_del	NM_153690:p.S48fs
12820	5	36145839	36145839	T	-	C	*/-T	exonic	LMBRD2	FS_del	NM_001007527:p.R586fs
12820	5	82870925	82870925	C	A	C	M	exonic	VCAN	nonsense	NM_001164097:p.S1129X
12820	5	140533977	140533977	T	A	T	W	exonic	PCDHB7	missense	NM_018940:p.F459L
12820	5	156525535	156525535	C	T	C	Y	exonic	FAM71B	missense	NM_130899:p.V75I
12820	6	29249672	29249672	C	A	C	M	exonic	OR2J2	nonsense	NM_030905:p.S94X
12820	6	152664774	152664774	C	A	C	M	exonic	SYNE1	nonsense	NM_182961:p.E5822X
12820	7	34854801	34854801	G	T	G	K	splicing	NPSR1	NA	NA
12820	7	38223430	38223430	C	T	C	Y	splicing	STARD3NL	silent	NM_032016:p.N184N
12820	7	81169946	81169946	C	G	C	S	exonic	HGF	missense	NM_000601:p.V692L
12820	7	100017608	100017608	G	A	G	R	exonic	LRCH4	nonsense	NM_002319:p.R162X
12820	8	113720196	113720196	G	T	G	K	exonic	CSMD3	missense	NM_198123:p.T1144K
12820	8	113737583	113737583	T	C	T	Y	exonic	CSMD3	missense	NM_198123:p.N994D
12820	9	8508246	8508246	C	A	C	M	exonic	PTPRD	missense	NM_002839:p.G382V
12820	9	130865644	130865644	G	C	G	S	splicing	FAM73B	NA	NA
12820	9	133095947	133095947	G	T	G	K	exonic	NUP214	nonsense	NM_005085:p.G2062X
12820	12	77086688	77086688	G	C	G	S	exonic	NAV3	missense	NM_014903:p.R1631T
12820	14	59143754	59143754	A	T	A	W	splicing	RTN1	NA	NA
12820	15	71334094	71334094	C	T	C	Y	exonic	NEO1	nonsense	NM_002499:p.Q655X
12820	16	82741448	82741448	G	T	G	K	splicing	LRRC50	missense	NM_178452:p.G118C
12820	17	7519119	7519119	T	C	T	Y	exonic	TP53	missense	NM_001126117:p.H47R
12820	18	21060321	21060321	A	C	A	M	exonic	ZNF521	missense	NM_015461:p.M520R
12820	18	28514368	28514368	G	T	G	K	splicing	KLHL14	NA	NA
12820	18	38808093	38808093	G	A	G	R	exonic	RIT2	nonsense	NM_002930:p.Q60X
12820	X	65741067	65741067	G	C	G	S	exonic	EDA2R	nonsense	NM_021783:p.Y91X
12820	X	85954789	85954789	G	T	G	K	splicing	DACH2	missense	NM_001139515:p.G297C
12924	1	103222316	103222316	C	A	C	M	exonic	COL11A1	missense	NM_001854:p.G841V
12924	1	107669038	107669038	C	G	C	S	exonic	NTNG1	nonsense	NM_001113228:p.Y286X
12924	1	202663963	202663963	C	A	C	M	exonic	PIK3C2B	missense	NM_002646:p.L1469F
12924	1	218901829	218901829	A	T	A	W	exonic	MARK1	nonsense	NM_018650:p.K696X
12924	1	238559029	238559029	G	T	G	K	exonic	FMN2	nonsense	NM_020066:p.E1416X
12924	1	245721475	245721475	C	A	C	M	exonic	OR2W5	nonsense	NM_001004698:p.C141X
12924	2	53978955	53978955	C	A	C	M	exonic	PSME4	nonsense	NM_014614:p.E1155X
12924	2	167812135	167812135	C	A	C	M	exonic	XIRP2	missense	NM_152381:p.T1996N
12924	2	182720125	182720125	C	A	C	M	splicing	PDE1A	NA	NA
12924	2	185511661	185511661	T	C	T	Y	exonic	ZNF804A	missense	NM_194250:p.I1098T
12924	2	216001148	216001148	C	G	C	S	splicing	FN1	missense	NM_054034:p.G282R
12924	3	16615067	16615067	C	A	C	M	exonic	DAZL	nonsense	NM_001190811:p.E36X
12924	3	47887307	47887307	C	G	C	S	splicing	MAP4	silent	NM_002375:p.R953R
12924	3	122898003	122898003	T	A	T	W	exonic	GOLGB1	nonsense	NM_004487:p.K1348X
12924	4	40046028	40046028	C	-	T	*/-C	exonic	CHRNA9	FS_del	NM_017581:c.738_738delC
12924	4	55665621	55665621	G	A	G	R	exonic	KDR	nonsense	NM_002253:p.Q645X
12924	4	126592756	126592756	G	T	G	K	exonic	FAT4	missense	NM_024582:p.S3712I

12924	4	155939392	155939392	C	T	C	Y	exonic	RBM46	nonsense	NM_144979:p.Q210X
12924	4	177286942	177286942	C	G	C	S	exonic	WDR17	missense	NM_181265:p.L284V
12924	5	67625011	67625021	CAGTA	-	T	*/-	exonic	PIK3R1	FS_del	NM_181504:c.433_443del
				TAATC			CAGTAT				
				C			AATCC				
12924	5	152853684	152853684	G	C	G	S	exonic	GRIA1	missense	NM_000827:p.G29A
12924	5	168032882	168032882	C	A	C	M	exonic	SLIT3	missense	NM_003062:p.S1240I
12924	5	168109208	168109208	A	C	A	M	exonic	SLIT3	missense	NM_003062:p.S662A
12924	6	42345060	42345060	C	A	C	M	exonic	TRERF1	nonsense	NM_033502:p.G83X
12924	6	144851501	144851501	G	-	A	*/-G	splicing	UTRN	NA	NA
12924	6	151936038	151936038	G	T	G	K	exonic	C6orf97	nonsense	NM_025059:p.E271X
12924	7	36638166	36638166	C	T	C	Y	splicing	AOAH	NA	NA
12924	10	53128238	53128238	G	A	G	R	exonic	CSTF2T	nonsense	NM_015235:p.Q360X
12924	10	67418483	67418483	A	T	A	W	exonic	CTNNA3	missense	NM_013266:p.D746E
12924	11	26676542	26676542	G	C	G	S	exonic	SLC5A12	nonsense	NM_178498:p.S313X
12924	11	56857011	56857011	C	A	C	M	exonic	SSRP1	nonsense	NM_003146:p.E179X
12924	11	88222759	88222759	G	C	G	S	exonic	GRM5	missense	NM_000842:p.R292G
12924	11	133618399	133618399	G	C	G	S	splicing	VPS26B	NA	NA
12924	12	77036028	77036028	C	T	C	Y	exonic	NAV3	missense	NM_014903:p.H954Y
12924	12	77036052	77036052	A	T	A	W	exonic	NAV3	nonsense	NM_014903:p.K962X
12924	12	87084352	87084352	G	A	G	R	exonic	TMTC3	nonsense	NM_181783:p.W304X
12924	13	38349381	38349381	G	T	G	K	splicing	FREM2	NA	NA
12924	15	63411498	63411498	C	A	C	M	splicing	IGDCC3	NA	NA
12924	17	7520196	7520196	G	-	C	*/-G	exonic	TP53	FS_del	NM_001126114:c.216_216delC
12924	17	10341200	10341200	C	A	C	M	exonic	MYH1	nonsense	NM_005963:p.G1523X
12924	17	10370759	10370759	G	A	G	R	exonic	MYH2	nonsense	NM_017534:p.Q1357X
12924	17	15905731	15905731	G	A	G	R	exonic	NCOR1	nonsense	NM_006311:p.Q1864X
12924	19	6630508	6630508	C	A	C	M	splicing	C3	NA	NA
12924	19	10471422	10471422	G	C	G	S	exonic	KEAP1	missense	NM_012289:p.H96Q
12924	19	61394027	61394027	T	A	T	W	exonic	ZSCAN5B	nonsense	NM_001080456:p.K244X
12924	20	34493939	34493939	C	-	G	*/-C	exonic	DLGAP4	FS_del	NM_014902:c.405_405delC
12924	21	27224160	27224160	G	T	G	K	exonic	ADAMT55	nonsense	NM_007038:p.S714X
12924	21	31041262	31041262	C	A	C	M	exonic	KRTAP21-2	nonsense	NM_181617:p.G44X
12924	X	41087939	41087939	G	T	G	K	exonic	DDX3X	nonsense	NM_001193416:p.G229X
12924	X	70389164	70389164	C	A	C	M	splicing	ZMYM3	nonsense	NM_001171163:p.G223X
12924	X	153388977	153388977	C	A	C	M	exonic	FAM3A	nonsense	NM_001171133:p.E104X
13280	1	175006868	175006868	G	-	T	*/-G	exonic	PAPPA2	FS_del	NM_020318:c.4644_4644delG
13280	2	29996425	29996425	C	A	C	M	exonic	ALK	missense	NM_004304:p.G202V
13280	2	98821013	98821013	C	G	C	S	splicing	C2orf55	NA	NA
13280	3	128823195	128823195	G	T	G	K	splicing	MCM2	NA	NA
13280	5	178291635	178291635	G	T	G	K	exonic	ZFP2	nonsense	NM_030613:p.E239X
13280	6	64048515	64048515	G	-	T	*/-G	exonic	LGSN	FS_del	NM_016571:c.900_900delC
13280	8	89156080	89156080	C	T	C	Y	exonic	MMP16	nonsense	NM_005941:p.W364X
13280	10	64694428	64694428	G	A	G	R	exonic	JMJD1C	nonsense	NM_032776:p.Q146X
13280	11	6189563	6189563	C	A	C	M	exonic	FAM160A2	nonsense	NM_032127:p.G904X
13280	13	22813667	22813667	C	T	C	Y	exonic	SACS	nonsense	NM_014363:p.W783X
13280	13	47935919	47935919	A	T	A	W	exonic	RB1	nonsense	NM_000321:p.K720X
13280	17	26600139	26600139	C	G	C	S	exonic	NF1	nonsense	NM_001042492:p.S1329X
13280	18	49239652	49239652	C	T	C	Y	exonic	DCC	nonsense	NM_005215:p.R1149X
13280	19	17299498	17299498	C	T	C	Y	splicing	ANO8	silent	NM_020959:p.Q806Q
13280	20	31084499	31084499	C	-	G	*/-C	exonic	BPIL3	FS_del	NM_174897:c.146_146delC
13280	X	128976652	128976652	C	-	A	*/-C	exonic	BCORL1	FS_del	NM_021946:c.2223_2223delC
13394	1	33962809	33962809	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.A887S
13394	1	156864046	156864046	A	G	A	R	exonic	SPTA1	missense	NM_003126:p.L1886P
13394	1	202670253	202670253	T	C	T	Y	exonic	PIK3C2B	missense	NM_002646:p.H1208R
13394	2	58220303	58220303	A	T	A	W	splicing	VRK2	NA	NA
13394	3	10836396	10836396	G	T	G	K	splicing	SLC6A11	NA	NA
13394	3	10836397	10836397	G	T	G	K	splicing	SLC6A11	missense	NM_014229:p.G131V
13394	9	111938576	111938576	G	T	G	K	exonic	AKAP2	nonsense	NM_007203:p.E311X
13394	10	17182203	17182203	C	A	C	M	exonic	CUBN	missense	NM_001081:p.M524I
13394	11	10439826	10439826	G	T	G	K	exonic	AMPD3	nonsense	NM_000480:p.E71X
13394	12	38043241	38043241	G	C	G	S	exonic	KIF21A	missense	NM_017641:p.S315R
13394	15	83206930	83206930	G	A	G	R	exonic	ALPK3	missense	NM_020778:p.C1599Y
13394	15	83207845	83207845	G	T	G	K	exonic	ALPK3	missense	NM_020778:p.R1692L
13394	17	7520310	7520310	G	-	A	*/-G	exonic	TP53	FS_del	NM_001126114:c.102_102delC
13394	17	27645575	27645575	G	C	G	S	splicing	RHBDL3	NA	NA
13394	17	39687558	39687558	T	C	T	Y	splicing	SLC4A1	NA	NA
13394	20	1405926	1405926	T	C	T	Y	intronic	SIRPB2	NA	NA
13542	1	70030416	70030416	G	C	G	S	exonic	LRRC7	missense	NM_020794:p.D98H
13542	1	150458174	150458174	G	A	G	R	exonic	HRNR	missense	NM_001009931:p.S852L
13542	1	194887810	194887810	A	T	A	W	splicing	ENSG00000000000	NA	NA
13542	1	202705205	202705205	G	C	G	S	exonic	PIK3C2B	missense	NM_002646:p.P117A
13542	2	168732055	168732055	C	A	C	M	splicing	STK39	missense	NM_013233:p.G144C
13542	3	39160796	39160796	G	A	G	R	exonic	CSRNP1	nonsense	NM_033027:p.R206X
13542	5	131036112	131036112	C	A	C	M	exonic	FNIP1	nonsense	NM_001008738:p.G614X
13542	5	132260182	132260182	G	T	G	K	exonic	AFF4	nonsense	NM_014423:p.S680X
13542	6	117716586	117716586	C	A	C	M	exonic	ROS1	missense	NM_002944:p.R2269L
13542	6	131318051	131318051	G	A	G	R	exonic	EPB41L2	nonsense	NM_001199389:p.Q198X
13542	7	65254645	65254645	G	T	G	K	exonic	CRCP	nonsense	NM_014478:p.E105X



13542	7	107408439	107408439	C	A	C	M	exonic	LAMB1	nonsense	NM_002291:p.G244X
13542	8	41641662	41641662	C	T	C	Y	exonic	ANK1	missense	NM_001142445:p.V13M
13542	8	86224364	86224364	-	A	G	*/+A	exonic	LRRCC1	FS_ins	NM_033402:p.E404fs
13542	8	113767075	113767075	C	A	C	M	exonic	CSMD3	missense	NM_198123:p.G740W
13542	10	75535004	75535007	CCGA	-	T	*/-CCGA	exonic	VCL	FS_del	NM_014000:p.774_775del
13542	12	733449	733449	C	T	C	Y	exonic	WNK1	missense	NM_018979:p.P153S
13542	12	33470346	33470346	G	T	G	K	exonic	SYT10	nonsense	NM_198992:p.S168X
13542	12	54507422	54507422	G	A	G	R	exonic	DNAJC14	nonsense	NM_032364:p.R430X
13542	16	66423859	66423859	C	A	C	M	splicing	CENPT	missense	NM_025082:p.R67S
13542	X	91020927	91020927	C	A	C	M	splicing	PCDH11X	missense	NM_032969:p.P1011Q
13681	1	144312975	144312975	-	T	C	*/+T	exonic	POLR3C	FS_ins	NM_006468:p.S263fs
13681	1	174792355	174792355	A	T	A	W	exonic	PAPPA2	missense	NM_021936:p.T92S
13681	2	102407169	102407169	A	T	A	W	exonic	IL18RAP	nonsense	NM_003853:p.K148X
13681	11	5819164	5819164	G	T	G	K	exonic	OR52E6	nonsense	NM_001005167:p.Y180X
13681	12	77106175	77106175	C	T	C	Y	exonic	NAV3	missense	NM_014903:p.A1914V
13681	13	99751718	99751718	G	T	G	K	exonic	PCCA	nonsense	NM_000282:p.E357X
13681	19	10463584	10463584	C	A	C	M	exonic	KEAP1	missense	NM_012289:p.G332C
13681	X	71812673	71812673	A	-	C	*/-A	exonic	PHKA1	nonsense	NM_001172436:p.L197X
13681	X	149663568	149663568	-	T	G	*/+T	exonic	MTMR1	FS_ins	NM_003828:p.W509fs
15145	1	152299638	152299638	A	T	A	W	splicing	NUP210L	NA	NA
15145	2	140771876	140771876	G	T	G	K	exonic	LRP1B	missense	NM_018557:p.P4313Q
15145	19	10461447	10461447	G	A	G	R	exonic	KEAP1	missense	NM_012289:p.R470C
15145	X	152639620	152639620	A	G	A	R	splicing	BCAP31	missense	NM_001139457:p.W99R
15822	2	172358391	172358391	G	C	G	S	exonic	SLC25A12	missense	NM_003705:p.L480V
15822	3	149942327	149942327	G	A	G	R	exonic	AGTR1	missense	NM_009585:p.R272H
15822	15	39600027	39600027	G	C	G	S	exonic	RPAP1	missense	NM_015540:p.H1217D
15822	17	7520046	7520047	CA	-	T	*/-CA	exonic	TP53	FS_del	NM_001126113:p.122_122del
15822	17	7623316	7623316	A	C	A	M	exonic	DNAH2	missense	NM_020877:p.N1858H
15858	3	99370847	99370847	C	A	C	M	exonic	OR5H15	nonsense	NM_001005515:p.S205X
15858	3	156338584	156338584	G	T	G	K	splicing	MME	NA	NA
15858	7	47861096	47861096	C	A	C	M	exonic	PKD1L1	nonsense	NM_138295:p.E1590X
15858	7	73607760	73607760	G	T	G	K	splicing	GTF2IRD1	nonsense	NM_001199207:p.E707X
15858	7	106332952	106332952	A	G	A	R	exonic	PIK3CG	missense	NM_002649:p.K1065E
15858	8	87629779	87629779	G	A	G	R	splicing	CPNE3	NA	NA
15858	10	17020982	17020982	A	T	A	W	exonic	CUBN	missense	NM_001081:p.Y1907N
15858	X	135560223	135560223	G	T	G	K	splicing	CD40LG	NA	NA
16246	1	85185304	85185304	T	C	T	Y	splicing	MCOLN2	missense	NM_153259:p.T283A
16246	1	156873075	156873075	C	A	C	M	exonic	SPTA1	missense	NM_003126:p.A1764S
16246	1	238138096	238138096	A	T	A	W	exonic	CHRM3	missense	NM_000740:p.Y241F
16246	2	24114239	24114239	G	A	G	R	exonic	C2orf44	nonsense	NM_001142319:p.Q544X
16246	3	122823258	122823258	G	T	G	K	exonic	FBXO40	nonsense	NM_016298:p.E98X
16246	3	168667651	168667651	G	A	G	R	exonic	SERPINI2	nonsense	NM_006217:p.Q122X
16246	5	33719744	33719744	A	T	A	W	exonic	ADAMTS12	missense	NM_030955:p.Y270N
16246	5	156522864	156522864	C	A	C	M	exonic	FAM71B	missense	NM_130899:p.M330I
16246	7	81177454	81177454	C	G	C	S	exonic	HGF	missense	NM_000601:p.V496L
16246	7	128274184	128274184	G	T	G	K	exonic	FLNC	missense	NM_001127487:p.R1426L
16246	8	41649300	41649300	C	A	C	M	exonic	ANK1	nonsense	NM_000037:p.E1609X
16246	8	139279008	139279008	G	T	G	K	exonic	FAM135B	nonsense	NM_015912:p.Y252X
16246	9	34333373	34333373	C	T	C	Y	exonic	NUDT2	nonsense	NM_147173:p.Q127X
16246	9	111745274	111745274	G	T	G	K	exonic	PALM2	missense	NM_001037293:p.K296N
16246	10	21169757	21169757	C	A	C	M	exonic	NEBL	nonsense	NM_006393:p.E419X
16246	10	28269742	28269742	T	A	T	W	splicing	ARMC4	NA	NA
16246	10	50489118	50489118	C	A	C	M	exonic	SLC18A3	nonsense	NM_003055:p.S109X
16246	10	68969392	68969392	G	T	G	K	exonic	CTNNA3	missense	NM_013266:p.P112T
16246	10	96084464	96084464	A	G	A	R	splicing	NOC3L	missense	NM_022451:p.S731P
16246	11	12182371	12182371	A	G	A	R	splicing	MICAL2	NA	NA
16246	12	14501436	14501436	G	T	G	K	exonic	ATF7IP	nonsense	NM_018179:p.E700X
16246	12	29532011	29532011	-	A	C	*/+A	exonic	OVCH1	FS_ins	NM_183378:p.W258fs
16246	12	65074319	65074319	C	A	C	M	exonic	GRIP1	nonsense	NM_021150:p.G637X
16246	13	47839630	47839630	G	T	G	K	splicing	RB1	NA	NA
16246	13	76678855	76678855	C	A	C	M	exonic	MYCBP2	nonsense	NM_015057:p.E1175X
16246	17	36977527	36977527	C	A	C	M	splicing	KRT9	nonsense	NM_000226:p.E466X
16246	19	60739402	60739402	-	A	C	*/+A	exonic	SBK2	FS_ins	NM_001101401:p.L24fs
16246	X	91019650	91019650	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.R585S
16246	X	91760002	91760002	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.A1141S
16461	1	12339107	12339107	G	T	G	K	exonic	VPS13D	nonsense	NM_018156:p.E3288X
16461	1	33771372	33771372	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.G3202W
16461	1	99160143	99160143	G	T	G	K	exonic	LPPR5	nonsense	NM_001010861:p.C227X
16461	1	181763743	181763743	G	T	G	K	exonic	SMG7	nonsense	NM_173156:p.E172X
16461	1	214318104	214318104	C	A	C	M	exonic	USH2A	missense	NM_206933:p.G1841V
16461	1	228405582	228405582	C	G	C	S	exonic	GALNT2	nonsense	NM_004481:p.Y99X
16461	2	11251832	11251832	C	A	C	M	splicing	ROCK2	NA	NA
16461	2	127978729	127978729	C	G	C	S	splicing	IWS1	NA	NA
16461	2	140845229	140845229	C	T	C	Y	exonic	LRP1B	missense	NM_018557:p.G3622S
16461	2	141174422	141174422	C	A	C	M	exonic	LRP1B	missense	NM_018557:p.K2222N
16461	2	170523284	170523284	T	A	T	W	splicing	UBR3	NA	NA
16461	3	120106213	120106213	C	A	C	M	exonic	IGSF11	nonsense	NM_152538:p.E275X
16461	3	121008984	121008984	G	T	G	K	splicing	NR1I2	missense	NM_033013:p.R66M
16461	4	47637581	47637581	G	T	G	K	exonic	CNGA1	nonsense	NM_001142564:p.S276X

16461	4	111617255	111617255	C	T	C	Y	exonic	ENPEP	missense	NM_001977:p.P79L
16461	4	126592414	126592414	G	C	G	S	exonic	FAT4	missense	NM_024582:p.G3598A
16461	4	177320231	177320231	A	T	A	W	exonic	WDR17	missense	NM_181265:p.K921I
16461	5	138735759	138735759	G	C	G	S	exonic	SLC23A1	nonsense	NM_152685:p.Y548X
16461	6	28401960	28401960	T	A	T	W	exonic	ZNF323	nonsense	NM_001135216:p.K395X
16461	6	55236465	55236465	T	-	G	*/-T	splicing	HCRTR2	FS_del	NM_001526:p.G216fs
16461	6	126283848	126283848	G	T	G	K	exonic	NCOA7	nonsense	NM_001199621:p.E656X
16461	6	152748603	152748603	C	A	C	M	exonic	SYNE1	nonsense	NM_182961:p.E2851X
16461	8	86229469	86229469	A	T	A	W	exonic	LRRCC1	nonsense	NM_033402:p.R564X
16461	9	8309927	8309927	G	T	G	K	exonic	PTPRD	missense	NM_002839:p.S1858R
16461	10	59667516	59667516	C	A	C	M	exonic	IPMK	nonsense	NM_152230:p.E86X
16461	10	116082968	116082968	A	G	A	R	splicing	AFAP1L2	NA	NA
16461	10	116965629	116965629	G	C	G	S	splicing	ATRNL1	NA	NA
16461	11	55015121	55015121	G	T	G	K	splicing	ENSG000001	NA	NA
16461	11	63642165	63642165	-	T	C	*/+T	exonic	FLRT1	FS_ins	NM_013280:p.P617fs
16461	12	70236666	70236666	A	G	A	R	splicing	LGR5	silent	NM_003667:p.L215L
16461	14	69514388	69514388	G	A	G	R	splicing	SMOC1	missense	NM_022137:p.G160D
16461	14	72729214	72729214	C	T	C	Y	exonic	PSEN1	nonsense	NM_007318:p.R216X
16461	15	26184426	26184426	T	A	T	W	exonic	HERC2	missense	NM_004667:p.K601N
16461	15	62293196	62293196	T	A	T	W	exonic	CSNK1G1	nonsense	NM_022048:p.K209X
16461	16	60318499	60318499	T	A	T	W	splicing	CDH8	missense	NM_001796:p.Q512H
16461	17	7519186	7519186	C	A	C	M	exonic	TP53	missense	NM_001126117:p.V25F
16461	17	63164444	63164444	G	T	G	K	exonic	NOL11	nonsense	NM_015462:p.E475X
16461	18	20264297	20264297	A	T	A	W	exonic	IMPACT	nonsense	NM_018439:p.K78X
16461	18	21060333	21060333	G	A	G	R	exonic	ZNF521	missense	NM_015461:p.P516L
16461	18	27352199	27352199	G	C	G	S	splicing	DSG2	NA	NA
16461	18	40784483	40784483	G	C	G	S	exonic	SETBP1	missense	NM_015559:p.E394Q
16461	18	49230869	49230869	G	A	G	R	splicing	DCC	silent	NM_005215:p.E1077E
16461	19	11005877	11005877	G	A	G	R	splicing	SMARCA4	NA	NA
16461	19	52277392	52277392	C	G	C	S	splicing	ZC3H4	missense	NM_015168:p.G407R
16461	20	2589617	2589617	T	C	T	Y	splicing	IDH3B	NA	NA
16461	20	43315658	43315658	G	T	G	K	exonic	SLPI	nonsense	NM_003064:p.C72X
16461	21	36542725	36542725	A	T	A	W	exonic	DOPEY2	nonsense	NM_005128:p.K1663X
16461	22	22789466	22789466	G	T	G	K	exonic	CABIN1	nonsense	NM_001201429:p.G531X
16461	X	77799712	77799712	C	A	C	M	exonic	ZCCHC5	nonsense	NM_152694:p.G288X
16461	X	91020657	91020657	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.W921L
16617	2	100947066	100947066	T	A	T	W	exonic	NPAS2	nonsense	NM_002518:p.L238X
16617	2	144873038	144873038	G	C	G	S	exonic	ZEB2	missense	NM_014795:p.P729R
16617	3	140148040	140148055	TCCCGG	-	C	*/-	exonic	FOXL2	FS_del	NM_023067:p.67_72del
				GCTCT				TCCCGG			
				CGCGG				CTCTCGC			
				A				GGA			
16617	4	163174261	163174261	C	A	C	M	splicing	FSTL5	NA	NA
16617	5	36147118	36147118	C	A	C	M	splicing	LMBRD2	NA	NA
16617	6	155195790	155195790	C	T	C	Y	exonic	SCAF8	nonsense	NM_014892:p.R1129X
16617	7	81473027	81473027	G	A	G	R	exonic	CACNA2D1	missense	NM_000722:p.P502L
16617	7	106297104	106297104	C	A	C	M	exonic	PIK3CG	missense	NM_002649:p.A621D
16617	10	68649635	68649635	C	A	C	M	splicing	CTNNA3	NA	NA
16617	10	127833864	127833864	T	A	T	W	splicing	ADAM12	missense	NM_021641:p.E87D
16617	15	43510258	43510258	A	G	A	R	splicing	C15orf48	NA	NA
16617	X	77175949	77175949	C	-	T	*/-C	exonic	ATP7A	FS_del	NM_000052:p.S1162fs
16989	1	173371663	173371663	G	-	T	*/-G	exonic	TNN	FS_del	NM_022093:p.V1130fs
16989	1	245655305	245655305	C	A	C	M	exonic	NLRP3	missense	NM_001079821:p.A646D
16989	2	25323041	25323041	G	-	A	*/-G	exonic	DNMT3A	FS_del	NM_022552:p.L411fs
16989	2	80383448	80383448	G	T	G	K	exonic	LRRTM1	nonsense	NM_178839:p.Y336X
16989	5	168133912	168133912	C	T	C	Y	exonic	SLIT3	missense	NM_003062:p.D401N
16989	16	20236199	20236199	C	G	C	S	splicing	GP2	NA	NA
16989	17	35135509	35135509	A	T	A	W	exonic	ERBB2	missense	NM_004448:p.T917S
16989	19	36459745	36459745	G	C	G	S	exonic	TSHZ3	missense	NM_020856:p.R932G
18472	1	239818721	239818721	C	T	C	Y	exonic	KMO	missense	NM_003679:p.A355V
18472	2	157992155	157992155	A	G	A	R	exonic	CYTIP	missense	NM_004288:p.M167T
18472	2	201839759	201839759	G	T	G	K	splicing	CASP8	missense	NM_001080124:p.R102M
18472	2	206732976	206732976	G	A	G	R	exonic	EEF1B2	missense	NM_001959:p.A10T
18472	2	220201467	220201467	C	A	C	M	exonic	SLC4A3	missense	NM_201574:p.L50I
18472	4	75703705	75703705	G	A	G	R	exonic	AREG	missense	NM_001657:p.G157R
18472	6	29697940	29697940	G	A	G	R	exonic	GABBR1	nonsense	NM_001470:p.R329X
18472	8	145062820	145062820	C	T	C	Y	exonic	PLEC	missense	NM_201384:p.R4386H
18472	9	115970958	115970958	G	C	G	S	exonic	COL27A1	missense	NM_032888:p.R434S
18472	9	133759164	133759164	T	C	T	Y	exonic	MED27	missense	NM_004269:p.M204V
18472	10	26546545	26546545	C	T	C	Y	splicing	GAD2	missense	NM_001134366:p.A26V
18472	11	128286493	128286493	C	T	C	Y	exonic	KCNJ5	missense	NM_000890:p.R39C
18472	12	537121	537121	G	A	G	R	exonic	B4GALNT3	missense	NM_173593:p.V823I
18472	12	52001409	52001409	G	-	C	*/-G	exonic	AAAS	FS_del	NM_015665:p.P36fs
18472	14	22896379	22896379	C	A	C	M	exonic	EFS	missense	NM_032459:p.G435C
18472	14	51575302	51575302	G	T	G	K	exonic	NID2	missense	NM_007361:p.L724M
18472	14	64475994	64475994	G	A	G	R	exonic	GPX2	missense	NM_002083:p.P180S
18472	16	84512357	84512357	T	-	A	*/-T	exonic	IRF8	FS_del	NM_002163:p.F417fs
18472	17	7163125	7163125	G	A	G	R	exonic	NEURL4	missense	NM_001005408:p.R1216W
18472	17	46452553	46452553	T	C	T	Y	exonic	SPAG9	missense	NM_001130528:p.M353V

18472	18	27947722	27947722	T	C	T	Y	exonic	RNF138	missense	NM_001191324:p.M135T
18472	X	53619386	53619386	T	C	T	Y	exonic	HUWE1	missense	NM_031407:p.Y1991C
18472	X	70741089	70741089	A	G	A	R	exonic	ACRC	missense	NM_052957:p.R413G
18472	X	152840026	152840026	G	A	G	R	exonic	ARHGAP4	missense	NM_001666:p.R141C
LU-1516	6	31233141	31233141	C	A	C	M	splicing	CCHCR1	missense	NM_001105563:p.R72S
LU-1991	1	153416390	153416390	G	A	G	R	splicing	TRIM46	silent	NM_025058:p.E303E
LU-1991	1	174317038	174317038	G	A	G	R	exonic	RFWD2	nonsense	NM_022457:p.R384X
LU-1991	1	213920329	213920329	G	A	G	R	exonic	USH2A	nonsense	NM_206933:p.Q4027X
LU-1991	1	214436544	214436544	G	C	G	S	exonic	USH2A	missense	NM_007123:p.Q1409E
LU-1991	2	39850514	39850514	-	T	G	*/+T	exonic	THUMP2	FS_ins	NM_025264:p.T171fs
LU-1991	2	44055401	44055401	T	A	T	W	splicing	LRPPRC	missense	NM_133259:p.T289S
LU-1991	2	167815498	167815498	G	T	G	K	exonic	XIRP2	missense	NM_152381:p.R3117L
LU-1991	2	185511592	185511592	C	A	C	M	exonic	ZNF804A	missense	NM_194250:p.P1075Q
LU-1991	2	190136556	190136556	G	T	G	K	splicing	SLC40A1	silent	NM_014585:p.I467I
LU-1991	3	43571774	43571774	C	A	C	M	splicing	ANO10	missense	NM_018075:p.Q556H
LU-1991	3	109657390	109657390	G	T	G	K	exonic	MYH15	nonsense	NM_014981:p.C735X
LU-1991	4	20102491	20102491	C	A	C	M	exonic	SLIT2	nonsense	NM_004787:p.S262X
LU-1991	4	116011556	116011556	C	A	C	M	splicing	NDST4	NA	NA
LU-1991	4	126631264	126631264	C	G	C	S	exonic	FAT4	missense	NM_024582:p.P4613A
LU-1991	4	129262757	129262757	G	A	G	R	exonic	LARP1B	nonsense	NM_178043:p.W496X
LU-1991	5	63292603	63292603	C	A	C	M	exonic	HTR1A	nonsense	NM_000524:p.E234X
LU-1991	5	170278394	170278394	G	T	G	K	exonic	RANBP17	nonsense	NM_022897:p.G343X
LU-1991	6	127941611	127941611	G	T	G	K	splicing	C6orf58	NA	NA
LU-1991	7	102994403	102994403	C	T	C	Y	exonic	RELN	nonsense	NM_005045:p.W1543X
LU-1991	7	106311891	106311891	C	-	A	*/-C	exonic	PIK3CG	FS_del	NM_002649:p.T939fs
LU-1991	7	142335346	142335346	G	C	G	S	exonic	TRPV5	missense	NM_019841:p.L290V
LU-1991	9	96102064	96102064	A	T	A	W	exonic	ZNF169	nonsense	NM_194320:p.R135X
LU-1991	10	15160750	15160750	C	A	C	M	exonic	ACBD7	nonsense	NM_001039844:p.G47X
LU-1991	10	15726035	15726035	C	T	C	Y	splicing	ITGA8	missense	NM_003638:p.D467N
LU-1991	11	57727622	57727622	G	C	G	S	exonic	OR1S2	nonsense	NM_001004459:p.S203X
LU-1991	11	87940653	87940653	C	A	C	M	exonic	GRM5	nonsense	NM_000842:p.E616X
LU-1991	12	131120139	131120139	G	C	G	S	splicing	EP400	missense	NM_015409:p.Q3006H
LU-1991	15	53763422	53763422	C	G	C	S	splicing	PRTG	NA	NA
LU-1991	16	82786039	82786039	G	C	G	S	splicing	ADAD2	NA	NA
LU-1991	17	7519192	7519192	T	G	T	K	exonic	TP53	missense	NM_001126117:p.T23P
LU-1991	17	10157324	10157324	C	A	C	M	exonic	MYH13	nonsense	NM_003802:p.E1353X
LU-1991	17	38090868	38090868	G	T	G	K	exonic	CNTNAP1	nonsense	NM_003632:p.E207X
LU-1991	17	38384953	38384953	C	A	C	M	exonic	AARSD1	nonsense	NM_001136042:p.E96X
LU-1991	18	6954803	6954803	C	G	C	S	splicing	LAMA1	NA	NA
LU-1991	18	21058618	21058618	G	T	G	K	exonic	ZNF521	missense	NM_015461:p.L1088M
LU-1991	18	21061233	21061233	G	T	G	K	exonic	ZNF521	missense	NM_015461:p.S216Y
LU-2349	7	54787609	54787609	T	C	T	Y	splicing	SEC61G	NA	NA
LU-2349	7	81552054	81552054	C	A	C	M	exonic	CACNA2D1	missense	NM_000722:p.G209C
LU-2349	10	115364589	115364589	T	A	T	W	splicing	NRAP	missense	NM_006175:p.D1027V
LU-2349	11	65947914	65947914	T	A	T	W	exonic	NPAS4	nonsense	NM_178864:p.L326X
LU-2349	12	77122921	77122921	C	A	C	M	exonic	NAV3	missense	NM_014903:p.L2282M
Lu-2375	11	408922	408922	C	T	C	Y	exonic	ANO9	missense	NM_001012302:p.G668R
Lu-597	3	47136892	47136895	CTCT	-	A	*/-CTCT	exonic	SETD2	FS_del	NM_014159:c.4235_4238del
Lu-597	12	121946481	121946481	G	C	G	S	exonic	VPS37B	missense	NM_024667:p.L28V
Lu-597	20	33776439	33776439	A	T	A	W	exonic	RBM39	missense	NM_184234:p.C157S

**Supplementary Table 6.** Concordance of genotypes from the HapMap project and from the NimbleGen platform

IMAGE_ID	BG_COR	CALL_RATE	ACCURACY	FALSE_CALL	CALL_RATE_GOOD	ACCURACY_GOOD	FALSE_CALL_GOOD	CALL_RATE_POOR	ACCURACY_POOR	FALSE_CALL_POOR	NR_REF_SNPS	NR_REF_SNPS_GOOD
449920A01_2010-11-19_GMLE_532	GMLE	99.68	99.9	0.1	99.7	99.9	0.1	99.63	99.88	0.12	12636	9406
449920A02_2010-11-19_GMLE_532	GMLE	99.68	99.9	0.1	99.66	99.89	0.11	99.72	99.91	0.09	12636	9406
449920A03_2010-11-19_GMLE_532	GMLE	99.66	99.94	0.06	99.64	99.96	0.04	99.72	99.88	0.12	12636	9406
449920A04_2010-11-19_GMLE_532	GMLE	99.73	99.9	0.1	99.73	99.9	0.1	99.72	99.88	0.12	12636	9406
449920A05_2010-11-19_GMLE_532	GMLE	99.67	99.92	0.08	99.68	99.93	0.07	99.63	99.91	0.09	12636	9406
449920A06_2010-11-19_GMLE_532	GMLE	99.72	99.92	0.08	99.72	99.94	0.06	99.72	99.88	0.12	12636	9406
449920A08_2010-11-19_GMLE_532	GMLE	99.8	99.94	0.06	99.81	99.95	0.05	99.78	99.91	0.09	12636	9406
449920A09_2010-11-19_GMLE_532	GMLE	99.82	99.94	0.06	99.83	99.96	0.04	99.78	99.88	0.12	12636	9406
449920A10_2010-11-19_GMLE_532	GMLE	99.74	99.94	0.06	99.74	99.96	0.04	99.72	99.91	0.09	12636	9406
449920A11_2010-11-19_GMLE_532	GMLE	99.83	99.94	0.06	99.84	99.95	0.05	99.78	99.91	0.09	12636	9406
449920A12_2010-11-19_GMLE_532	GMLE	99.8	99.92	0.08	99.81	99.95	0.05	99.78	99.84	0.16	12636	9406
449921A01_2010-11-19_GMLE_532	GMLE	99.83	99.94	0.06	99.85	99.96	0.04	99.78	99.88	0.12	12636	9406
449921A02_2010-11-19_GMLE_532	GMLE	99.43	99.9	0.1	99.4	99.95	0.05	99.5	99.75	0.25	12636	9406
449921A03_2010-11-19_GMLE_532	GMLE	99.84	99.93	0.07	99.83	99.95	0.05	99.88	99.88	0.12	12636	9406
449921A04_2010-11-19_GMLE_532	GMLE	99.63	99.92	0.08	99.62	99.95	0.05	99.66	99.84	0.16	12636	9406
449921A05_2010-11-19_GMLE_532	GMLE	99.83	99.93	0.07	99.85	99.95	0.05	99.75	99.88	0.12	12636	9406
449921A06_2010-11-19_GMLE_532	GMLE	99.66	99.91	0.09	99.66	99.93	0.07	99.66	99.88	0.12	12636	9406
449921A07_2010-11-19_GMLE_532	GMLE	99.9	99.94	0.06	99.9	99.96	0.04	99.88	99.88	0.12	12636	9406
449921A08_2010-11-19_GMLE_532	GMLE	99.64	99.9	0.1	99.66	99.91	0.09	99.57	99.84	0.16	12636	9406
449921A09_2010-11-19_GMLE_532	GMLE	99.88	99.92	0.08	99.89	99.95	0.05	99.85	99.84	0.16	12636	9406
449921A10_2010-11-19_GMLE_532	GMLE	96.3	99.47	0.53	96.13	99.46	0.54	96.81	99.49	0.51	12636	9406
449921A11_2010-11-19_GMLE_532	GMLE	99.81	99.93	0.07	99.82	99.96	0.04	99.78	99.84	0.16	12636	9406
449921A12_2010-11-19_GMLE_532	GMLE	99.65	99.92	0.08	99.68	99.94	0.06	99.57	99.88	0.12	12636	9406
449922A01_2010-11-22_GMLE_532	GMLE	99.44	99.95	0.05	99.47	99.96	0.04	99.35	99.94	0.06	12636	9406
449922A02_2010-11-22_GMLE_532	GMLE	98.82	99.48	0.52	98.66	99.42	0.58	99.29	99.66	0.34	12636	9406
449922A03_2010-11-22_GMLE_532	GMLE	99.79	99.93	0.07	99.78	99.96	0.04	99.85	99.84	0.16	12636	9406
449922A04_2010-11-22_GMLE_532	GMLE	99.72	99.94	0.06	99.72	99.96	0.04	99.72	99.88	0.12	12636	9406
449922A05_2010-11-22_GMLE_532	GMLE	99.78	99.93	0.07	99.81	99.95	0.05	99.69	99.88	0.12	12636	9406
449922A06_2010-11-22_GMLE_532	GMLE	99.69	99.94	0.06	99.68	99.97	0.03	99.72	99.88	0.12	12636	9406
449922A07_2010-11-22_GMLE_532	GMLE	99.83	99.94	0.06	99.84	99.95	0.05	99.78	99.91	0.09	12636	9406
449922A08_2010-11-22_GMLE_532	GMLE	99.8	99.94	0.06	99.79	99.96	0.04	99.85	99.91	0.09	12636	9406
449922A09_2010-11-22_GMLE_532	GMLE	99.8	99.94	0.06	99.84	99.95	0.05	99.69	99.91	0.09	12636	9406
449922A10_2010-11-22_GMLE_532	GMLE	99.76	99.91	0.09	99.78	99.91	0.09	99.72	99.91	0.09	12636	9406
449922A11_2010-11-22_GMLE_532	GMLE	99.79	99.94	0.06	99.8	99.96	0.04	99.78	99.88	0.12	12636	9406
449922A12_2010-11-22_GMLE_532	GMLE	99.79	99.92	0.08	99.8	99.93	0.07	99.78	99.91	0.09	12636	9406
450124A03_GMLE_532	GMLE	99.45	99.94	0.06	99.38	99.97	0.03	99.63	99.88	0.12	12636	9406
450124A05_GMLE_532	GMLE	99.37	99.88	0.12	99.33	99.91	0.09	99.47	99.78	0.22	12636	9406
450124A06_GMLE_532	GMLE	99.41	99.9	0.1	99.37	99.94	0.06	99.5	99.81	0.19	12636	9406
450124A08_GMLE_532	GMLE	99.67	99.93	0.07	99.61	99.95	0.05	99.85	99.88	0.12	12636	9406
450124A10_GMLE_532	GMLE	99.6	99.92	0.08	99.53	99.93	0.07	99.78	99.91	0.09	12636	9406
457035A01_2010-11-18_GMLE_532	GMLE	99.68	99.94	0.06	99.77	99.97	0.03	99.44	99.84	0.16	12636	9406
457035A02_2010-11-18_GMLE_532	GMLE	99.49	99.91	0.09	99.54	99.93	0.07	99.35	99.88	0.12	12636	9406
457035A03_2010-11-18_GMLE_532	GMLE	99.82	99.94	0.06	99.8	99.96	0.04	99.88	99.88	0.12	12636	9406
457035A04_2010-11-18_GMLE_532	GMLE	99.8	99.9	0.1	99.83	99.91	0.09	99.72	99.84	0.16	12636	9406
457035A05_2010-11-18_GMLE_532	GMLE	99.79	99.92	0.08	99.79	99.95	0.05	99.81	99.84	0.16	12636	9406
457035A06_2010-11-18_GMLE_532	GMLE	99.83	99.92	0.08	99.83	99.95	0.05	99.81	99.84	0.16	12636	9406
457035A07_2010-11-18_GMLE_532	GMLE	99.87	99.93	0.07	99.89	99.95	0.05	99.81	99.88	0.12	12636	9406
457035A08_2010-11-18_GMLE_532	GMLE	99.79	99.94	0.06	99.8	99.96	0.04	99.78	99.88	0.12	12636	9406
457035A09_2010-11-18_GMLE_532	GMLE	99.85	99.92	0.08	99.85	99.96	0.04	99.85	99.81	0.19	12636	9406
457035A10_2010-11-18_GMLE_532	GMLE	99.87	99.91	0.09	99.89	99.93	0.07	99.81	99.88	0.12	12636	9406
457035A11_2010-11-18_GMLE_532	GMLE	99.9	99.94	0.06	99.91	99.96	0.04	99.85	99.88	0.12	12636	9406
457035A12_2010-11-18_GMLE_532	GMLE	99.89	99.91	0.09	99.9	99.91	0.09	99.85	99.91	0.09	12636	9406
Mean	GMLE	99.647	99.907	0.093	99.64	99.92	0.075	99.66	99.86	0.138	12636	9406
SE	GMLE	0.0704	0.0123	0.012	0.075	0.014	0.014	0.059	0.01	0.01	0	0

IMAGE_ID	NR_REF_SNPs_POOR	MEAN_DISCRIM_SCOR	MEAN_DISCRIM_HET	MEAN_INTENS_MAJOR	MEAN_INTENS_MINOR	NR_SNPs_AA	NR_SNPs_AB	NR_SNPs_BB	NR_SNPs_NoCall
449920A01_2010-11-19_GMLE_532	3230	12.33	1.15	2542	256.4	5034	159	7403	40
449920A02_2010-11-19_GMLE_532	3230	11.77	1.17	2572	269.2	5036	159	7400	41
449920A03_2010-11-19_GMLE_532	3230	10.41	1.15	2434	266	5033	161	7399	43
449920A04_2010-11-19_GMLE_532	3230	11.12	1.18	2580	270.1	5035	169	7398	34
449920A05_2010-11-19_GMLE_532	3230	13.24	1.17	2519	239.9	5034	159	7401	42
449920A06_2010-11-19_GMLE_532	3230	12.24	1.15	2528	252.1	5035	167	7399	35
449920A08_2010-11-19_GMLE_532	3230	13.77	1.17	2586	236.4	5033	179	7399	25
449920A09_2010-11-19_GMLE_532	3230	14.18	1.18	2542	229	5034	180	7399	23
449920A10_2010-11-19_GMLE_532	3230	13.15	1.17	2537	240.7	5033	171	7399	33
449920A11_2010-11-19_GMLE_532	3230	14.45	1.17	2529	226.8	5033	181	7400	22
449920A12_2010-11-19_GMLE_532	3230	14.24	1.16	2538	228.6	5035	176	7400	25
449921A01_2010-11-19_GMLE_532	3230	13.24	1.16	2534	245.1	5034	183	7398	21
449921A02_2010-11-19_GMLE_532	3230	7.56	1.22	2664	380.5	5021	166	7377	72
449921A03_2010-11-19_GMLE_532	3230	14.24	1.17	2373	210.7	5033	182	7401	20
449921A04_2010-11-19_GMLE_532	3230	12.7	1.17	2516	254.9	5033	155	7401	47
449921A05_2010-11-19_GMLE_532	3230	14.46	1.17	2586	225.3	5034	180	7400	22
449921A06_2010-11-19_GMLE_532	3230	9.75	1.15	2585	302.1	5033	160	7400	43
449921A07_2010-11-19_GMLE_532	3230	15.39	1.18	2535	211.2	5033	190	7400	13
449921A08_2010-11-19_GMLE_532	3230	12.42	1.15	2538	258.4	5035	153	7402	46
449921A09_2010-11-19_GMLE_532	3230	15.29	1.17	2506	214.9	5034	186	7401	15
449921A10_2010-11-19_GMLE_532	3230	11.1	1.48	2685	293.9	4897	16	7256	467
449921A11_2010-11-19_GMLE_532	3230	14.89	1.15	2576	227.3	5034	178	7400	24
449921A12_2010-11-19_GMLE_532	3230	11.73	1.17	2583	273.2	5033	158	7401	44
449922A01_2010-11-22_GMLE_532	3230	7.18	1.17	2773	405	5028	146	7391	71
449922A02_2010-11-22_GMLE_532	3230	9.65	NA	2663	315.7	5059	0	7428	149
449922A03_2010-11-22_GMLE_532	3230	12.31	1.16	2370	230.8	5034	176	7400	26
449922A04_2010-11-22_GMLE_532	3230	11.65	1.17	2538	258.1	5035	169	7397	35
449922A05_2010-11-22_GMLE_532	3230	13.26	1.18	2507	234.1	5035	175	7398	28
449922A06_2010-11-22_GMLE_532	3230	12.01	1.16	2537	254.9	5034	166	7397	39
449922A07_2010-11-22_GMLE_532	3230	13.8	1.18	2515	228.3	5033	181	7400	22
449922A08_2010-11-22_GMLE_532	3230	13.03	1.18	2371	220.6	5032	180	7399	25
449922A09_2010-11-22_GMLE_532	3230	13.5	1.16	2501	228.6	5034	178	7399	25
449922A10_2010-11-22_GMLE_532	3230	12.65	1.18	2533	240.2	5035	171	7400	30
449922A11_2010-11-22_GMLE_532	3230	14.09	1.17	2497	221.5	5033	177	7400	26
449922A12_2010-11-22_GMLE_532	3230	14.59	1.18	2520	219.4	5035	175	7400	26
450124A03_GMLE_532	3230	9.88	1.18	2403	289.9	5002	204	7360	70
450124A05_GMLE_532	3230	12.79	1.16	2512	282.9	5028	129	7399	80
450124A06_GMLE_532	3230	12.24	1.16	2466	282.5	5028	139	7394	75
450124A08_GMLE_532	3230	10.17	1.15	2475	303.4	5035	160	7399	42
450124A10_GMLE_532	3230	12.22	1.14	2451	270.8	5035	153	7397	51
457035A01_2010-11-18_GMLE_532	3230	11.92	1.18	2633	277	5027	183	7386	40
457035A02_2010-11-18_GMLE_532	3230	8.98	1.18	2841	360.6	5025	158	7389	64
457035A03_2010-11-18_GMLE_532	3230	13.42	1.18	2567	249.6	5031	187	7395	23
457035A04_2010-11-18_GMLE_532	3230	13.36	1.19	2661	257.7	5023	196	7392	25
457035A05_2010-11-18_GMLE_532	3230	14.03	1.16	2632	246	5030	185	7395	26
457035A06_2010-11-18_GMLE_532	3230	13.63	1.16	2662	251.2	5031	187	7396	22
457035A07_2010-11-18_GMLE_532	3230	14.67	1.17	2575	229.4	5032	193	7395	16
457035A08_2010-11-18_GMLE_532	3230	14.43	1.17	2623	235.6	5031	183	7396	26
457035A09_2010-11-18_GMLE_532	3230	15.12	1.17	2595	226.8	5032	190	7395	19
457035A10_2010-11-18_GMLE_532	3230	13.07	1.17	2585	251.1	5031	193	7396	16
457035A11_2010-11-18_GMLE_532	3230	16.48	1.18	2585	213.2	5032	196	7395	13
457035A12_2010-11-18_GMLE_532	3230	15.63	1.16	2606	224.6	5029	197	7396	14
Mean	3230	12.758	1.1747	2554	256.2	5030	167.2	7395	44.63
SE	0	0.274	0.0063	12.4	5.646	2.749	4.948	2.937	8.885

Supplementary Table 7. Somatic SNVs validated by the NimbleGen genotyping platform

sample	chr	start	end	ref	var	geno_N	geno_T	region	gene	function	seq_change
12586	1	66485892	66485892	C	A	C	M	exonic	PDE4B	missense	NM_001037340:p.A133E
12586	1	114255536	114255536	G	T	G	K	exonic	DCLRE1B	missense	NM_022836:p.D267Y
12586	1	246071401	246071401	A	T	A	W	exonic	OR11L1	missense	NM_001001959:p.C141S
12586	1	246752378	246752378	C	A	C	M	exonic	OR2G6	missense	NM_001013355:p.Q270K
12586	2	37141282	37141282	C	A	C	M	exonic	HEATR5B	missense	NM_019024:p.G599C
12586	2	86560909	86560909	A	T	A	W	exonic	KDM3A	missense	NM_018433:p.S809C
12586	2	151922470	151922470	C	T	C	Y	exonic	TNFAIP6	missense	NM_007115:p.T151
12586	2	170079381	170079381	A	G	A	R	exonic	KBTBD10	missense	NM_006063:p.R388G
12586	2	210302827	210302827	C	T	C	Y	exonic	MAP2	missense	NM_002374:p.R1722C
12586	2	215591025	215591025	C	A	C	M	exonic	ABCA12	missense	NM_173076:p.R578S
12586	3	115553043	115553043	C	A	C	M	exonic	ZBTB20	missense	NM_001164346:p.R118L
12586	3	135042829	135042829	G	C	G	S	exonic	RAB6B	nonsense	NM_016577:p.Y93X
12586	4	71290299	71290299	G	T	G	K	UTR3	SMR3B	NA	NA
12586	4	110078433	110078433	G	T	G	K	exonic	COL25A1	missense	NM_032518:p.P230T
12586	4	126589539	126589539	G	A	G	R	exonic	FAT4	missense	NM_024582:p.E2640K
12586	5	13882800	13882800	G	C	G	S	exonic	DNAH5	missense	NM_001369:p.A2088G
12586	5	76206962	76206962	G	T	G	K	exonic	S100Z	missense	NM_130772:p.A8S
12586	5	140690593	140690593	G	T	G	K	exonic	PCDHGA1	missense	NM_031993:p.G53V
12586	6	29177065	29177065	C	G	C	S	intergenic	NA	NA	NA
12586	6	76769378	76769378	T	A	T	W	exonic	IMPG1	missense	NM_001563:p.D423V
12586	7	36160955	36160955	G	A	G	R	exonic	EEPD1	missense	NM_030636:p.R166H
12586	7	150341383	150341383	G	T	G	K	exonic	NOS3	nonsense	NM_000603:p.E1080X
12586	8	41673173	41673173	G	T	G	K	exonic	ANK1	missense	NM_000037:p.T942K
12586	9	119016542	119016542	C	T	C	Y	exonic	ASTN2	missense	NM_014010:p.E311K
12586	10	15295965	15295965	C	A	C	M	exonic	FAM171A1	missense	NM_001010924:p.R543L
12586	10	26495058	26495058	G	T	G	K	exonic	MYO3A	missense	NM_017433:p.C1019F
12586	10	91133979	91133979	C	A	C	M	exonic	IFIT1B	missense	NM_001010987:p.P310H
12586	10	100232503	100232503	G	A	G	R	exonic	HPSE2	missense	NM_001166246:p.T498I
12586	10	102247416	102247416	C	G	C	S	exonic	SEC31B	missense	NM_015490:p.C663S
12586	10	134413041	134413041	G	T	G	K	exonic	INPP5A	missense	NM_005539:p.V255F
12586	11	5418896	5418896	C	G	C	S	exonic	OR51I1	missense	NM_001005288:p.R142P
12586	11	5558910	5558910	T	A	T	W	exonic	OR52B6	missense	NM_001005162:p.H76Q
12586	11	44051592	44051592	A	G	A	R	exonic	ACCS	missense	NM_001127219:p.Q123R
12586	11	60848077	60848077	T	C	T	Y	exonic	DDB1	missense	NM_001923:p.M291V
12586	11	75846878	75846878	G	A	G	R	exonic	C11orf30	missense	NM_020193:p.M83I
12586	11	107711791	107711791	G	T	G	K	exonic	ATM	missense	NM_000051:p.D2721Y
12586	12	50568975	50568975	G	T	G	K	intronic	ANKRD33	NA	NA
12586	12	56252681	56252681	G	T	G	K	exonic	KIF5A	nonsense	NM_004984:p.G541X
12586	12	116210333	116210333	G	T	G	K	exonic	NOS1	missense	NM_000620:p.D352E
12586	14	64329799	64329799	G	A	G	R	exonic	SPTB	missense	NM_001024858:p.R779W
12586	14	85158014	85158014	C	G	C	S	exonic	FLRT2	missense	NM_013231:p.L135V
12586	16	21005814	21005814	T	G	T	K	exonic	DNAH3	missense	NM_017539:p.K912Q
12586	17	7693679	7693679	G	T	G	K	exonic	KDM6B	missense	NM_001080424:p.E1116D
12586	17	23898551	23898551	C	A	C	M	exonic	UNC119	missense	NM_005148:p.S205I
12586	17	44934502	44934502	C	A	C	M	exonic	NGFR	missense	NM_002507:p.L49M
12586	17	45912406	45912406	G	T	G	K	exonic	RSAD1	missense	NM_018346:p.G146W
12586	18	29792266	29792266	G	A	G	R	exonic	NOLA	missense	NM_001198548:p.H391Y
12586	18	32630865	32630865	C	A	C	M	exonic	C18orf10	missense	NM_015476:p.Q268H
12586	20	48629202	48629202	G	T	G	K	exonic	PTPN1	missense	NM_002827:p.D265Y
12586	20	55574055	55574055	C	T	C	Y	exonic	PCK1	missense	NM_002591:p.T553M
12586	X	15522984	15522984	G	C	G	S	exonic	ACE2	missense	NM_021804:p.P84A
12586	X	18930954	18930954	G	T	G	K	exonic	GPR64	missense	NM_001184836:p.L697M
12586	X	78313413	78313413	C	A	C	M	exonic	GPR174	missense	NM_032553:p.P85T
12586	X	125126957	125126957	C	A	C	M	exonic	DCAF12L2	missense	NM_001013628:p.G211V
12586	X	147862768	147862768	G	C	G	S	exonic	AFF2	missense	NM_001169122:p.D1081H
12820	1	181054410	181054410	G	A	G	R	exonic	NPL	missense	NM_001200050:p.R171H
12820	1	194972683	194972683	A	T	A	W	exonic	CFH	missense	NM_000186:p.Q840H
12820	3	148611335	148611335	T	C	T	Y	exonic	ZIC1	missense	NM_003412:p.M249T
12820	5	156525535	156525535	C	T	C	Y	exonic	FAM71B	missense	NM_130899:p.V75I
12820	5	159991937	159991937	G	C	G	S	exonic	ATP10B	missense	NM_025153:p.T466S
12820	7	34854801	34854801	G	T	G	K	splicing	NPSR1	NA	NA
12820	11	17390860	17390860	G	C	G	S	exonic	ABCC8	missense	NM_000352:p.L829V
12820	12	54915666	54915666	C	A	C	M	exonic	SLC39A5	missense	NM_001135195:p.P287Q
12820	17	2213567	2213567	G	T	G	K	exonic	SGSM2	missense	NM_014853:p.R244L
12820	17	7519119	7519119	T	C	T	Y	exonic	TP53	missense	NM_001126117:p.H47R
12820	17	49255984	49255984	C	A	C	M	exonic	KIF2B	missense	NM_032559:p.H197Q
12820	18	21060321	21060321	A	C	A	M	exonic	ZNF521	missense	NM_015461:p.M520R
12820	19	44590416	44590416	C	T	C	Y	exonic	ZFP36	missense	NM_003407:p.P73L
12820	19	47412944	47412944	T	A	T	W	exonic	DEDD2	missense	NM_133328:p.D19V
12820	19	52688201	52688201	C	T	C	Y	exonic	NAPA	missense	NM_003827:p.E155K
12820	19	53614677	53614677	A	G	A	R	exonic	GRIN2D	missense	NM_000836:p.I629V
12820	X	65741067	65741067	G	C	G	S	exonic	EDA2R	nonsense	NM_021783:p.Y91X
12820	X	110442549	110442549	G	T	G	K	exonic	DCX	missense	NM_001195553:p.P340T
12820	X	142424567	142424567	G	T	G	K	exonic	SPANXN3	missense	NM_001009609:p.L57I
12924	1	33843582	33843582	C	G	C	S	exonic	CSMD2	missense	NM_052896:p.G2142A
12924	1	202854551	202854551	G	T	G	K	exonic	LRRN2	missense	NM_006338:p.A398E

12924	2	127900247	127900247	A	T	A	W	exonic	PROC	missense	NM_000312:p.T218S
12924	2	136291413	136291413	C	T	C	Y	exonic	LCT	missense	NM_002299:p.G559S
12924	2	201172637	201172637	G	T	G	K	exonic	AOX1	missense	NM_001159:p.G120V
12924	3	46038131	46038131	G	T	G	K	exonic	XCR1	missense	NM_005283:p.L105I
12924	3	46374872	46374872	G	T	G	K	exonic	CCR2	missense	NM_001123041:p.D284Y
12924	3	47887307	47887307	C	G	C	S	splicing	MAP4	silent	NM_002375:p.R953R
12924	3	137528753	137528753	C	A	C	M	exonic	PCCB	missense	NM_000532:p.A422E
12924	3	166191937	166191937	C	T	C	Y	exonic	SI	missense	NM_001041:p.G1669E
12924	3	198723629	198723629	C	G	C	S	exonic	BDH1	missense	NM_203315:p.R189P
12924	4	126592756	126592756	G	T	G	K	exonic	FAT4	missense	NM_024582:p.S3712I
12924	4	145848821	145848821	C	A	C	M	exonic	HHIP	missense	NM_022475:p.N403K
12924	4	164613809	164613809	C	G	C	S	exonic	TKTL2	missense	NM_032136:p.L176F
12924	5	24523857	24523857	G	C	G	S	exonic	CDH10	missense	NM_001190450:p.A250G
12924	5	152853684	152853684	G	C	G	S	exonic	GRIA1	missense	NM_000827:p.G29A
12924	5	169466096	169466096	G	T	G	K	exonic	FOXI1	missense	NM_144769:p.R186L
12924	6	29473063	29473063	C	A	C	M	exonic	OR12D2	missense	NM_013936:p.T203K
12924	6	33025633	33025633	C	A	C	M	exonic	HLA-DMA	missense	NM_006120:p.A129S
12924	6	43751113	43751113	C	A	C	M	intronic	MRPS18A	NA	NA
12924	6	132980509	132980509	C	A	C	M	exonic	TAAR2	missense	NM_001033080:p.G177W
12924	7	36638166	36638166	C	T	C	Y	splicing	AOAH	NA	NA
12924	7	156219709	156219709	A	G	A	R	exonic	LMBR1	missense	NM_022458:p.L254P
12924	8	19863964	19863964	G	A	G	R	exonic	LPL	missense	NM_000237:p.V461I
12924	8	23051360	23051360	C	A	C	M	exonic	TNFRSF10D	missense	NM_003840:p.D377Y
12924	8	73104745	73104745	A	T	A	W	exonic	TRPA1	missense	NM_007332:p.V961D
12924	8	87311127	87311127	G	T	G	K	exonic	SLC7A13	missense	NM_138817:p.L166M
12924	8	111054016	111054016	C	A	C	M	exonic	KCNV1	missense	NM_014379:p.G213V
12924	8	131931118	131931118	C	G	C	S	exonic	ADCY8	missense	NM_001115:p.C775S
12924	8	134176567	134176567	C	A	C	M	exonic	TG	missense	NM_003235:p.S2446Y
12924	9	98054994	98054994	A	T	A	W	exonic	HSD17B3	missense	NM_000197:p.S99R
12924	9	139578715	139578715	T	A	T	W	exonic	WDR85	missense	NM_138778:p.K314M
12924	10	6546296	6546296	T	A	T	W	exonic	PRKCQ	missense	NM_006257:p.D477V
12924	10	69572807	69572807	C	A	C	M	exonic	MYPN	missense	NM_032578:p.T336K
12924	10	70695406	70695406	C	A	C	M	exonic	HKDC1	missense	NM_025130:p.T811K
12924	10	99351673	99351673	G	A	G	R	exonic	DHDPSL	missense	NM_138413:p.C257Y
12924	10	134874980	134874980	G	T	G	K	exonic	KNDC1	missense	NM_152643:p.A1325S
12924	11	5755928	5755928	C	A	C	M	exonic	OR52N5	missense	NM_001001922:p.L171F
12924	11	13335039	13335039	C	A	C	M	intronic	ARNTL	NA	NA
12924	11	88551511	88551511	A	C	A	M	exonic	TYR	missense	NM_000372:p.T248P
12924	11	92354351	92354351	G	T	G	K	exonic	MTNR1B	missense	NM_005959:p.G105V
12924	11	133618399	133618399	G	C	G	S	splicing	VPS26B	NA	NA
12924	12	50570772	50570772	T	A	T	W	exonic	ANKRD33	missense	NM_001130015:p.Y134N
12924	12	79763775	79763775	T	A	T	W	exonic	LIN7A	missense	NM_004664:p.E116D
12924	12	81775077	81775077	G	A	G	R	exonic	TMTC2	missense	NM_152588:p.G81R
12924	12	119060141	119060141	G	A	G	R	exonic	GCN1L1	missense	NM_006836:p.P2114S
12924	13	25049222	25049222	G	A	G	R	exonic	ATP8A2	missense	NM_016529:p.M576I
12924	13	38348391	38348391	G	T	G	K	exonic	FREM2	missense	NM_207361:p.D2806Y
12924	13	38349381	38349381	G	T	G	K	splicing	FREM2	NA	NA
12924	13	98137885	98137885	C	G	C	S	exonic	SLC15A1	missense	NM_005073:p.C593S
12924	13	100512332	100512332	G	A	G	R	exonic	NALCN	missense	NM_052867:p.R1582C
12924	14	22956241	22956241	G	A	G	R	exonic	MYH7	missense	NM_000257:p.H1494Y
12924	14	69314997	69314997	C	T	C	Y	exonic	SLC10A1	missense	NM_003049:p.C250Y
12924	14	94025772	94025772	T	C	T	Y	exonic	SERPINA12	missense	NM_173850:p.I331V
12924	14	98252409	98252409	G	T	G	K	exonic	C14orf177	missense	NM_182560:p.S43I
12924	16	4768002	4768002	T	A	T	W	splicing	41164	NA	NA
12924	16	54465390	54465390	A	C	A	M	exonic	CES7	missense	NM_001190158:p.V74G
12924	16	56158919	56158919	G	C	G	S	exonic	GPR114	missense	NM_153837:p.A246P
12924	17	1465068	1465068	C	T	C	Y	exonic	SLC43A2	missense	NM_152346:p.A127T
12924	17	15905731	15905731	G	A	G	R	exonic	NCOR1	nonsense	NM_006311:p.Q1864X
12924	18	30652190	30652190	C	G	C	S	exonic	DTNA	missense	NM_001128175:p.C258W
12924	19	6630508	6630508	C	A	C	M	splicing	C3	NA	NA
12924	19	10471422	10471422	G	C	G	S	exonic	KEAP1	missense	NM_012289:p.H96Q
12924	19	12619281	12619281	G	T	G	K	exonic	MAN2B1	missense	NM_000528:p.S932R
12924	19	19232687	19232687	C	T	C	Y	exonic	HAPLN4	missense	NM_023002:p.R140H
12924	19	61394027	61394027	T	A	T	W	exonic	ZSCAN5B	nonsense	NM_001080456:p.K244X
12924	20	2359613	2359613	T	A	T	W	exonic	TGM6	missense	NM_198994:p.V636E
12924	20	24942664	24942664	G	T	G	K	exonic	ACSS1	missense	NM_032501:p.A462E
12924	21	43774123	43774123	C	T	C	Y	exonic	HSF2BP	missense	NM_007031:p.R315H
12924	21	44212356	44212356	C	A	C	M	exonic	AGPAT3	missense	NM_001037553:p.L94I
12924	X	16080634	16080634	C	G	C	S	exonic	GRPR	missense	NM_005314:p.S367C
12924	X	41087939	41087939	G	T	G	K	exonic	DDX3X	nonsense	NM_001193416:p.G229X
12924	X	46954012	46954012	A	T	A	W	exonic	UBA1	missense	NM_003334:p.N662I
12924	X	70389164	70389164	C	A	C	M	splicing	ZMYM3	nonsense	NM_001171163:p.G223X
12924	X	133984040	133984040	C	T	C	Y	exonic	FAM127C	missense	NM_001078173:p.R39Q
12924	X	153388977	153388977	C	A	C	M	exonic	FAM3A	nonsense	NM_001171133:p.E104X
13280	1	31210269	31210269	G	A	G	R	exonic	PUM1	missense	NM_014676:p.S721L
13280	1	42976740	42976740	G	T	G	K	exonic	CLDN19	missense	NM_001185117:p.D109E
13280	1	93374877	93374877	T	C	T	Y	exonic	MTF2	missense	NM_001164392:p.L439S
13280	1	94270130	94270130	C	G	C	S	exonic	ABCA4	missense	NM_000350:p.R1307T
13280	1	153280704	153280704	C	T	C	Y	exonic	DCST1	missense	NM_152494:p.N247Y

13280	1	154831952	154831952	C	T	C	Y	exonic	GPATCH4	missense	NM_015590:p.E269K
13280	1	157180366	157180366	A	G	A	R	exonic	PYHIN1	missense	NM_198929:p.M389V
13280	1	178507237	178507237	G	A	G	R	exonic	LHX4	missense	NM_033343:p.R184Q
13280	2	64175776	64175776	T	C	T	Y	exonic	PEL1	missense	NM_020651:p.E274G
13280	2	74609738	74609738	G	T	G	K	intronic	AUP1	NA	NA
13280	2	98821013	98821013	C	G	C	S	splicing	C2orf55	NA	NA
13280	2	105258550	105258550	G	C	G	S	exonic	TGFBRAP1	missense	NM_001142621:p.R522G
13280	3	15617957	15617957	G	T	G	K	exonic	HACL1	missense	NM_012260:p.F6L
13280	3	32907330	32907330	C	G	C	S	exonic	TRIM71	missense	NM_001039111:p.Q544E
13280	3	128823195	128823195	G	T	G	K	splicing	MCM2	NA	NA
13280	4	39085349	39085349	G	A	G	R	exonic	KLB	missense	NM_175737:p.D129N
13280	4	119956108	119956108	G	T	G	K	exonic	SEC24D	missense	NM_014822:p.Q207K
13280	4	189161599	189161599	G	T	G	K	exonic	ZFP42	missense	NM_174900:p.R215L
13280	5	878334	878334	T	A	T	W	exonic	ZDHHC11	missense	NM_024786:p.K323M
13280	5	41417931	41417931	T	C	T	Y	exonic	PLCXD3	missense	NM_001005473:p.Y189C
13280	5	121215873	121215873	G	T	G	K	exonic	FTMT	missense	NM_177478:p.V106L
13280	5	141013735	141013735	G	C	G	S	exonic	ARAP3	missense	NM_022481:p.T1534S
13280	6	90430930	90430930	G	T	G	K	exonic	MDN1	missense	NM_014611:p.Q4745K
13280	7	75797441	75797441	G	T	G	K	exonic	YWHAG	missense	NM_012479:p.L45M
13280	7	117219239	117219239	G	T	G	K	exonic	CTTNBP2	missense	NM_033427:p.A416D
13280	7	123304420	123304420	C	T	C	Y	exonic	HYAL4	missense	NM_012269:p.A474V
13280	8	26777838	26777838	G	A	G	R	exonic	ADRA1A	missense	NM_033303:p.A189V
13280	8	124264458	124264458	G	A	G	R	exonic	FAM83A	missense	NM_032899:p.D61N
13280	9	135434062	135434062	G	T	G	K	exonic	FAM163B	missense	NM_001080515:p.G135D
13280	9	137782699	137782699	G	A	G	R	exonic	KCNT1	missense	NM_020822:p.G142D
13280	10	45227665	45227665	G	C	G	S	exonic	ALOX5	missense	NM_000698:p.G151A
13280	11	6189563	6189563	C	A	C	M	exonic	FAM160A2	nonsense	NM_032127:p.G904X
13280	11	14471812	14471812	T	G	T	K	exonic	COPB1	missense	NM_016451:p.H148P
13280	11	33265498	33265498	C	G	C	S	exonic	HIPK3	missense	NM_005734:p.A321G
13280	11	85122763	85122763	A	T	A	W	exonic	SYTL2	missense	NM_001162953:p.N419K
13280	11	123946143	123946143	T	A	T	W	exonic	OR8A1	silent	NM_001005194:p.G323G
13280	12	51934113	51934113	C	T	C	Y	exonic	MFSD5	silent	NM_001170790:p.F516F
13280	12	100113060	100113060	C	G	C	S	exonic	SLC5A8	missense	NM_145913:p.D161H
13280	13	38495234	38495234	G	A	G	R	exonic	C13orf23	missense	NM_170719:p.P178S
13280	13	114028535	114028535	A	G	A	R	exonic	CD16	missense	NM_003903:p.N279S
13280	14	24045588	24045588	A	T	A	W	exonic	CMA1	missense	NM_001836:p.L91H
13280	15	71676430	71676430	A	G	A	R	exonic	NPTN	missense	NM_001161363:p.I142T
13280	16	20399439	20399439	G	T	G	K	exonic	ACSM2A	missense	NM_001010845:p.W442L
13280	17	26600139	26600139	C	G	C	S	exonic	NF1	nonsense	NM_001042492:p.S1329X
13280	17	70461845	70461845	C	A	C	M	exonic	C17orf28	missense	NM_030630:p.S616I
13280	17	71459246	71459246	C	G	C	S	exonic	ACOX1	missense	NM_001185039:p.E280Q
13280	18	27871231	27871231	G	C	G	S	splicing	RNF125	NA	NA
13280	19	16868069	16868069	A	C	A	M	exonic	CPAMD8	missense	NM_015692:p.L1829V
13280	19	40492838	40492838	C	A	C	M	exonic	MAG	missense	NM_080600:p.R485S
13280	19	42817788	42817788	T	A	T	W	exonic	ZFP30	missense	NM_014898:p.E498D
13280	19	50255515	50255515	G	C	G	S	exonic	CLASRP	missense	NM_007056:p.E247Q
13280	19	53034920	53034920	A	T	A	W	exonic	CRX	missense	NM_000554:p.S262C
13280	19	63144458	63144458	C	G	C	S	exonic	ZNF256	missense	NM_005773:p.Q510H
13280	19	63464456	63464456	G	C	G	S	exonic	ZNF544	missense	NM_014480:p.Q224H
13280	22	22510575	22510575	G	A	G	R	exonic	DERL3	silent	NM_001135751:p.F97F
13280	22	29661039	29661039	G	A	G	R	exonic	MORC2	missense	NM_014941:p.P579L
13280	X	12537853	12537853	A	G	A	R	exonic	FRMPD4	missense	NM_014728:p.D84G
13280	X	47372558	47372558	G	C	G	S	exonic	CFP	missense	NM_002621:p.S97C
13280	X	48936733	48936733	C	A	C	M	exonic	SYP	missense	NM_003179:p.Q185H
13280	X	53240957	53240957	C	T	C	Y	exonic	KDM5C	missense	NM_001146702:p.D1040N
13280	X	55050120	55050120	C	G	C	S	exonic	APEX2	missense	NM_014481:p.Q362E
13280	X	100012386	100012386	T	C	T	Y	exonic	NOX1	missense	NM_013955:p.Y40C
13280	X	117584044	117584044	T	G	T	K	exonic	DOCK11	missense	NM_144658:p.Y248D
13280	X	117584105	117584105	A	T	A	W	exonic	DOCK11	missense	NM_144658:p.K268I
13394	1	3309278	3309278	G	T	G	K	exonic	PRDM16	missense	NM_199454:p.R247L
13394	1	33962809	33962809	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.A887S
13394	1	86736972	86736972	C	A	C	M	exonic	CLCA1	missense	NM_001285:p.P748H
13394	1	159309233	159309233	C	T	C	Y	exonic	PVRL4	missense	NM_030916:p.E459K
13394	1	174935263	174935263	G	T	G	K	exonic	PAPPA2	missense	NM_020318:p.V1051L
13394	1	196163523	196163523	G	T	G	K	exonic	LHX9	missense	NM_001014434:p.G296C
13394	3	66532150	66532150	A	G	A	R	exonic	LRIG1	missense	NM_015541:p.L389P
13394	5	37184109	37184109	T	C	T	Y	exonic	C5orf42	missense	NM_023073:p.I2744V
13394	6	112496248	112496248	T	C	T	Y	exonic	WISP3	missense	NM_003880:p.L246P
13394	7	34061306	34061306	A	G	A	R	exonic	BMPER	missense	NM_133468:p.T265A
13394	9	111938576	111938576	G	T	G	K	exonic	AKAP2	nonsense	NM_007203:p.E311X
13394	10	18294550	18294550	A	G	A	R	exonic	SLC39A12	missense	NM_152725:p.N226D
13394	11	5211994	5211994	G	T	G	K	exonic	HBD	missense	NM_000519:p.Q40K
13394	11	10439826	10439826	G	T	G	K	exonic	AMPD3	nonsense	NM_000480:p.E71X
13394	11	128826458	128826458	C	A	C	M	exonic	BARX2	missense	NM_003658:p.P264Q
13394	15	71963581	71963581	G	C	G	S	exonic	TBC1D21	missense	NM_153356:p.K103N
13394	15	83206930	83206930	G	A	G	R	exonic	ALPK3	missense	NM_020778:p.C1599Y
13394	15	83207845	83207845	G	T	G	K	exonic	ALPK3	missense	NM_020778:p.R1692L
13394	16	80590705	80590705	G	C	G	S	exonic	SDR42E1	missense	NM_145168:p.H232D
13394	17	39687558	39687558	T	C	T	Y	splicing	SLC4A1	NA	NA



13394	22	37554250	37554250	C	T	C	Y	exonic	NPTXR	missense	NM_014293:p.E280K
13542	1	245836265	245836265	A	T	A	W	exonic	OR2G3	missense	NM_001001914:p.Y252F
13542	3	141889967	141889967	C	A	C	M	exonic	TRIM42	missense	NM_152616:p.Q585K
13542	7	100017928	100017928	C	G	C	S	exonic	LRCH4	missense	NM_002319:p.R104T
13542	8	142223524	142223524	C	G	C	S	exonic	DENND3	missense	NM_014957:p.P160R
13542	9	129750293	129750293	G	A	G	R	exonic	FAM102A	missense	NM_203305:p.P23L
13542	15	20513937	20513937	A	T	A	W	exonic	CYFIP1	missense	NM_001033028:p.H308L
13542	15	75258263	75258263	C	G	C	S	exonic	PEAK1	missense	NM_024776:p.E1021Q
13542	16	66423859	66423859	C	A	C	M	splicing	CENPT	missense	NM_025082:p.R67S
13542	22	35290384	35290384	A	T	A	W	exonic	CACNG2	missense	NM_006078:p.L311H
13542	X	65158919	65158919	C	T	C	Y	exonic	VSIG4	missense	NM_001100431:p.A277T
13542	X	135233058	135233058	C	A	C	M	exonic	GPR112	missense	NM_153834:p.R176S
15145	3	39144894	39144894	C	T	C	Y	exonic	TTC21A	missense	NM_145755:p.H538Y
15145	11	65376964	65376964	A	C	A	M	exonic	SNX32	missense	NM_152760:p.N373H
15145	16	16116129	16116129	G	A	G	R	exonic	ABCC1	missense	NM_004996:p.A1029T
15145	17	39444958	39444958	G	A	G	R	exonic	TMEM101	missense	NM_032376:p.P213L
15145	17	45630824	45630824	G	A	G	R	exonic	COL1A1	missense	NM_000088:p.S171L
15145	18	33399469	33399469	G	A	G	R	exonic	CELF4	missense	NM_020180:p.T45I
15145	19	10461447	10461447	G	A	G	R	exonic	KEAP1	missense	NM_012289:p.R470C
15145	19	19651295	19651295	A	G	A	R	exonic	ZNF101	missense	NM_033204:p.K166R
15145	X	49029868	49029868	A	C	A	M	exonic	PPP1R3F	missense	NM_001184745:p.E245A
15145	X	109581480	109581480	G	C	G	S	exonic	RGAG1	missense	NM_020769:p.V327L
15145	X	152932908	152932908	C	T	C	Y	exonic	IRAK1	missense	NM_001569:p.E440K
15145	M	15490	15490	A	G	A	R	intergenic	NA	NA	NA
15822	17	7623316	7623316	A	C	A	M	exonic	DNAH2	missense	NM_020877:p.N1858H
15858	1	160234717	160234717	T	G	T	K	exonic	LOFML2B	missense	NM_015441:p.E332D
15858	3	141764424	141764424	G	T	G	K	exonic	CLSTN2	missense	NM_022131:p.R765L
15858	12	48635477	48635477	C	A	C	M	exonic	AQP2	missense	NM_000486:p.A212D
15858	12	123523486	123523486	C	T	C	Y	exonic	NCOR2	missense	NM_001077261:p.V186I
15858	19	35626600	35626600	C	A	C	M	exonic	ZNF536	missense	NM_014717:p.N97K
16246	1	20121760	20121760	T	C	T	Y	exonic	PLA2G2E	missense	NM_014589:p.Y39C
16246	1	145847184	145847184	C	A	C	M	exonic	GJA8	missense	NM_005267:p.L160I
16246	1	156873075	156873075	C	A	C	M	exonic	SPTA1	missense	NM_003126:p.A1764S
16246	1	210865913	210865913	C	G	C	S	exonic	FAM71A	missense	NM_153606:p.S357R
16246	1	246125629	246125629	G	T	G	K	exonic	OR2W3	missense	NM_001001957:p.V40L
16246	3	1418203	1418203	A	T	A	W	exonic	CNTN6	missense	NM_014461:p.N931Y
16246	4	119957907	119957907	C	A	C	M	exonic	SEC24D	missense	NM_014822:p.Q119H
16246	5	33719744	33719744	A	T	A	W	exonic	ADAMTS12	missense	NM_030955:p.Y270N
16246	5	156522864	156522864	C	A	C	M	exonic	FAM71B	missense	NM_130899:p.M330I
16246	7	92663108	92663108	A	G	A	R	exonic	HEPACAM2	missense	NM_198151:p.V403A
16246	9	17399373	17399373	G	T	G	K	exonic	CNTLN	nonsense	NM_017738:p.G900X
16246	9	35652529	35652529	G	A	G	R	exonic	C9orf100	missense	NM_032818:p.P295S
16246	9	111745274	111745274	G	T	G	K	exonic	PALM2	missense	NM_001037293:p.K296N
16246	10	118218695	118218695	C	G	C	S	exonic	PNLIPRP3	missense	NM_001011709:p.C312W
16246	11	77090162	77090162	T	A	T	W	exonic	RSF1	missense	NM_016578:p.K587M
16246	12	21856355	21856355	T	A	T	W	exonic	ABCC9	missense	NM_020298:p.K1333I
16246	13	47839630	47839630	G	T	G	K	splicing	RB1	NA	NA
16246	14	19459043	19459043	G	C	G	S	exonic	OR4K5	missense	NM_001005483:p.M146I
16246	14	21172217	21172217	C	G	C	S	exonic	OR10G2	missense	NM_001005466:p.V208L
16246	20	47563101	47563101	G	T	G	K	exonic	PTGIS	missense	NM_000961:p.L377M
16246	21	46376727	46376727	C	A	C	M	exonic	COL6A2	missense	NM_001849:p.R965S
16246	X	91760002	91760002	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.A1141S
16246	X	108583482	108583482	C	A	C	M	exonic	GUCY2F	missense	NM_001522:p.R432L
16246	M	9622	9622	G	C	G	S	intergenic	NA	NA	NA
16461	1	12339107	12339107	G	T	G	K	exonic	VPS13D	nonsense	NM_018156:p.E3288X
16461	1	16134669	16134669	C	A	C	M	exonic	SPEN	missense	NM_015001:p.A3116E
16461	1	33771372	33771372	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.G3202W
16461	1	44194878	44194878	T	C	T	Y	exonic	IPO13	missense	NM_014652:p.M341T
16461	1	64416573	64416573	G	A	G	R	exonic	ROR1	missense	NM_005012:p.S754N
16461	1	148187543	148187543	T	A	T	W	exonic	OTUD7B	missense	NM_020205:p.K397M
16461	1	149662617	149662617	C	G	C	S	exonic	POGZ	missense	NM_001194938:p.D458H
16461	1	156418740	156418740	T	A	T	W	intronic	CD1D	NA	NA
16461	1	156936697	156936697	C	A	C	M	exonic	OR6K2	missense	NM_001005279:p.A124S
16461	1	181339370	181339370	G	T	G	K	exonic	LAMC1	missense	NM_002293:p.D235Y
16461	1	198851269	198851269	T	C	T	Y	exonic	KIF14	missense	NM_014875:p.I402V
16461	1	198853747	198853747	T	A	T	W	exonic	KIF14	missense	NM_014875:p.K243M
16461	1	212237508	212237508	A	G	A	R	exonic	PROX1	missense	NM_002763:p.H336R
16461	1	234713460	234713460	G	C	G	S	UTR3	EDARADD	NA	NA
16461	1	245902419	245902419	G	A	G	R	exonic	OR13G1	missense	NM_001005487:p.A183V
16461	2	9493915	9493915	G	T	G	K	exonic	CPSF3	missense	NM_016207:p.R245M
16461	2	31032074	31032074	C	T	C	Y	exonic	GALNT14	missense	NM_024572:p.A190T
16461	2	71759850	71759850	G	C	G	S	exonic	DYSF	missense	NM_001130987:p.E2014Q
16461	2	86685770	86685770	T	C	T	Y	exonic	RNF103	missense	NM_005667:p.I255M
16461	2	88206980	88206980	G	C	G	S	exonic	FABP1	missense	NM_001443:p.L24V
16461	2	99990278	99990278	G	T	G	K	exonic	AF3	missense	NM_001025108:p.T109N
16461	2	127978729	127978729	C	G	C	S	splicing	IWS1	NA	NA
16461	2	190041483	190041483	C	G	C	S	exonic	WDR75	missense	NM_032168:p.L556V
16461	2	196892456	196892456	T	A	T	W	exonic	HECW2	missense	NM_020760:p.E468V
16461	2	220079305	220079305	C	T	C	Y	exonic	GMPPA	missense	NM_205847:p.P360L

16461	3	9388215	9388215	G	A	G	R	exonic	THUMPD3	missense	NM_015453:p.V268M
16461	3	47274025	47274025	C	T	C	Y	exonic	KIF9	missense	NM_022342:p.M337I
16461	3	62331016	62331016	G	T	G	K	exonic	FEZF2	missense	NM_018008:p.Q388K
16461	3	120106213	120106213	C	A	C	M	exonic	IGSF11	nonsense	NM_152538:p.E275X
16461	3	120617611	120617611	C	A	C	M	exonic	ARHGAP31	missense	NM_020754:p.T1382K
16461	3	132776642	132776642	A	C	A	M	exonic	CPNE4	missense	NM_130808:p.L297W
16461	3	197871164	197871164	A	T	A	W	exonic	LRR33	missense	NM_198565:p.S85C
16461	5	11045745	11045745	G	C	G	S	exonic	CTNND2	missense	NM_001332:p.I1043M
16461	5	52251931	52251931	G	C	G	S	exonic	ITGA1	missense	NM_181501:p.R723P
16461	5	138735759	138735759	G	C	G	S	exonic	SLC23A1	nonsense	NM_152685:p.Y548X
16461	5	140495585	140495585	C	A	C	M	exonic	PCDHB5	missense	NM_015669:p.H129N
16461	5	140543660	140543660	G	C	G	S	exonic	PCDHB16	missense	NM_020957:p.A448P
16461	5	147908544	147908544	G	A	G	R	exonic	HTR4	missense	NM_001040173:p.A78V
16461	6	24564784	24564784	C	A	C	M	exonic	GPLD1	missense	NM_001503:p.G357C
16461	6	26199257	26199257	C	T	C	Y	exonic	HFE	missense	NM_139006:p.H96Y
16461	6	29749119	29749119	G	C	G	S	exonic	ZFP57	missense	NM_001109809:p.R250G
16461	6	32038283	32038283	G	T	G	K	exonic	SKIV2L	missense	NM_006929:p.G385W
16461	6	41992505	41992505	G	C	G	S	exonic	MED20	missense	NM_004275:p.S55R
16461	6	50894630	50894630	G	C	G	S	exonic	TFAP2B	missense	NM_003221:p.E23Q
16461	6	126283848	126283848	G	T	G	K	exonic	NCOA7	nonsense	NM_001199621:p.E656X
16461	6	143134953	143134953	C	A	C	M	exonic	HIVEP2	missense	NM_006734:p.Q872H
16461	6	159380240	159380240	T	A	T	W	exonic	TAGAP	missense	NM_152133:p.N48I
16461	7	7496765	7496765	C	G	C	S	exonic	COL28A1	missense	NM_001037763:p.G355A
16461	7	45716690	45716690	G	C	G	S	exonic	ADCY1	missense	NM_021116:p.A991P
16461	7	51063727	51063727	C	A	C	M	exonic	COBL	missense	NM_015198:p.V854F
16461	7	131563655	131563655	T	A	T	W	exonic	PLXNA4	missense	NM_020911:p.Y573F
16461	8	1795734	1795734	G	C	G	S	exonic	ARHGEF10	missense	NM_014629:p.C153S
16461	8	24830935	24830935	G	C	G	S	exonic	NEFM	missense	NM_005382:p.E554D
16461	8	86229469	86229469	A	T	A	W	exonic	LRRCC1	nonsense	NM_033402:p.R564X
16461	8	87626140	87626140	G	T	G	K	exonic	CPNE3	missense	NM_003909:p.Q230H
16461	8	91051864	91051864	C	G	C	S	exonic	NBN	missense	NM_002485:p.G267A
16461	8	139784745	139784745	C	A	C	M	exonic	COL22A1	missense	NM_152888:p.G849W
16461	8	139902637	139902637	A	T	A	W	exonic	COL22A1	missense	NM_152888:p.I390N
16461	9	34600809	34600809	C	A	C	M	exonic	C9orf23	missense	NM_148178:p.R162L
16461	9	100870706	100870706	G	T	G	K	exonic	COL15A1	missense	NM_001855:p.G1296C
16461	9	131937197	131937197	G	T	G	K	exonic	GPR107	missense	NM_001136558:p.Q564H
16461	9	132950840	132950840	C	A	C	M	exonic	LAMC3	missense	NM_006059:p.A1380E
16461	10	35882090	35882090	G	T	G	K	exonic	CCNY	missense	NM_181698:p.Q185H
16461	10	54197985	54197985	C	G	C	S	exonic	MBL2	missense	NM_000242:p.C225S
16461	10	60219055	60219055	G	T	G	K	exonic	BICC1	nonsense	NM_001080512:p.E210X
16461	10	115517207	115517207	A	T	A	W	exonic	C10orf81	missense	NM_001193434:p.Y25F
16461	10	116082968	116082968	A	G	A	R	splicing	AFAP1L2	NA	NA
16461	10	116909801	116909801	T	A	T	W	exonic	ATRNL1	nonsense	NM_207303:p.C280X
16461	10	129795058	129795058	G	C	G	S	exonic	MK167	missense	NM_002417:p.S1679C
16461	10	134972884	134972884	G	A	G	R	splicing	ZNF511	missense	NM_145806:p.D52N
16461	11	11934293	11934293	G	T	G	K	exonic	USP47	missense	NM_017944:p.D1287Y
16461	11	36571231	36571231	G	T	G	K	exonic	RAG2	missense	NM_000536:p.T355N
16461	11	47729390	47729390	T	G	T	K	exonic	RBNP4	missense	NM_015308:p.E222D
16461	11	49959805	49959805	G	C	G	S	exonic	OR4C12	missense	NM_001005270:p.A270G
16461	11	58031411	58031411	G	C	G	S	exonic	OR5B21	missense	NM_001005218:p.F248L
16461	11	63842333	63842333	C	G	C	S	exonic	PRDX5	missense	NM_181652:p.Q24E
16461	11	64426087	64426087	T	C	T	Y	exonic	ATG2A	missense	NM_015104:p.R1348G
16461	11	66015639	66015639	C	G	C	S	exonic	DPP3	missense	NM_130443:p.F299L
16461	11	123353389	123353389	G	T	G	K	exonic	OR10S1	missense	NM_001004474:p.H74N
16461	12	12868204	12868204	G	C	G	S	exonic	DDX47	missense	NM_016355:p.G295A
16461	12	51196747	51196747	C	A	C	M	exonic	KRT5	missense	NM_000424:p.K460N
16461	12	61830648	61830648	G	T	G	K	exonic	AVPR1A	missense	NM_000706:p.T79K
16461	12	119919728	119919728	C	A	C	M	exonic	HNFB1A	missense	NM_000545:p.Q460K
16461	12	131891384	131891384	C	A	C	M	exonic	GOLGA3	missense	NM_005895:p.D530Y
16461	14	69514388	69514388	G	A	G	R	splicing	SMOC1	missense	NM_022137:p.G160D
16461	14	74671438	74671438	T	G	T	K	exonic	TMED10	missense	NM_006827:p.Y188S
16461	15	26184426	26184426	T	A	T	W	exonic	HERC2	missense	NM_004667:p.K601N
16461	15	71965957	71965957	G	C	G	S	exonic	TBC1D21	missense	NM_153356:p.C243S
16461	16	21180114	21180114	G	C	G	S	exonic	CRYM	missense	NM_001888:p.P281R
16461	16	24280320	24280320	G	T	G	K	exonic	CACNG3	missense	NM_006539:p.V195F
16461	16	24487776	24487776	G	T	G	K	exonic	RBBP6	missense	NM_018703:p.R721L
16461	16	30981095	30981095	T	A	T	W	exonic	ZNF668	missense	NM_001172669:p.T242S
16461	16	46680023	46680023	G	T	G	K	exonic	ABCC12	missense	NM_033226:p.L1137I
16461	16	60318499	60318499	T	A	T	W	splicing	CDH8	missense	NM_001796:p.Q512H
16461	17	6369402	6369402	T	C	T	Y	exonic	PITPNM3	missense	NM_031220:p.Q75R
16461	17	7519186	7519186	C	A	C	M	exonic	TP53	missense	NM_001126117:p.V25F
16461	17	11534021	11534021	G	T	G	K	exonic	DNAH9	missense	NM_001372:p.W1386L
16461	17	23991079	23991079	T	C	T	Y	exonic	KIAA0100	missense	NM_014680:p.M328V
16461	17	24033061	24033061	G	T	G	K	exonic	SUPT6H	missense	NM_003170:p.R511S
16461	17	24034432	24034432	A	T	A	W	exonic	SUPT6H	missense	NM_003170:p.Y633F
16461	17	46178309	46178309	G	T	G	K	exonic	LUC7L3	missense	NM_006107:p.C308F
16461	17	53710397	53710397	C	T	C	Y	exonic	MPO	missense	NM_000250:p.A332T
16461	17	57023200	57023200	C	A	C	M	exonic	NACA2	missense	NM_199290:p.D42Y
16461	17	59303650	59303650	C	A	C	M	exonic	CSH2	missense	NM_022644:p.V159F

16461	18	32552540	32552540	G	C	G	S	exonic	FHOD3	missense	NM_025135:p.R919P
16461	18	45820604	45820604	C	G	C	S	exonic	MYO5B	missense	NM_001080467:p.D73H
16461	18	57318660	57318660	G	T	G	K	exonic	CDH20	missense	NM_031891:p.R202S
16461	19	4122691	4122691	G	T	G	K	exonic	CREB3L3	missense	NM_032607:p.V371L
16461	19	11005877	11005877	G	A	G	R	splicing	SMARCA4	NA	NA
16461	19	40445307	40445307	T	G	T	K	exonic	LSR	missense	NM_205834:p.V265G
16461	19	41024992	41024992	A	C	A	M	exonic	NPH51	missense	NM_004646:p.L846R
16461	19	47258826	47258826	C	A	C	M	exonic	GRIK5	missense	NM_002088:p.G89V
16461	19	52277392	52277392	C	G	C	S	splicing	ZC3H4	missense	NM_015168:p.G407R
16461	19	63542369	63542369	G	C	G	S	exonic	ZSCAN22	missense	NM_181846:p.Q447H
16461	20	2589617	2589617	T	C	T	Y	splicing	IDH3B	NA	NA
16461	20	43315658	43315658	G	T	G	K	exonic	SLPI	nonsense	NM_003064:p.C72X
16461	21	39756230	39756230	G	T	G	K	exonic	SH3BGR	missense	NM_007341:p.K98N
16461	22	35601683	35601683	G	A	G	R	exonic	NCF4	missense	NM_000631:p.V224M
16461	22	38240008	38240008	G	T	G	K	exonic	SMCR7L	missense	NM_019008:p.A376S
16461	X	27908371	27908371	T	A	T	W	exonic	DCAF8L1	missense	NM_001017930:p.K334N
16461	X	48342977	48342977	G	T	G	K	exonic	WDR13	missense	NM_017883:p.D151Y
16461	X	50356485	50356485	G	T	G	K	exonic	SHROOM4	missense	NM_020717:p.Q1478K
16461	X	77799712	77799712	C	A	C	M	exonic	ZCCHC5	nonsense	NM_152694:p.G288X
16461	X	91020657	91020657	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.W921L
16461	X	118655087	118655087	T	A	T	W	exonic	41158	missense	NM_015129:p.E296V
16617	1	41821668	41821668	T	G	T	K	exonic	HIVEP3	missense	NM_001127714:p.E463A
16617	1	156565858	156565858	T	A	T	W	exonic	CD1B	missense	NM_001764:p.D271V
16617	1	156881950	156881950	C	T	C	Y	exonic	SPTA1	missense	NM_003126:p.E1319K
16617	2	27276840	27276840	A	C	A	M	exonic	SLC5A6	missense	NM_021095:p.S626A
16617	6	30274486	30274486	C	A	C	M	exonic	TRIM26	missense	NM_003449:p.R125L
16617	6	31791140	31791140	T	C	T	Y	exonic	LY6G6D	missense	NM_021246:p.L10P
16617	9	89687793	89687793	G	T	G	K	exonic	C9orf79	missense	NM_178828:p.W56L
16617	10	127833864	127833864	T	A	T	W	splicing	ADAM12	missense	NM_021641:p.E87D
16617	11	5419293	5419293	G	T	G	K	exonic	OR5111	missense	NM_001005288:p.Q10K
16617	11	123316376	123316376	G	C	G	S	exonic	OR4D5	missense	NM_001001965:p.M281I
16617	12	102646776	102646776	A	C	A	M	exonic	STAB2	missense	NM_017564:p.Y1652S
16617	17	5300126	5300126	T	C	T	Y	exonic	DHX33	missense	NM_020162:p.D317G
16617	17	16796599	16796599	C	T	C	Y	exonic	TNFRSF13B	missense	NM_012452:p.V29M
16617	20	50202217	50202217	C	A	C	M	exonic	ZFP64	missense	NM_018197:p.A641S
16617	X	78102884	78102884	A	G	A	R	exonic	P2RY10	missense	NM_014499:p.I71V
16989	1	245655305	245655305	C	A	C	M	exonic	NLRP3	missense	NM_001079821:p.A646D
18472	7	149617558	149617558	T	C	T	Y	exonic	ACTR3C	missense	NM_001164458:p.I71V
7313	1	246410259	246410259	G	C	G	S	exonic	OR2M2	missense	NM_001004688:p.V117L
7313	3	109958594	109958594	A	G	A	R	splicing	RETNLB	NA	NA
7313	3	110305434	110305434	C	A	C	M	exonic	MORC1	missense	NM_014429:p.G59W
7313	3	120130116	120130116	G	C	G	S	exonic	IGSF11	nonsense	NM_152538:p.Y117X
7313	3	130730373	130730373	A	T	A	W	exonic	RHO	missense	NM_000539:p.Q36L
7313	7	80128362	80128362	A	T	A	W	exonic	CD36	missense	NM_000072:p.N110I
7313	7	95004926	95004926	C	G	C	S	exonic	ASB4	missense	NM_016116:p.C400W
7313	7	99809207	99809207	A	G	A	R	UTR5	PILRA	NA	NA
7313	7	107204213	107204213	C	T	C	Y	exonic	SLC26A3	missense	NM_000111:p.E533K
7313	7	110550783	110550783	G	T	G	K	exonic	LRRN3	missense	NM_001099660:p.S240I
7313	7	124191326	124191326	C	A	C	M	exonic	GPR37	missense	NM_005302:p.C314F
7313	7	125960819	125960819	C	A	C	M	exonic	GRM8	missense	NM_001127323:p.G618V
7313	7	137451937	137451937	G	T	G	K	exonic	AKR1D1	missense	NM_001190906:p.D283Y
7313	10	102728963	102728963	G	A	G	R	exonic	SEMA4G	missense	NM_017893:p.A310T
7313	11	4826819	4826819	G	A	G	R	exonic	OR51S1	missense	NM_001004758:p.P66S
7313	11	18209665	18209665	G	A	G	R	exonic	SAA2-SAA4	missense	NM_001199744:p.P196L
7313	11	65407278	65407278	T	A	T	W	exonic	CTSW	missense	NM_001335:p.V276E
7313	11	103413013	103413013	C	A	C	M	exonic	DDI1	missense	NM_001001711:p.P85T
7313	14	19458885	19458885	T	A	T	W	exonic	OR4K5	missense	NM_001005483:p.F94I
7313	15	32142850	32142850	T	A	T	W	exonic	CHRM5	missense	NM_012125:p.C214S
7313	20	8718179	8718179	T	C	T	Y	exonic	PLCB1	missense	NM_182734:p.M1098T
7313	X	48921364	48921364	G	A	G	R	exonic	PRICKLE3	missense	NM_006150:p.R293C
7313	M	11752	11752	A	G	A	R	intergenic	NA	NA	NA
7996	3	152648252	152648252	C	T	C	Y	exonic	IGSF10	missense	NM_178822:p.R736H
7996	17	7519188	7519188	C	G	C	S	exonic	TP53	missense	NM_001126117:p.R24P
7996	19	4122710	4122710	C	A	C	M	exonic	CREB3L3	missense	NM_032607:p.P377Q
LU-1991	1	148165212	148165212	G	C	G	S	exonic	SF3B4	missense	NM_005850:p.T129S
LU-1991	1	153416390	153416390	G	A	G	R	splicing	TRIM46	silent	NM_025058:p.E303E
LU-1991	1	156565843	156565843	C	G	C	S	exonic	CD1B	missense	NM_001764:p.G276A
LU-1991	1	201404786	201404786	C	T	C	Y	exonic	MYBPH	missense	NM_004997:p.A430T
LU-1991	1	212237806	212237806	G	C	G	S	exonic	PROX1	missense	NM_002763:p.Q435H
LU-1991	1	225240900	225240900	C	G	C	S	exonic	ADCK3	missense	NM_020247:p.L595V
LU-1991	1	234220832	234220832	C	A	C	M	exonic	NID1	missense	NM_002508:p.A969S
LU-1991	2	29793994	29793994	C	A	C	M	exonic	ALK	missense	NM_004304:p.W247C
LU-1991	2	105224759	105224759	C	A	C	M	exonic	GPR45	missense	NM_007227:p.N4K
LU-1991	2	167815498	167815498	G	T	G	K	exonic	XIRP2	missense	NM_152381:p.R3117L
LU-1991	2	185511592	185511592	C	A	C	M	exonic	ZNF804A	missense	NM_194250:p.P1075Q
LU-1991	2	208197280	208197280	G	A	G	R	exonic	FAM119A	missense	NM_001127395:p.A22V
LU-1991	2	210350255	210350255	G	T	G	K	exonic	UNC80	missense	NM_182587:p.E109D
LU-1991	2	233118618	233118618	C	A	C	M	exonic	CHRNA	missense	NM_005199:p.P501Q
LU-1991	3	38238145	38238145	G	T	G	K	exonic	OXSRI	missense	NM_005109:p.G188V

LU-1991 3	39203099	39203099	G	T	G	K	exonic	XIRP1	missense	NM_001198621:p.P948T
LU-1991 3	43364226	43364226	G	A	G	R	exonic	SNRK	missense	NM_017719:p.E491K
LU-1991 3	48483609	48483609	C	T	C	Y	exonic	TREX1	missense	NM_016381:p.T239I
LU-1991 3	141605301	141605301	C	G	C	S	exonic	CLSTN2	missense	NM_022131:p.Q125E
LU-1991 4	126631264	126631264	C	G	C	S	exonic	FAT4	missense	NM_024582:p.P4613A
LU-1991 5	19519245	19519245	C	A	C	M	exonic	CDH18	missense	NM_001167667:p.M565I
LU-1991 6	26216075	26216075	C	T	C	Y	exonic	HIST1H1T	missense	NM_005323:p.D76N
LU-1991 6	64474055	64474055	C	T	C	Y	exonic	PHF3	missense	NM_015153:p.T1182M
LU-1991 7	20664717	20664717	G	A	G	R	exonic	ABCB5	missense	NM_001163993:p.A89T
LU-1991 7	142335346	142335346	G	C	G	S	exonic	TRPV5	missense	NM_019841:p.L290V
LU-1991 9	139261954	139261954	G	C	G	S	exonic	FAM166A	missense	NM_001001710:p.P12R
LU-1991 10	33514567	33514567	C	T	C	Y	exonic	NRP1	missense	NM_003873:p.C809Y
LU-1991 10	49985924	49985924	C	G	C	S	exonic	C10orf72	missense	NM_144984:p.V60L
LU-1991 11	5818851	5818851	G	T	G	K	exonic	OR52E6	missense	NM_001005167:p.P285T
LU-1991 11	8916121	8916121	C	G	C	S	exonic	ASCL3	missense	NM_020646:p.R55P
LU-1991 11	68460620	68460620	G	T	G	K	exonic	IGHMBP2	missense	NM_002180:p.G699V
LU-1991 11	131904164	131904164	C	A	C	M	splicing	OPCML	NA	NA
LU-1991 12	131120139	131120139	G	C	G	S	splicing	EP400	missense	NM_015409:p.Q3006H
LU-1991 14	19833384	19833384	G	A	G	R	exonic	TTC5	missense	NM_138376:p.P329S
LU-1991 14	30712334	30712334	C	A	C	M	exonic	HECTD1	missense	NM_015382:p.G312V
LU-1991 14	50294857	50294857	T	G	T	K	exonic	NIN	missense	NM_182946:p.K881Q
LU-1991 14	91045710	91045710	G	A	G	R	exonic	SMEK1	missense	NM_032560:p.T12M
LU-1991 15	23476497	23476497	C	T	C	Y	exonic	ATP10A	missense	NM_024490:p.V1244M
LU-1991 15	75260398	75260398	T	C	T	Y	exonic	PEAK1	missense	NM_024776:p.Y309C
LU-1991 16	4599718	4599718	G	C	G	S	exonic	FAM100A	missense	NM_145253:p.P151A
LU-1991 16	20379016	20379016	A	T	A	W	exonic	ACSM2A	missense	NM_001010845:p.S27C
LU-1991 16	49733015	49733015	C	T	C	Y	exonic	SALL1	missense	NM_002968:p.V207M
LU-1991 17	3142559	3142559	G	T	G	K	exonic	OR3A1	missense	NM_002550:p.A23E
LU-1991 17	16267804	16267804	G	C	G	S	exonic	TRPV2	missense	NM_016113:p.E308Q
LU-2349 3	42274716	42274716	G	C	G	S	exonic	CCK	missense	NM_000729:p.R76G
Lu-597 6	43856533	43856533	G	A	G	R	exonic	VEGFA	missense	NM_001171623:p.R170H
7313 1	156702421	156702421	G	T	G	K	exonic	OR10K1	missense	NM_001004473:p.C149F
7313 1	166116368	166116368	T	A	T	W	exonic	ADCY10	missense	NM_018417:p.Q375L
7313 1	43555500	43555500	T	A	T	W	exonic	TIE1	missense	NM_005424:p.L818H
7313 10	26829889	26829889	T	C	T	Y	exonic	APBB1P	missense	NM_019043:p.L99P
7313 10	68357914	68357914	G	T	G	K	exonic	LRRTM3	missense	NM_178011:p.A412S
7313 11	123945533	123945533	T	C	T	Y	exonic	OR8A1	missense	NM_001005194:p.F120S
7313 13	24569369	24569369	G	A	R	R	exonic	PABPC3	missense	NM_030979:p.E345K
7313 2	210267643	210267643	C	A	C	M	exonic	MAP2	missense	NM_002374:p.P835Q
7313 20	30503867	30503867	C	T	C	Y	exonic	C20orf112	missense	NM_080616:p.R308Q
7313 4	96980513	96980513	C	G	C	S	exonic	PDHA2	nonsense	NM_005390:p.Y63X
7313 Y	57752241	57752241	G	C	G	S	exonic	IL9R	missense	NM_002186:p.G447R
7996 9	124591613	124591613	G	C	G	S	exonic	OR5C1	missense	NM_001001923:p.S194T
12586 1	155146782	155146782	C	T	C	Y	exonic	PEAR1	missense	NM_001080471:p.P604L
12586 14	69489985	69489985	G	A	G	R	exonic	SMOC1	missense	NM_022137:p.D121N
12586 17	3538086	3538086	C	A	C	M	exonic	P2RX5	missense	NM_002561:p.G317V
12586 17	49255422	49255422	C	A	C	M	exonic	KIF2B	missense	NM_032559:p.S10Y
12586 19	7841998	7841998	A	G	A	R	exonic	FLJ22184	missense	NM_001190467:p.W711R
12586 21	46364163	46364163	C	A	C	M	exonic	COL6A2	missense	NM_058174:p.P435T
12820 16	69658720	69658720	C	A	C	M	exonic	HYDIN	missense	NM_001198542:p.E710D
12820 19	41028226	41028226	G	A	G	R	exonic	NPH51	missense	NM_004646:p.A605V
12820 9	99117049	99117049	G	T	G	K	splicing	C9orf174	missense	NM_020893:p.M309I
12924 1	12902285	12902285	T	C	T	Y	exonic	PRAMEF7	missense	NM_001012276:p.V297A
12924 1	13480889	13480889	A	G	A	R	exonic	PRAMEF7	missense	NM_001012276:p.V297A
12924 1	154888959	154888959	G	T	G	K	exonic	BCAN	missense	NM_198427:p.R531S
12924 1	19280442	19280442	C	A	C	M	exonic	UBR4	missense	NM_020765:p.G5074V
12924 10	48049173	48049173	T	C	T	Y	exonic	GDF10	missense	NM_004962:p.Y240C
12924 10	50624885	50624885	C	A	C	M	exonic	OGDHL	missense	NM_018245:p.G405C
12924 14	104142095	104142095	T	C	T	Y	exonic	TMEM179	missense	NM_207379:p.Q10R
12924 15	41661613	41661613	C	A	C	M	exonic	PPIP5K1	missense	NM_001190214:p.G216V
12924 15	41761448	41761448	C	A	C	M	intergenic	NA	NA	NA
12924 15	63411435	63411435	A	C	A	M	exonic	IGDCC3	missense	NM_004884:p.F349V
12924 16	45339132	45339132	C	A	C	M	exonic	MYLK3	nonsense	NM_182493:p.E159X
12924 17	1486835	1486835	C	A	C	M	exonic	SCARF1	missense	NM_003693:p.W517C
12924 19	49344765	49344765	A	T	A	W	splicing	ZNF234	missense	NM_001144824:p.E6V
12924 22	35656371	35656371	G	T	G	K	exonic	CSF2RB	missense	NM_000395:p.A243S
12924 3	123463116	123463116	T	A	T	W	exonic	CASR	missense	NM_001178065:p.S182T
12924 5	79960676	79960676	C	T	C	Y	exonic	DHFR	missense	NM_000791:p.E184K
12924 X	154657519	154657519	G	T	G	K	exonic	SPRY3	missense	NM_005840:p.R264S
12924 X	16099023	16099023	C	A	C	M	intergenic	NA	NA	NA
12924 Y	57516719	57516719	G	T	G	K	exonic	SPRY3	missense	NM_005840:p.R264S
13280 1	116944164	116944164	G	A	R	R	exonic	IGSF3	missense	NM_001007237:p.R651W
13280 11	124175353	124175353	C	A	C	M	exonic	C11orf61	missense	NM_024631:p.R45L
13280 11	86343504	86343504	G	C	G	S	exonic	FZD4	missense	NM_012193:p.S91C
13280 12	112391325	112391325	C	A	C	M	exonic	LHX5	missense	NM_022363:p.G128C
13280 14	87799634	87799634	C	G	C	S	exonic	CNK10	missense	NM_138318:p.A23P
13280 16	20462042	20462042	C	A	C	M	exonic	ACSM2B	missense	NM_182617:p.W442L
13280 17	30792494	30792494	T	C	Y	C	exonic	SLFN13	missense	NM_144682:p.R643G
13280 17	74551769	74551769	G	T	G	K	exonic	C1QTNF1	nonsense	NM_030968:p.E42X

13280	19	55862524	55862524	G	T	G	K	exonic	SHANK1	missense	NM_016148:p.A1502D
13280	3	75558402	75558402	C	T	Y	T	ncRNA	FAM86DP	NA	NA
13280	5	73177871	73177871	G	T	G	K	exonic	RGNEF	missense	NM_001080479:p.A4845
13280	7	72626650	72626650	T	A	T	W	splicing	TBL2	missense	NM_012453:p.K87M
13280	7	94953318	94953318	G	T	G	K	exonic	ASB4	missense	NM_145872:p.L33F
13280	X	152339571	152339571	C	A	C	M	exonic	ZFP92	missense	NM_001136273:p.A181E
13280	X	66682840	66682840	C	A	C	M	exonic	AR	missense	NM_000044:p.P376H
13394	12	50865716	50865716	C	T	C	Y	intronic	KRT80	NA	NA
13394	7	121731405	121731405	G	T	G	K	exonic	FEZF1	missense	NM_001024613:p.A108E
13542	1	246106171	246106171	A	C	A	M	exonic	TRIM58	missense	NM_015431:p.E406D
13542	5	149193282	149193282	G	T	G	K	exonic	PPARGC1B	nonsense	NM_001172698:p.E446X
15145	1	153476403	153476403	T	G	T	K	exonic	GBA	missense	NM_000157:p.T69P
15145	1	154717348	154717348	C	A	C	M	exonic	MEF2D	nonsense	NM_005920:p.E100X
15145	10	135054840	135054840	G	A	G	R	exonic	PAOX	missense	NM_152911:p.R476H
15145	19	6452604	6452604	T	A	T	W	exonic	TUBB4	missense	NM_006087:p.I30F
16246	1	212624715	212624715	T	G	T	K	exonic	PTPN14	missense	NM_005401:p.N369T
16246	1	238323439	238323439	C	A	C	M	exonic	FMN2	missense	NM_020066:p.H469Q
16246	1	53832859	53832859	T	C	T	Y	exonic	GLI51	missense	NM_147193:p.N102S
16246	11	110000238	110000238	T	A	T	W	exonic	ARHGAP20	missense	NM_020809:p.N121Y
16246	11	63879351	63879351	G	T	G	K	exonic	CCDC88B	synonymou	NM_032251:p.G1403G
16246	12	15564408	15564408	G	T	G	K	exonic	PTPRO	missense	NM_002848:p.A596S
16246	12	32840458	32840458	T	C	T	Y	exonic	PKP2	missense	NM_001005242:p.T737A
16246	2	167815504	167815504	C	G	C	S	exonic	XIRP2	missense	NM_152381:p.P3119R
16246	2	198350033	198350033	G	C	G	S	exonic	BOLL	missense	NM_197970:p.Q103E
16246	22	42569152	42569152	G	T	G	K	intronic	SULT4A1	NA	NA
16246	5	14540788	14540788	C	G	C	S	exonic	TRIO	missense	NM_007118:p.V2351L
16246	7	70913415	70913415	T	A	T	W	splicing	CALN1	NA	NA
16246	9	23694928	23694928	C	A	C	M	exonic	ELAVL2	missense	NM_004432:p.D159Y
16246	9	95468105	95468105	A	T	A	W	exonic	PHF2	missense	NM_005392:p.K710M
16246	X	55187006	55187006	G	T	G	K	exonic	FAM104B	missense	NM_001166699:p.N94K
16461	1	152808912	152808912	G	C	G	S	exonic	CHRN2	missense	NM_000748:p.M77I
16461	1	171895104	171895104	T	C	T	Y	exonic	ANKRD45	missense	NM_198493:p.E26G
16461	1	245836214	245836214	A	G	A	R	exonic	OR2G3	missense	NM_001001914:p.H235R
16461	1	246752471	246752471	T	A	T	W	exonic	OR2G6	missense	NM_001013355:p.L301M
16461	10	45641569	45641569	C	A	C	M	exonic	AGAP4	nonsense	NM_133446:p.E598X
16461	10	50614447	50614447	C	A	C	M	exonic	OGDHL	missense	NM_018245:p.D906Y
16461	10	51134670	51134670	C	A	C	M	exonic	AGAP7	nonsense	NM_001077685:p.E598X
16461	11	57715142	57715142	T	C	T	Y	exonic	OR9Q2	missense	NM_001005283:p.F202L
16461	11	60656166	60656166	C	G	C	S	exonic	VPS37C	missense	NM_017966:p.G257A
16461	11	89286992	89286992	T	G	T	K	intergenic	NA	NA	NA
16461	11	89303112	89303112	A	C	A	M	splicing	TRIM49L1	synonymou	NM_001105522:p.R254R
16461	13	52293134	52293134	G	A	G	R	intergenic	NA	NA	NA
16461	16	23632145	23632145	C	A	C	M	exonic	ERN2	missense	NM_033266:p.R3S
16461	17	9704128	9704128	C	A	C	M	exonic	GLP2R	missense	NM_004246:p.L304M
16461	19	11398788	11398788	A	T	A	T	exonic	CCDC151	missense	NM_145045:p.L173M
16461	19	52536684	52536684	C	G	C	S	exonic	GPR77	missense	NM_018485:p.S263C
16461	19	54751806	54751806	C	A	C	M	splicing	NOSIP	NA	NA
16461	19	63759311	63759311	C	A	C	M	exonic	UBE2M	missense	NM_003969:p.G170V
16461	2	130567481	130567481	C	A	C	M	splicing	POTEF	nonsense	NM_001099771:p.E494X
16461	2	131719520	131719520	G	T	G	K	splicing	POTEE	nonsense	NM_001083538:p.E494X
16461	21	42584707	42584707	G	A	G	R	exonic	ABCG1	missense	NM_207628:p.V487M
16461	22	39698614	39698614	A	T	A	W	UTR3	RBX1	NA	NA
16461	4	103949938	103949938	A	T	A	W	splicing	UBE2D3	NA	NA
16461	6	29821359	29821359	C	A	C	M	ncRNA	LOC285830	NA	NA
16461	6	34104122	34104122	C	G	C	S	splicing	GRM4	NA	NA
16461	7	4120354	4120354	G	T	G	K	exonic	SDK1	nonsense	NM_152744:p.E1249X
16461	9	37725679	37725679	C	A	C	M	exonic	FRMPD1	missense	NM_014907:p.T450K
16461	X	106403000	106403000	G	A	G	R	intergenic	NA	NA	NA
16617	15	41662935	41662935	T	C	T	Y	exonic	PPIP5K1	missense	NM_001190214:p.N101S
16617	15	41762770	41762770	T	C	T	Y	intergenic	NA	NA	NA
16989	19	53031383	53031383	T	A	T	W	exonic	CRX	missense	NM_000554:p.F58I
16989	2	230820911	230820911	C	T	C	Y	exonic	SP140	missense	NM_007237:p.T260I
18472	12	6567261	6567261	A	T	A	W	exonic	CHD4	missense	NM_001273:p.L1194Q
18472	6	32407808	32407808	C	T	C	Y	splicing	C6orf10	synonymou	NM_006781:p.V158V
LU-1516	1	153257760	153257760	G	T	G	K	exonic	DCST2	missense	NM_144622:p.H736N
LU-1516	10	76459658	76459658	G	T	G	K	exonic	MYST4	missense	NM_012330:p.M1690I
LU-1516	11	64265562	64265562	G	T	G	K	intronic	RASGRP2	NA	NA
LU-1991	1	12960891	12960891	G	C	G	S	exonic	PRAMEF22	missense	NM_001100631:p.V457L
LU-1991	1	13201497	13201497	C	G	C	S	exonic	PRAMEF22	missense	NM_001100631:p.V457L
LU-1991	1	93830486	93830486	T	C	T	Y	exonic	BCAR3	missense	NM_003567:p.E137G
LU-1991	10	115325645	115325645	G	T	G	K	splicing	HABP2	NA	NA
LU-1991	11	70937349	70937349	A	G	A	R	UTR5	KRTAP5-9	NA	NA
LU-1991	15	83183333	83183333	G	C	G	S	splicing	ALPK3	NA	NA
LU-1991	16	29816771	29816771	G	A	G	R	exonic	SEZ6L2	missense	NM_012410:p.P39S
LU-1991	18	5406152	5406152	G	T	G	K	exonic	EPB41L3	missense	NM_012307:p.Q578K
LU-1991	2	135337555	135337555	C	G	C	S	exonic	ACMSD	missense	NM_138326:p.L124V
LU-1991	2	220212558	220212558	G	T	G	K	exonic	SLC4A3	missense	NM_201574:p.W1072L
LU-1991	3	131178741	131178741	G	C	G	S	exonic	TRH	missense	NM_007117:p.E241Q
LU-1991	3	4533242	4533242	A	G	A	R	exonic	ITPR1	missense	NM_002222:p.T23A

LU-1991 3	9744066	9744066	G	C	G	S	intronic	CPNE9	NA	NA
LU-1991 8	7758457	7758457	G	T	G	K	exonic	SPAG11A	missense	NM_001081552:p.R106L
LU-2349 11	59039785	59039785	T	C	T	Y	exonic	OR4D9	missense	NM_001004711:p.F275S
LU-2349 11	65947933	65947933	G	C	G	S	exonic	NPAS4	missense	NM_178864:p.Q332H
12924 X	21584027	21584027	G	T	G	K	exonic	KLHL34	missense	NM_153270:p.R601S
16461 15	97487241	97487241	C	T	C	Y	exonic	SYNM	synonymou	NM_145728:p.L384L
16461 6	56566624	56566624	C	G	C	S	exonic	DST	missense	NM_015548:p.L1551F
LU-1991 1	157045013	157045013	C	G	C	S	intergenic	NA	NA	NA
LU-1991 19	10463272	10463272	G	T	G	K	exonic	KEAP1	missense	NM_012289:p.H436N
LU-1991 19	10995212	10995212	G	T	G	K	exonic	SMARCA4	nonsense	NM_001128845:p.E960X
LU-1991 20	49054177	49054177	G	T	G	K	exonic	KCNG1	missense	NM_002237:p.L450M
LU-1991 22	19715527	19715527	G	T	G	K	exonic	SLC7A4	missense	NM_004173:p.S192Y
LU-1991 22	20129956	20129956	C	T	C	Y	exonic	HIC2	missense	NM_015094:p.P258S
LU-1991 22	34073156	34073156	G	T	G	K	exonic	TOM1	missense	NM_001135729:p.R446L
LU-1991 22	39818988	39818988	T	G	T	Y	exonic	EP300	missense	NM_001429:p.S12A
LU-1991 3	75870166	75870166	C	A	C	M	exonic	ZNF717	missense	NM_001128223:p.S433I
LU-1991 X	107203229	107203229	C	T	C	Y	exonic	VSIG1	missense	NM_001170553:p.S257F
LU-1991 X	153235241	153235241	C	A	C	M	exonic	FLNA	missense	NM_001456:p.C1904F
LU-1991 X	9860481	9860481	C	G	C	S	exonic	SHROOM2	nonsense	NM_001649:p.S1053X
LU-1991 X	9865379	9865379	C	G	C	S	exonic	SHROOM2	missense	NM_001649:p.R1265G
7313 1	142054707	142054707	A	C	A	M	intergenic	NA	NA	NA
7313 13	19119125	19119125	G	A	G	R	exonic	PRPF3	missense	NM_004698:p.D492A
7313 18	9112638	9112638	G	C	G	S	splicing	CAD	NA	NA
7313 19	57962244	57962244	C	T	C	Y	exonic	HSPD1	missense	NM_002156:p.G56E
7313 2	198071651	198071651	C	T	C	Y	ncRNA	GK3P	NA	NA
7313 20	4110807	4110807	G	T	G	K	exonic	OR4F16	missense	NM_001005277:p.R89G
7313 4	166419260	166419260	G	C	G	S	splicing	FRS3	NA	NA
7313 5	180727158	180727158	C	G	C	S	exonic	PLEKHA8	missense	NM_001197026:p.L494P
7313 8	106760	106760	G	C	G	S	exonic	OR4F21	missense	NM_001005504:p.R89G
7945 7	30084849	30084849	T	C	T	Y	exonic	SPAG11B	missense	NM_058202:p.R80L
LU-1516 X	153261315	153261315	A	C	A	M	exonic	MPHOSPH8	missense	NM_017520:p.M304I
LU-1991 8	7292957	7292957	C	A	C	M	exonic	PLEKHG3	missense	NM_015549:p.S52P
Lu-2375 1	148583310	148583310	A	C	A	M	exonic	NDUFV2	missense	NM_021074:p.R143P
Lu-2375 14	64264256	64264256	T	C	T	Y	exonic	ZNF600	missense	NM_198457:p.D193N
Lu-2375 6	41851133	41851133	A	C	A	M	exonic	SMOX	missense	NM_175839:p.E227D
Lu-597 2	27314256	27314256	T	G	T	K	exonic	EMD	missense	NM_000117:p.S52R

Supplementary Table 8. All somatic SNVs in protein coding regions in 31 lung cancer genomes

sample	chr	start	end	ref	var	geno_N	geno_T	region	gene	function	seq_change
12586	1	57093209	57093209	C	A	C	M	exonic	C8A	missense	NM_000562:p.P16H
12586	1	66485892	66485892	C	A	C	M	exonic	PDE4B	missense	NM_001037340:p.A133E
12586	1	68677832	68677832	C	T	C	Y	splicing	RPE65	missense	NM_000329:p.S242N
12586	1	70266524	70266524	-	T	G	*/+T	exonic	LRRC7	FS_ins	NM_020794:p.G588fs
12586	1	70266526	70266526	A	T	A	W	exonic	LRRC7	nonsense	NM_020794:p.K589X
12586	1	70291385	70291385	G	A	G	R	exonic	LRRC7	missense	NM_020794:p.R1362Q
12586	1	86024657	86024657	A	T	A	W	exonic	COL24A1	missense	NM_152890:p.L1343M
12586	1	90172413	90172413	G	T	G	K	exonic	LRRC8D	missense	NM_018103:p.V400F
12586	1	99534948	99534948	C	A	C	M	exonic	LPPR4	missense	NM_014839:p.P159T
12586	1	114255536	114255536	G	T	G	K	exonic	DCLRE1B	missense	NM_022836:p.D267Y
12586	1	156783775	156783775	G	T	G	K	exonic	OR6Y1	missense	NM_001005189:p.H249N
12586	1	157013366	157013366	T	C	T	Y	exonic	OR6N2	missense	NM_001005278:p.I228M
12586	1	174792283	174792283	T	A	T	W	exonic	PAPPA2	missense	NM_021936:p.F68I
12586	1	203206420	203206426	GATGG	-	G	*/-	exonic	NFASC	FS_del	NM_001005388:p.353_355del
12586	1	246071401	246071401	A	T	A	W	exonic	OR11L1	missense	NM_001001959:p.C141S
12586	1	246195900	246195900	T	A	T	W	exonic	OR2AK2	missense	NM_001004491:p.L215H
12586	1	246636879	246636879	G	T	G	K	exonic	OR2T1	missense	NM_030904:p.D321Y
12586	1	246752378	246752378	C	A	C	M	exonic	OR2G6	missense	NM_001013355:p.Q270K
12586	2	36040	36040	C	A	C	M	exonic	FAM110C	missense	NM_001077710:p.D116Y
12586	2	29308733	29308733	G	A	G	R	exonic	ALK	missense	NM_004304:p.P858L
12586	2	37141282	37141282	C	A	C	M	exonic	HEATR5B	missense	NM_019024:p.G599C
12586	2	86560909	86560909	A	T	A	W	exonic	KDM3A	missense	NM_018433:p.S809C
12586	2	122202349	122202349	C	A	C	M	exonic	MK1671P	missense	NM_032390:p.K226N
12586	2	131236210	131236210	A	C	A	M	exonic	FAM123C	missense	NM_001105195:p.E32A
12586	2	131917457	131917457	C	A	C	M	ncRNA	LOC401010	NA	NA
12586	2	151922470	151922470	C	T	C	Y	exonic	TNFAIP6	missense	NM_007115:p.T15I
12586	2	167810391	167810391	G	A	G	R	exonic	XIRP2	missense	NM_152381:p.G1415S
12586	2	170079381	170079381	A	G	A	R	exonic	KBTBD10	missense	NM_006063:p.R388G
12586	2	210302827	210302827	C	T	C	Y	exonic	MAP2	missense	NM_002374:p.R1722C
12586	2	215591025	215591025	C	A	C	M	exonic	ABCA12	missense	NM_173076:p.R578S
12586	3	46282127	46282127	G	A	G	R	exonic	CCR3	nonsense	NM_001164680:p.W176X
12586	3	75869914	75869914	C	T	C	Y	exonic	ZNF717	missense	NM_001128223:p.R517H
12586	3	115553043	115553043	C	A	C	M	exonic	ZBTB20	missense	NM_001164346:p.R118L
12586	3	130470141	130470141	G	T	G	K	exonic	COG	nonsense	NM_016128:p.E588X
12586	3	135042829	135042829	G	C	G	S	exonic	RAB6B	nonsense	NM_016577:p.Y93X
12586	4	22024454	22024454	C	T	C	Y	exonic	GPR125	missense	NM_145290:p.D631N
12586	4	47545094	47545094	A	G	A	R	exonic	NFXL1	missense	NM_152995:p.F860S
12586	4	71290299	71290299	G	T	G	K	UTR3	SMR3B	NA	NA
12586	4	110078433	110078433	G	T	G	K	exonic	COL25A1	missense	NM_032518:p.P230T
12586	4	126589539	126589539	G	A	G	R	exonic	FAT4	missense	NM_024582:p.E2640K
12586	5	11465146	11465146	C	A	C	M	splicing	CTNND2	NA	NA
12586	5	13882800	13882800	G	C	G	S	exonic	DNAH5	missense	NM_001369:p.A2088G
12586	5	24571068	24571068	T	A	T	W	exonic	CDH10	missense	NM_006727:p.M242L
12586	5	37161125	37161125	G	A	G	R	exonic	C5orf42	missense	NM_023073:p.P2925L
12586	5	76206962	76206962	G	T	G	K	exonic	S100Z	missense	NM_130772:p.A8S
12586	5	132237551	132237551	C	A	C	M	exonic	LEAP2	missense	NM_052971:p.S23Y
12586	5	137616963	137616963	G	A	G	R	splicing	GFRA3	missense	NM_001496:p.T342M
12586	5	140690593	140690593	G	T	G	K	exonic	PCDHGA1	missense	NM_031993:p.G53V
12586	5	140692131	140692131	G	-	C	*/-G	exonic	PCDHGA1	FS_del	NM_031993:p.A566fs
12586	6	29177065	29177065	C	G	C	S	intergenic	NA	NA	NA
12586	6	29339482	29339482	A	T	A	W	intergenic	NA	NA	NA
12586	6	54174938	54174938	C	A	C	M	exonic	C6orf142	missense	NM_138569:p.P354H
12586	6	69405498	69405498	C	A	C	M	exonic	BAI3	nonsense	NM_001704:p.Y70X
12586	6	70105948	70105948	C	G	C	S	exonic	BAI3	missense	NM_001704:p.A1097G
12586	6	76769378	76769378	T	A	T	W	exonic	IMPG1	missense	NM_001563:p.D423V
12586	6	97160532	97160532	G	T	G	K	exonic	FHL5	missense	NM_001170807:p.W123L
12586	6	102372975	102372975	C	A	C	M	exonic	GRIK2	missense	NM_021956:p.T414K
12586	6	102444337	102444337	G	A	G	R	exonic	GRIK2	missense	NM_021956:p.V552I
12586	6	117757260	117757260	C	A	C	M	exonic	ROS1	missense	NM_002944:p.G1764V
12586	6	117757261	117757261	C	A	C	M	exonic	ROS1	missense	NM_002944:p.G1764W
12586	6	160942049	160942049	C	G	C	S	exonic	LPA	missense	NM_005577:p.S1006T
12586	7	36160955	36160955	G	A	G	R	exonic	EEPD1	missense	NM_030636:p.R166H
12586	7	136351543	136351543	C	G	C	S	exonic	CHRM2	missense	NM_001006629:p.A464G
12586	7	141125536	141125536	G	T	G	K	exonic	TAS2R4	missense	NM_016944:p.G260V
12586	7	148482359	148482359	C	-	T	*/-C	exonic	ZNF398	FS_del	NM_170686:p.I138fs
12586	7	150341383	150341383	G	T	G	K	exonic	NOS3	nonsense	NM_000603:p.E1080X
12586	8	41673173	41673173	G	T	G	K	exonic	ANK1	missense	NM_000037:p.T942K
12586	8	80841501	80841501	C	A	C	M	exonic	HEY1	missense	NM_001040708:p.A95S
12586	8	82522116	82522116	T	C	T	Y	exonic	PMP2	missense	NM_002677:p.M21V
12586	8	87311402	87311402	A	G	A	R	exonic	SLC7A13	missense	NM_138817:p.F74S
12586	8	113346981	113346981	C	A	C	M	exonic	CSMD3	missense	NM_198123:p.D3175Y
12586	9	92646131	92646131	A	G	A	R	exonic	SYK	missense	NM_001135052:p.S44G
12586	9	102086427	102086427	C	T	C	Y	exonic	INVS	nonsense	NM_183245:p.R597X
12586	9	118810251	118810251	C	A	C	M	exonic	ASTN2	missense	NM_014010:p.R460M
12586	9	119016542	119016542	C	T	C	Y	exonic	ASTN2	missense	NM_014010:p.E311K
12586	9	134972308	134972308	C	A	C	M	exonic	RALGDS	missense	NM_006266:p.W466C

12586	10	15295965	15295965	C	A	C	M	exonic	FAM171A1	missense	NM_001010924:p.R543L
12586	10	26495058	26495058	G	T	G	K	exonic	MYO3A	missense	NM_017433:p.C1019F
12586	10	26548162	26548162	G	C	G	S	exonic	GAD2	missense	NM_001134366:p.E157D
12586	10	91133979	91133979	C	A	C	M	exonic	IFIT1B	missense	NM_001010987:p.P310H
12586	10	100232503	100232503	G	A	G	R	exonic	HPSE2	missense	NM_001166246:p.T498I
12586	10	102247416	102247416	C	G	C	S	exonic	SEC31B	missense	NM_015490:p.C663S
12586	10	134413041	134413041	G	T	G	K	exonic	INPP5A	missense	NM_0055539:p.V255F
12586	11	5418896	5418896	C	G	C	S	exonic	OR511I	missense	NM_001005288:p.R142P
12586	11	5558910	5558910	T	A	T	W	exonic	OR52B6	missense	NM_001005162:p.H76Q
12586	11	22248457	22248457	G	T	G	K	exonic	ANOS	missense	NM_213599:p.R641L
12586	11	34068310	34068310	G	C	G	S	exonic	CAPRIN1	missense	NM_203364:p.L434F
12586	11	44051592	44051592	A	G	A	R	exonic	ACCS	missense	NM_001127219:p.Q123R
12586	11	60848077	60848077	T	C	T	Y	exonic	DDB1	missense	NM_001923:p.M291V
12586	11	64253033	64253033	C	T	C	Y	exonic	RASGRP2	missense	NM_153819:p.R550H
12586	11	64253034	64253034	G	T	G	K	exonic	RASGRP2	missense	NM_153819:p.R550S
12586	11	65374218	65374218	C	A	C	M	exonic	SNX32	missense	NM_152760:p.P92T
12586	11	75846878	75846878	G	A	G	R	exonic	C11orf30	missense	NM_020193:p.M83I
12586	11	107711791	107711791	G	T	G	K	exonic	ATM	missense	NM_000051:p.D2721Y
12586	11	109630045	109630045	C	A	C	M	splicing	RDX	NA	NA
12586	12	7531663	7531663	T	A	T	W	exonic	CD163	missense	NM_004244:p.S570C
12586	12	25289552	25289552	C	A	C	M	exonic	KRAS	missense	NM_033360:p.G12C
12586	12	50568975	50568975	G	T	G	K	intronic	ANKRD33	NA	NA
12586	12	53928128	53928128	G	A	G	R	exonic	OR6C74	missense	NM_001005490:p.E264K
12586	12	54840051	54840051	T	G	T	K	exonic	MYL6	missense	NM_079423:p.F67L
12586	12	56252681	56252681	G	T	G	K	exonic	KIF5A	nonsense	NM_004984:p.G541X
12586	12	95575969	95575969	G	T	G	K	intergenic	NA	NA	NA
12586	12	116210333	116210333	G	T	G	K	exonic	NOS1	missense	NM_000620:p.D352E
12586	13	40415235	40415235	T	A	T	W	exonic	ELF1	missense	NM_001145353:p.D196V
12586	13	47461017	47461017	C	T	C	Y	splicing	SUCLA2	NA	NA
12586	14	19366030	19366030	G	T	G	K	exonic	OR4N2	missense	NM_001004723:p.V195L
12586	14	19414308	19414308	G	T	G	K	exonic	OR4K2	missense	NM_001005501:p.L14F
12586	14	22935332	22935332	C	A	C	M	splicing	MYH6	NA	NA
12586	14	51804820	51804820	G	T	G	K	exonic	PTGDR	missense	NM_000953:p.G180C
12586	14	64329799	64329799	G	A	G	R	exonic	SPTB	missense	NM_001024858:p.R779W
12586	14	85158014	85158014	C	G	C	S	exonic	FLRT2	missense	NM_013231:p.L135V
12586	15	46821518	46821518	C	T	C	Y	exonic	CEP152	missense	NM_001194998:p.E1303K
12586	15	70478078	70478078	G	T	G	K	exonic	TMEM202	missense	NM_001080462:p.A38S
12586	15	89093827	89093827	C	T	C	Y	exonic	BLM	missense	NM_000057:p.P109S
12586	15	89093828	89093828	C	T	C	Y	exonic	BLM	missense	NM_000057:p.P109L
12586	16	21005814	21005814	T	G	T	K	exonic	DNAH3	missense	NM_017539:p.K912Q
12586	16	49343313	49343313	G	T	G	K	exonic	CYLD	missense	NM_001042412:p.D268Y
12586	16	83658349	83658349	G	-	T	*-/G	exonic	KIAA0513	FS_del	NM_014732:p.M57fs
12586	17	7693679	7693679	G	T	G	K	exonic	KDM6B	missense	NM_001080424:p.E1116D
12586	17	10372948	10372948	C	A	C	M	exonic	MYH2	missense	NM_017534:p.E1176D
12586	17	10387772	10387772	T	A	T	W	exonic	MYH2	missense	NM_017534:p.N241I
12586	17	23898551	23898551	C	A	C	M	exonic	UNC119	missense	NM_005148:p.S205I
12586	17	44934502	44934502	C	A	C	M	exonic	NGFR	missense	NM_002507:p.L49M
12586	17	45912406	45912406	G	T	G	K	exonic	RSAD1	missense	NM_018346:p.G146W
12586	17	77604511	77604511	G	T	G	K	exonic	GPS1	missense	NM_212492:p.V76L
12586	18	12018944	12018944	G	T	G	K	exonic	IMPA2	missense	NM_014214:p.A235S
12586	18	21866382	21866382	C	A	C	M	exonic	SS18	missense	NM_005637:p.Q372H
12586	18	29792266	29792266	G	A	G	R	exonic	NOL4	missense	NM_001198548:p.H391Y
12586	18	32630865	32630865	C	A	C	M	exonic	C18orf10	missense	NM_015476:p.Q268H
12586	19	42059829	42059829	G	T	G	K	exonic	ZNF345	missense	NM_003419:p.G86V
12586	19	48399978	48399978	C	A	C	M	exonic	PSG4	missense	NM_213633:p.Q110H
12586	19	49625493	49625493	A	T	A	W	exonic	ZNF229	missense	NM_014518:p.C435S
12586	20	25200042	25200042	A	T	A	W	exonic	PYGB	missense	NM_002862:p.T150S
12586	20	35097307	35097307	G	A	G	R	exonic	RBL1	missense	NM_183404:p.P641L
12586	20	48629202	48629202	G	T	G	K	exonic	PTPN1	missense	NM_002827:p.D265Y
12586	20	51305849	51305849	G	T	G	K	exonic	TSHZ2	missense	NM_173485:p.R815S
12586	20	55574055	55574055	C	T	C	Y	exonic	PCK1	missense	NM_002591:p.T553M
12586	22	14667549	14667549	C	T	C	Y	exonic	POTEH	missense	NM_001136213:p.G113S
12586	22	24045884	24045884	A	T	A	W	ncRNA	IGLL3P	NA	NA
12586	22	30536572	30536572	G	A	G	R	exonic	DEPDC5	missense	NM_001007188:p.A464T
12586	X	2955389	2955389	C	A	C	M	exonic	ARSH	missense	NM_001011719:p.R358S
12586	X	10495154	10495154	C	A	C	M	exonic	MID1	missense	NM_001193280:p.C145F
12586	X	15522984	15522984	G	C	G	S	exonic	ACE2	missense	NM_021804:p.P84A
12586	X	18930954	18930954	G	T	G	K	exonic	GPR64	missense	NM_001184836:p.L697M
12586	X	24676989	24676989	G	T	G	K	exonic	POLA1	missense	NM_016937:p.A969S
12586	X	40343926	40343926	G	T	G	K	exonic	ATP6AP2	missense	NM_005765:p.A243S
12586	X	46917495	46917495	G	T	G	K	exonic	RBM10	missense	NM_005676:p.G153C
12586	X	78313413	78313413	C	A	C	M	exonic	GPR174	missense	NM_032553:p.P85T
12586	X	86659766	86659766	A	T	A	W	exonic	KLHL4	missense	NM_019117:p.N72Y
12586	X	125126588	125126588	G	T	G	K	exonic	DCAF12L2	missense	NM_001013628:p.P334Q
12586	X	125126957	125126957	C	A	C	M	exonic	DCAF12L2	missense	NM_001013628:p.G211V
12586	X	147862768	147862768	G	C	G	S	exonic	AFF2	missense	NM_001169122:p.D1081H
12804	1	214313160	214313160	G	T	G	K	exonic	USH2A	nonsense	NM_206933:p.S1893X
12804	2	73306322	73306322	G	C	G	S	exonic	SMYD5	missense	NM_006062:p.R364P
12804	7	6047147	6047147	G	A	G	R	exonic	EIF2AK1	nonsense	NM_014413:p.Q341X



12804	13	45475416	45475416	G	A	G	R	exonic	ZC3H13	missense	NM_015070:p.P268L
12804	16	21078248	21078248	G	T	G	K	exonic	DNAH3	missense	NM_017539:p.R6S
12804	20	60769686	60769686	G	T	G	K	exonic	SLCO4A1	missense	NM_016354:p.E539D
12804	20	61546593	61546593	C	A	C	M	exonic	KCNQ2	missense	NM_172106:p.A185S
12804	X	9995365	9995365	C	T	C	Y	exonic	WWC3	nonsense	NM_015691:p.R19X
12804	X	82650909	82650909	G	T	G	K	exonic	POU3F4	missense	NM_000307:p.E307D
12804	X	153597687	153597687	G	T	G	K	exonic	GAB3	missense	NM_080612:p.L62I
12820	1	3635844	3635844	C	T	C	Y	exonic	TP73	missense	NM_001126240:p.R341W
12820	1	8312858	8312858	C	A	C	M	exonic	SLC45A1	missense	NM_001080397:p.L240I
12820	1	16205315	16205315	C	A	C	M	exonic	C1orf64	missense	NM_178840:p.P133T
12820	1	17227693	17227693	C	T	C	Y	exonic	SDHB	missense	NM_003000:p.D138N
12820	1	71285043	71285043	G	T	G	K	exonic	PTGER3	missense	NM_198716:p.S269Y
12820	1	103161526	103161526	G	T	G	K	exonic	COL11A1	missense	NM_001854:p.P1203Q
12820	1	146861194	146861194	A	G	A	R	exonic	NBPF15	missense	NM_173638:p.N648S
12820	1	148183210	148183210	C	A	C	M	exonic	OTUD7B	missense	NM_020205:p.G568W
12820	1	181054410	181054410	G	A	G	R	exonic	NPL	missense	NM_001200050:p.R171H
12820	1	194972683	194972683	A	T	A	W	exonic	CFH	missense	NM_000186:p.Q840H
12820	1	238436870	238436870	A	T	A	W	exonic	FMN2	missense	NM_020066:p.E712V
12820	1	246179540	246179540	C	G	C	S	exonic	OR2L8	missense	NM_001001963:p.P253R
12820	2	43818984	43818984	A	T	A	W	splicing	PLEKHH2	missense	NM_172069:p.T982S
12820	2	71507310	71507310	G	T	G	K	exonic	ZNF638	missense	NM_001014972:p.L1601F
12820	2	167814324	167814324	G	T	G	K	exonic	XIRP2	missense	NM_152381:p.D2726Y
12820	2	205677399	205677399	C	A	C	M	exonic	PARD3B	missense	NM_057177:p.S170Y
12820	2	234345709	234345709	A	T	A	W	exonic	UGT1A1	missense	NM_019075:p.D453V
12820	3	11325456	11325456	A	T	A	W	splicing	ATG7	NA	NA
12820	3	48577862	48577862	G	T	G	K	exonic	COL7A1	missense	NM_000094:p.H2838N
12820	3	120106185	120106185	C	T	C	Y	splicing	IGSF11	missense	NM_152538:p.R284K
12820	3	121872071	121872071	T	A	T	W	splicing	HGD	NA	NA
12820	3	126780571	126780571	T	C	T	Y	exonic	OSBPL11	missense	NM_022776:p.T138A
12820	3	148611335	148611335	T	C	T	Y	exonic	ZIC1	missense	NM_003412:p.M249T
12820	3	195888988	195888988	C	-	G	*/-C	exonic	FAM43A	FS_del	NM_153690:p.S48fs
12820	3	195888990	195888990	G	T	G	K	exonic	FAM43A	missense	NM_153690:p.R49L
12820	4	17439101	17439101	G	A	G	R	exonic	NCAPG	missense	NM_022346:p.E586K
12820	5	1087953	1087953	G	A	G	R	exonic	NKD2	missense	NM_033120:p.R170H
12820	5	13770423	13770423	C	A	C	M	splicing	DNAH5	NA	NA
12820	5	19519262	19519262	C	G	C	S	exonic	CDH18	missense	NM_001167667:p.V560L
12820	5	27024065	27024065	C	G	C	S	exonic	CDH9	missense	NM_016279:p.G45R
12820	5	36145839	36145839	T	-	C	*/-T	exonic	LMBRD2	FS_del	NM_001007527:p.R586fs
12820	5	37007856	37007856	C	T	C	Y	exonic	NIPBL	missense	NM_133433:p.P275L
12820	5	74132466	74132466	T	C	T	Y	exonic	FAM169A	missense	NM_015566:p.I366M
12820	5	82870925	82870925	C	A	C	M	exonic	VCAN	nonsense	NM_001164097:p.S1129X
12820	5	89819668	89819668	G	T	G	K	exonic	POLR3G	missense	NM_006467:p.M71I
12820	5	140533977	140533977	T	A	T	W	exonic	PCDHB7	missense	NM_018940:p.F459L
12820	5	156525535	156525535	C	T	C	Y	exonic	FAM71B	missense	NM_130899:p.V75I
12820	5	159991937	159991937	G	C	G	S	exonic	ATP10B	missense	NM_025153:p.T466S
12820	6	29249672	29249672	C	A	C	M	exonic	OR2J2	nonsense	NM_030905:p.S94X
12820	6	152664774	152664774	C	A	C	M	exonic	SYNE1	nonsense	NM_182961:p.E5822X
12820	7	21923030	21923030	T	C	T	Y	exonic	CDCA7L	missense	NM_001127371:p.K11R
12820	7	34854801	34854801	G	T	G	K	splicing	NPSR1	NA	NA
12820	7	36412555	36412555	G	C	G	S	exonic	ANLN	missense	NM_018685:p.G243A
12820	7	38223430	38223430	C	T	C	Y	splicing	STARD3NL	silent	NM_032016:p.N184N
12820	7	81169946	81169946	C	G	C	S	exonic	HGF	missense	NM_000601:p.V692L
12820	7	95638731	95638731	T	C	T	Y	exonic	SLC25A13	missense	NM_014251:p.I407V
12820	7	99272028	99272028	C	A	C	M	exonic	CYP3A43	missense	NM_057096:p.H30N
12820	7	100017608	100017608	G	A	G	R	exonic	LRCH4	nonsense	NM_002319:p.R162X
12820	7	134773617	134773617	C	A	C	M	exonic	CNOT4	missense	NM_001190848:p.M1I
12820	7	139728729	139728729	C	A	C	M	exonic	SLC37A3	missense	NM_032295:p.V23L
12820	8	34300083	34300083	C	T	C	Y	intergenic	NA	NA	NA
12820	8	95607678	95607678	G	A	G	R	exonic	KIAA1429	missense	NM_015496:p.A657V
12820	8	113720196	113720196	G	T	G	K	exonic	CSMD3	missense	NM_198123:p.T1144K
12820	8	113737583	113737583	T	C	T	Y	exonic	CSMD3	missense	NM_198123:p.N994D
12820	9	8508246	8508246	C	A	C	M	exonic	PTPRD	missense	NM_002839:p.G382V
12820	9	32625320	32625320	C	G	C	S	exonic	TAF1L	missense	NM_153809:p.L86F
12820	9	130865644	130865644	G	C	G	S	splicing	FAM73B	NA	NA
12820	9	133095947	133095947	G	T	G	K	exonic	NUP214	nonsense	NM_005085:p.G2062X
12820	9	137579612	137579612	C	A	C	M	exonic	OBP2A	missense	NM_014582:p.R118S
12820	10	7803746	7803746	G	T	G	K	splicing	ITIH2	missense	NM_002216:p.E289D
12820	10	70002261	70002261	C	G	C	S	exonic	TET1	missense	NM_030625:p.Q54E
12820	10	70002294	70002294	A	G	A	R	exonic	TET1	missense	NM_030625:p.K65E
12820	11	5687204	5687204	G	T	G	K	exonic	TRIM22	missense	NM_006074:p.C416F
12820	11	17390860	17390860	G	C	G	S	exonic	ABCC8	missense	NM_000352:p.L829V
12820	11	22340914	22340914	T	A	T	W	exonic	SLC17A6	missense	NM_020346:p.Y239N
12820	11	26539316	26539316	C	G	C	S	exonic	MUC15	missense	NM_145650:p.D293H
12820	11	48223864	48223864	G	T	G	K	exonic	OR4X2	missense	NM_001004727:p.M211I
12820	11	55409767	55409767	A	T	A	W	exonic	SPRYD5	missense	NM_032681:p.H96L
12820	11	58479666	58479666	C	A	C	M	exonic	GlyTL1	missense	NM_080661:p.P198T
12820	11	59702355	59702355	G	T	G	K	exonic	MS4A6A	missense	NM_152851:p.S98Y
12820	11	102458742	102458742	C	T	C	Y	exonic	DCUN1D5	missense	NM_032299:p.E96K
12820	12	7143525	7143525	G	T	G	K	intronic	C1RL	NA	NA

12820	12	20925157	20925157	G	T	G	K	exonic	SLCO1B3	missense	NM_019844:p.G478V
12820	12	29601162	29601162	C	T	C	Y	exonic	TMTC1	missense	NM_175861:p.G416E
12820	12	40786102	40786102	C	A	C	M	exonic	GXYLT1	missense	NM_173601:p.D217Y
12820	12	54915666	54915666	C	A	C	M	exonic	SLC39A5	missense	NM_001135195:p.P287Q
12820	12	64143341	64143341	C	T	C	Y	exonic	MSRB3	missense	NM_001031679:p.P177L
12820	12	77086688	77086688	G	C	G	S	exonic	NAV3	missense	NM_014903:p.R1631T
12820	12	117135179	117135179	C	A	C	M	exonic	TAOK3	missense	NM_016281:p.D248Y
12820	12	122750235	122750235	A	G	A	R	exonic	TCTN2	missense	NM_024809:p.I513V
12820	14	19366347	19366347	G	T	G	K	exonic	OR4N2	missense	NM_001004723:p.K300N
12820	14	23494101	23494101	C	T	C	Y	exonic	DHR54	missense	NM_021004:p.A49V
12820	14	41426077	41426077	G	T	G	K	exonic	LRFN5	missense	NM_152447:p.V167F
12820	14	50358458	50358458	T	G	T	K	exonic	NIN	missense	NM_016350:p.T23P
12820	14	59143754	59143754	A	T	A	W	splicing	RTN1	NA	NA
12820	14	63589005	63589005	A	T	A	W	exonic	SYNE2	missense	NM_182914:p.H2874L
12820	14	65549663	65549663	G	T	G	K	intergenic	NA	NA	NA
12820	14	72482460	72482460	A	C	A	M	exonic	DCAF4	missense	NM_181340:p.H117P
12820	15	71334094	71334094	C	T	C	Y	exonic	NEO1	nonsense	NM_002499:p.Q655X
12820	15	76612781	76612781	G	A	G	R	exonic	AGPHD1	missense	NM_001013619:p.S279N
12820	15	90464749	90464749	A	T	A	W	exonic	SLCO3A1	missense	NM_001145044:p.I354F
12820	16	46815708	46815708	T	A	T	W	exonic	ABCC11	missense	NM_032583:p.S177C
12820	16	82741448	82741448	G	T	G	K	splicing	LRRCS0	missense	NM_178452:p.G118C
12820	17	632668	632668	G	A	G	R	exonic	RNMTL1	silent	NM_018146:p.G100G
12820	17	2213567	2213567	G	T	G	K	exonic	SGSM2	missense	NM_014853:p.R244L
12820	17	7519119	7519119	T	C	T	Y	exonic	TP53	missense	NM_001126117:p.H47R
12820	17	31521436	31521436	A	T	A	W	exonic	TBC1D3B	missense	NM_001001417:p.L198H
12820	17	45250192	45250192	G	C	G	S	exonic	MYST2	missense	NM_001199158:p.R156S
12820	17	49255984	49255984	C	A	C	M	exonic	KIF2B	missense	NM_032559:p.H197Q
12820	17	72712973	72712973	A	T	A	W	exonic	SEC14L1	missense	NM_003003:p.E373D
12820	18	21060321	21060321	A	C	A	M	exonic	ZNF521	missense	NM_015461:p.M520R
12820	18	28514368	28514368	G	T	G	K	splicing	KLHL14	NA	NA
12820	18	38808093	38808093	G	A	G	R	exonic	RIT2	nonsense	NM_002930:p.Q60X
12820	19	19499853	19499853	C	T	C	Y	exonic	NDUFA13	missense	NM_015965:p.P118L
12820	19	23907135	23907135	A	T	A	W	intergenic	NA	NA	NA
12820	19	38955803	38955803	T	A	T	W	exonic	CHST8	missense	NM_001127895:p.Y424N
12820	19	44590416	44590416	C	T	C	Y	exonic	ZFP36	missense	NM_003407:p.P73L
12820	19	47412944	47412944	T	A	T	W	exonic	DEDD2	missense	NM_133328:p.D19V
12820	19	49228281	49228281	A	T	A	W	exonic	ZNF222	missense	NM_013360:p.Q205L
12820	19	52536000	52536000	G	A	G	R	exonic	GPR77	missense	NM_018485:p.R35H
12820	19	52688201	52688201	C	T	C	Y	exonic	NAPA	missense	NM_003827:p.E155K
12820	19	53614677	53614677	A	G	A	R	exonic	GRIN2D	missense	NM_000836:p.I629V
12820	19	57561345	57561345	C	T	C	Y	exonic	ZNF610	missense	NM_173530:p.S301L
12820	19	58359937	58359937	T	A	T	W	exonic	ZNF665	nonsense	NM_024733:p.K540X
12820	19	58650422	58650422	A	G	A	R	exonic	ZNF761	missense	NM_001008401:p.I284V
12820	19	60144146	60144146	C	A	C	M	exonic	NLRP7	missense	NM_206828:p.G106V
12820	20	23914302	23914302	A	T	A	W	splicing	GGTLC1	NA	NA
12820	22	23228113	23228113	G	A	G	R	exonic	UPB1	missense	NM_016327:p.R99H
12820	22	49024298	49024298	C	A	C	M	exonic	TUBGCP6	missense	NM_020461:p.D240Y
12820	X	54337998	54337998	G	T	G	K	exonic	WNK3	missense	NM_020922:p.S469Y
12820	X	65741067	65741067	G	C	G	S	exonic	EDA2R	nonsense	NM_021783:p.Y91X
12820	X	85954789	85954789	G	T	G	K	splicing	DACH2	missense	NM_001139515:p.G297C
12820	X	90977700	90977700	G	T	G	K	splicing	PCDH11X	NA	NA
12820	X	91020338	91020338	-	T	G	*/+T	exonic	PCDH11X	FS_ins	NM_032969:p.V815fs
12820	X	110442549	110442549	G	T	G	K	exonic	DCX	missense	NM_001195553:p.P340T
12820	X	142424567	142424567	G	T	G	K	exonic	SPANXN3	missense	NM_001009609:p.L57I
12820	X	142794905	142794905	C	A	C	M	exonic	UBE2NL	missense	NM_001012989:p.Q13K
12924	1	19311641	19311641	C	A	C	M	exonic	UBR4	missense	NM_020765:p.R3922L
12924	1	33843582	33843582	C	G	C	S	exonic	CSMD2	missense	NM_052896:p.G2142A
12924	1	36698961	36698961	C	G	C	S	exonic	MRP515	missense	NM_031280:p.E102Q
12924	1	39679531	39679531	G	C	G	S	exonic	MACF1	missense	NM_033044:p.E4650Q
12924	1	67076055	67076055	C	A	C	M	exonic	WDR78	missense	NM_024763:p.V503F
12924	1	84650642	84650642	C	A	C	M	exonic	DNASE2B	missense	NM_021233:p.N190K
12924	1	103222316	103222316	C	A	C	M	exonic	COL11A1	missense	NM_001854:p.G841V
12924	1	107669038	107669038	C	G	C	S	exonic	NTNG1	nonsense	NM_001113228:p.Y286X
12924	1	110061543	110061543	G	T	G	K	exonic	GSTM5	missense	NM_000851:p.G210V
12924	1	150547961	150547961	G	T	G	K	exonic	FLG	missense	NM_002016:p.H2009N
12924	1	167842839	167842839	G	T	G	K	exonic	SELP	missense	NM_003005:p.N497K
12924	1	201406901	201406901	T	A	T	W	exonic	MYBPH	missense	NM_004997:p.N282Y
12924	1	201719142	201719142	C	G	C	S	exonic	PRELP	missense	NM_201348:p.I69M
12924	1	202402011	202402011	G	T	G	K	exonic	REN	missense	NM_000537:p.L12M
12924	1	202663963	202663963	C	A	C	M	exonic	PIK3C2B	missense	NM_002646:p.L1469F
12924	1	202854551	202854551	G	T	G	K	exonic	LRRN2	missense	NM_006338:p.A398E
12924	1	218901829	218901829	A	T	A	W	exonic	MARK1	nonsense	NM_018650:p.K696X
12924	1	227652965	227652965	C	G	C	S	exonic	NUP133	missense	NM_018230:p.C1037S
12924	1	238559029	238559029	G	T	G	K	exonic	FMN2	nonsense	NM_020066:p.E1416X
12924	1	245721475	245721475	C	A	C	M	exonic	OR2W5	nonsense	NM_001004698:p.C141X
12924	1	245721476	245721476	C	G	C	S	exonic	OR2W5	missense	NM_001004698:p.L142V
12924	1	245902100	245902100	G	T	G	K	exonic	OR13G1	missense	NM_001005487:p.F289L
12924	1	245988273	245988273	G	C	G	S	exonic	OR1C1	nonsense	NM_012353:p.S20X
12924	1	246126121	246126121	G	T	G	K	exonic	OR2W3	missense	NM_001001957:p.V204L

12924	1	246636988	246636988	G	T	G	K	exonic	OR2T1	missense	NM_030904:p.R357M
12924	1	246636989	246636989	G	T	G	K	exonic	OR2T1	missense	NM_030904:p.R357S
12924	2	15365868	15365868	C	A	C	M	exonic	NBAS	missense	NM_015909:p.A1574S
12924	2	15437187	15437187	C	A	C	M	exonic	NBAS	missense	NM_015909:p.D1194Y
12924	2	15437394	15437394	T	G	T	K	exonic	NBAS	missense	NM_015909:p.S1125R
12924	2	44282638	44282638	G	A	G	R	exonic	PPM1B	missense	NM_001033557:p.D266N
12924	2	48541840	48541840	C	T	C	Y	exonic	KLRAQ1	missense	NM_152994:p.S220L
12924	2	53978955	53978955	C	A	C	M	exonic	PSME4	nonsense	NM_014614:p.E1155X
12924	2	71045120	71045120	G	A	G	R	exonic	ATP6V1B1	missense	NM_001692:p.M396I
12924	2	86938803	86938803	G	T	G	K	exonic	CD8B	missense	NM_172213:p.S97R
12924	2	127900247	127900247	A	T	A	W	exonic	PROC	missense	NM_000312:p.T218S
12924	2	136291413	136291413	C	T	C	Y	exonic	LCT	missense	NM_002299:p.G559S
12924	2	165692685	165692685	C	A	C	M	exonic	SCN3A	missense	NM_001081676:p.R983I
12924	2	167812135	167812135	C	A	C	M	exonic	XIRP2	missense	NM_152381:p.T1996N
12924	2	172530142	172530142	C	A	C	M	exonic	HAT1	missense	NM_003642:p.P116Q
12924	2	182251148	182251148	G	A	G	R	exonic	NEUROD1	missense	NM_002500:p.P229S
12924	2	182720125	182720125	C	A	C	M	splicing	PDE1A	NA	NA
12924	2	185511661	185511661	T	C	T	Y	exonic	ZNF804A	missense	NM_194250:p.I1098T
12924	2	201172637	201172637	G	T	G	K	exonic	AOX1	missense	NM_001159:p.G120V
12924	2	201980520	201980520	A	T	A	W	exonic	TRAK2	missense	NM_015049:p.L46Q
12924	2	210871417	210871417	C	G	C	S	exonic	MYL1	missense	NM_079422:p.R48S
12924	2	216001148	216001148	C	G	C	S	splicing	FN1	missense	NM_054034:p.G282R
12924	2	224170490	224170490	C	A	C	M	exonic	SCG2	missense	NM_003469:p.M585I
12924	2	239701741	239701741	C	G	C	S	exonic	HDAC4	missense	NM_006037:p.R574P
12924	3	16615067	16615067	C	A	C	M	exonic	DAZL	nonsense	NM_001190811:p.E36X
12924	3	42702544	42702544	G	T	G	K	exonic	KBTBD5	missense	NM_152393:p.D144Y
12924	3	43364914	43364914	G	A	G	R	exonic	SNRK	missense	NM_017719:p.R720Q
12924	3	46038131	46038131	G	T	G	K	exonic	XCR1	missense	NM_005283:p.L105I
12924	3	46374872	46374872	G	T	G	K	exonic	CCR2	missense	NM_001123041:p.D284Y
12924	3	47887307	47887307	C	G	C	S	splicing	MAP4	silent	NM_002375:p.R953R
12924	3	58343344	58343344	A	T	A	W	exonic	PXK	missense	NM_017771:p.I89L
12924	3	112313692	112313692	G	T	G	K	exonic	PVRL3	missense	NM_015480:p.G96C
12924	3	122898003	122898003	T	A	T	W	exonic	GOLGB1	nonsense	NM_004487:p.K1348X
12924	3	137528753	137528753	C	A	C	M	exonic	PCCB	missense	NM_000532:p.A422E
12924	3	156317039	156317039	G	T	G	K	exonic	MME	nonsense	NM_007288:p.E146X
12924	3	157343737	157343737	C	A	C	M	exonic	KCNAB1	missense	NM_003471:p.L26I
12924	3	166191937	166191937	C	T	C	Y	exonic	SI	missense	NM_001041:p.G1669E
12924	3	187852781	187852781	C	A	C	M	exonic	FETUB	missense	NM_014375:p.N272K
12924	3	198723629	198723629	C	G	C	S	exonic	BDH1	missense	NM_203315:p.R189P
12924	4	40046028	40046028	C	-	T	*/-C	exonic	CHRNA9	FS_del	NM_017581:c.738_738delC
12924	4	45755269	45755269	G	T	G	K	exonic	GABRG1	missense	NM_173536:p.H251Q
12924	4	48331121	48331121	C	A	C	M	exonic	FRYL	missense	NM_015030:p.A22S
12924	4	55665621	55665621	G	A	G	R	exonic	KDR	nonsense	NM_002253:p.Q645X
12924	4	57209659	57209659	C	A	C	M	exonic	HOPX	missense	NM_032495:p.R87I
12924	4	106578638	106578638	C	A	C	M	exonic	PPA2	missense	NM_176869:p.W149L
12924	4	126592756	126592756	G	T	G	K	exonic	FAT4	missense	NM_024582:p.S3712I
12924	4	140528680	140528680	G	A	G	R	exonic	NAA15	missense	NM_057175:p.E865K
12924	4	145848821	145848821	C	A	C	M	exonic	HHIP	missense	NM_022475:p.N403K
12924	4	155939392	155939392	C	T	C	Y	exonic	RBM46	nonsense	NM_144979:p.Q210X
12924	4	164613809	164613809	C	G	C	S	exonic	TKTL2	missense	NM_032136:p.L176F
12924	4	167135773	167135773	C	T	C	Y	exonic	TLL1	missense	NM_012464:p.P209S
12924	4	177286942	177286942	C	G	C	S	exonic	WDR17	missense	NM_181265:p.L284V
12924	5	24523857	24523857	G	C	G	S	exonic	CDH10	missense	NM_001190450:p.A250G
12924	5	45298623	45298623	G	T	G	K	exonic	HCN1	missense	NM_021072:p.N610K
12924	5	50164423	50164423	G	T	G	K	exonic	PARP8	missense	NM_001178056:p.S720I
12924	5	67625011	67625021	CAGTA	-	T	*/-	exonic	PIK3R1	FS_del	NM_181504:c.433_443del
12924	5	112139224	112139224	G	T	G	K	splicing	APC	NA	NA
12924	5	112139225	112139225	G	T	G	K	splicing	APC	missense	NM_000038:p.R141S
12924	5	140461183	140461183	C	T	C	Y	exonic	PCDH3	missense	NM_018937:p.P256S
12924	5	140496128	140496128	G	T	G	K	exonic	PCDH5	missense	NM_015669:p.A310S
12924	5	141338059	141338059	C	G	C	S	exonic	RNF14	missense	NM_183401:p.A105G
12924	5	152853684	152853684	G	C	G	S	exonic	GRIA1	missense	NM_000827:p.G29A
12924	5	154231535	154231535	G	A	G	R	exonic	CNOT8	missense	NM_004779:p.E176K
12924	5	161256709	161256709	G	T	G	K	exonic	GABRA1	missense	NM_001127648:p.K358N
12924	5	161256710	161256710	G	T	G	K	exonic	GABRA1	missense	NM_001127648:p.D359Y
12924	5	168032882	168032882	C	A	C	M	exonic	SLIT3	missense	NM_003062:p.S1240I
12924	5	168109208	168109208	A	C	A	M	exonic	SLIT3	missense	NM_003062:p.S662A
12924	5	169466096	169466096	G	T	G	K	exonic	FOXI1	missense	NM_144769:p.R186L
12924	5	175958410	175958410	C	G	C	S	exonic	GPRIN1	missense	NM_052899:p.R344S
12924	5	175958411	175958411	C	A	C	M	exonic	GPRIN1	missense	NM_052899:p.R344M
12924	5	178977143	178977143	C	G	C	S	exonic	HNRNPH1	missense	NM_005520:p.M345I
12924	6	4661105	4661105	A	T	A	W	ncRNA	CDYL	NA	NA
12924	6	4661106	4661106	G	T	G	K	ncRNA	CDYL	NA	NA
12924	6	10047536	10047536	C	T	C	Y	intergenic	NA	NA	NA
12924	6	21339140	21339140	G	C	G	S	exonic	CDKAL1	missense	NM_017774:p.R544T
12924	6	29473063	29473063	C	A	C	M	exonic	OR12D2	missense	NM_013936:p.T203K
12924	6	33025633	33025633	C	A	C	M	exonic	HLA-DMA	missense	NM_006120:p.A129S
12924	6	42345060	42345060	C	A	C	M	exonic	TRERF1	nonsense	NM_033502:p.G83X
12924	6	42345061	42345061	C	A	C	M	exonic	TRERF1	missense	NM_033502:p.Q82H

12924	6	43043264	43043264	C	A	C	M	exonic	PEX6	missense	NM_000287:p.M568I
12924	6	43043265	43043265	A	T	A	W	exonic	PEX6	missense	NM_000287:p.M568K
12924	6	43751113	43751113	C	A	C	M	intronic	MRPS18A	NA	NA
12924	6	64453671	64453671	A	T	A	W	exonic	PHF3	missense	NM_015153:p.I697L
12924	6	70934808	70934808	C	A	C	M	exonic	COL19A1	missense	NM_001858:p.P841T
12924	6	94022361	94022361	T	C	T	Y	exonic	EPHA7	missense	NM_004440:p.N763S
12924	6	132227718	132227718	T	C	T	Y	exonic	ENPP1	missense	NM_006208:p.Y371H
12924	6	132980509	132980509	C	A	C	M	exonic	TAAR2	missense	NM_001033080:p.G177W
12924	6	136510209	136510209	C	A	C	M	exonic	PDE7B	missense	NM_018945:p.T65N
12924	6	144851501	144851501	G	-	A	*-/G	splicing	UTRN	NA	NA
12924	6	151936038	151936038	G	T	G	K	exonic	C6orf97	nonsense	NM_025059:p.E271X
12924	7	20749080	20749080	G	T	G	K	exonic	ABC85	missense	NM_001163941:p.R1027L
12924	7	36638166	36638166	C	T	C	Y	splicing	AOAH	NA	NA
12924	7	50564455	50564455	G	C	G	S	exonic	DDC	missense	NM_000790:p.P172R
12924	7	51062922	51062922	C	A	C	M	exonic	COBL	missense	NM_015198:p.G1122V
12924	7	55878271	55878271	T	A	T	W	exonic	41166	missense	NM_207366:p.Y139F
12924	7	63806231	63806231	C	T	C	Y	exonic	ZNF107	missense	NM_016220:p.S705L
12924	7	80123924	80123924	G	T	G	K	exonic	CD36	missense	NM_000072:p.V85F
12924	7	82835117	82835117	G	T	G	K	exonic	SEMA3E	missense	NM_001178129:p.N623K
12924	7	91550779	91550779	G	C	G	S	exonic	AKAP9	missense	NM_005751:p.L2840F
12924	7	98999458	98999458	G	A	G	R	exonic	ZNF655	missense	NM_001009958:p.S58N
12924	7	107429315	107429315	C	T	C	Y	exonic	LAMB1	missense	NM_002291:p.R46Q
12924	7	128886638	128886638	G	T	G	K	exonic	FAM40B	missense	NM_001134336:p.S462I
12924	7	140960439	140960439	A	C	A	M	exonic	AGK	missense	NM_018238:p.T139P
12924	7	156219709	156219709	A	G	A	R	exonic	LMBR1	missense	NM_022458:p.L254P
12924	8	655883	655883	C	A	C	M	exonic	ERICH1	missense	NM_207332:p.Q49H
12924	8	12996689	12996689	T	A	T	W	exonic	DLC1	missense	NM_006094:p.E722V
12924	8	19863964	19863964	G	A	G	R	exonic	LPL	missense	NM_000237:p.V461I
12924	8	23051360	23051360	C	A	C	M	exonic	TNFRSF10D	missense	NM_003840:p.D377Y
12924	8	35521564	35521564	C	A	C	M	intronic	UNC5D	NA	NA
12924	8	73104745	73104745	A	T	A	W	exonic	TRPA1	missense	NM_007332:p.V961D
12924	8	87311127	87311127	G	T	G	K	exonic	SLC7A13	missense	NM_138817:p.L166M
12924	8	107792181	107792181	G	T	G	K	exonic	OXR1	missense	NM_018002:p.V594L
12924	8	111054016	111054016	C	A	C	M	exonic	KCNV1	missense	NM_014379:p.G213V
12924	8	131931118	131931118	C	G	C	S	exonic	ADCY8	missense	NM_001115:p.C775S
12924	8	133968378	133968378	G	C	G	S	exonic	TG	missense	NM_003235:p.D527H
12924	8	133968397	133968397	G	T	G	K	exonic	TG	missense	NM_003235:p.G533V
12924	8	134176567	134176567	C	A	C	M	exonic	TG	missense	NM_003235:p.S2446Y
12924	9	6318795	6318795	C	A	C	M	exonic	TPD52L3	missense	NM_001001875:p.T67N
12924	9	32478060	32478060	G	C	G	S	exonic	DDX58	missense	NM_014314:p.I365M
12924	9	98054994	98054994	A	T	A	W	exonic	HSD17B3	missense	NM_000197:p.S99R
12924	9	102042229	102042229	G	T	G	K	exonic	INVS	missense	NM_183245:p.A228S
12924	9	107158366	107158366	G	T	G	K	exonic	SLC44A1	missense	NM_080546:p.A185S
12924	9	110664742	110664742	G	A	G	R	exonic	ACTL7A	missense	NM_006687:p.A107T
12924	9	138516312	138516312	C	A	C	M	exonic	NOTCH1	nonsense	NM_017617:p.E1812X
12924	9	139578715	139578715	T	A	T	W	exonic	WDR85	missense	NM_138778:p.K314M
12924	10	1056809	1056809	G	T	G	K	exonic	IDI2	missense	NM_033261:p.H88Q
12924	10	6546296	6546296	T	A	T	W	exonic	PRKCQ	missense	NM_006257:p.D477V
12924	10	14856374	14856374	C	A	C	M	exonic	FAM107B	missense	NM_031453:p.A99S
12924	10	18282459	18282459	G	A	G	R	exonic	SLC39A12	missense	NM_152725:p.G83E
12924	10	24914280	24914280	C	G	C	S	exonic	ARHGAP21	missense	NM_020824:p.L1648F
12924	10	53128238	53128238	G	A	G	R	exonic	CSTF2T	nonsense	NM_015235:p.Q360X
12924	10	60243792	60243792	G	A	G	R	intronic	BICC1	NA	NA
12924	10	67418483	67418483	A	T	A	W	exonic	CTNNA3	missense	NM_013266:p.D746E
12924	10	69572807	69572807	C	A	C	M	exonic	MYPN	missense	NM_032578:p.T336K
12924	10	70177149	70177149	A	G	A	R	exonic	CCAR1	missense	NM_018237:p.T216A
12924	10	70695406	70695406	C	A	C	M	exonic	HKDC1	missense	NM_025130:p.T811K
12924	10	87474302	87474302	C	G	C	S	exonic	GRID1	missense	NM_017551:p.E549Q
12924	10	96437927	96437927	G	T	G	K	exonic	CYP2C18	missense	NM_001128925:p.M129I
12924	10	99351673	99351673	G	A	G	R	exonic	DHPSL	missense	NM_138413:p.C257Y
12924	10	134874980	134874980	G	T	G	K	exonic	KNDC1	missense	NM_152643:p.A1325S
12924	11	4747630	4747630	G	T	G	K	exonic	OR51F1	missense	NM_001004752:p.P32T
12924	11	4901472	4901472	C	A	C	M	exonic	OR51G1	missense	NM_001005237:p.R225L
12924	11	5037138	5037138	C	T	C	Y	exonic	OR52E2	missense	NM_001005164:p.C99Y
12924	11	5098745	5098745	G	T	G	K	exonic	OR52A4	missense	NM_001005222:p.L214I
12924	11	5755928	5755928	C	A	C	M	exonic	OR52N5	missense	NM_001001922:p.L171F
12924	11	13335039	13335039	C	A	C	M	intronic	ARNTL	NA	NA
12924	11	26525602	26525602	G	T	G	K	exonic	ANO3	missense	NM_031418:p.L406F
12924	11	26676542	26676542	G	C	G	S	exonic	SLC5A12	nonsense	NM_178498:p.S313X
12924	11	36379333	36379333	C	T	C	Y	exonic	PRR5L	missense	NM_001160167:p.S29F
12924	11	36551982	36551982	C	A	C	M	exonic	RAG1	missense	NM_000448:p.H184Q
12924	11	56857003	56857003	C	A	C	M	intronic	SSRP1	NA	NA
12924	11	56857011	56857011	C	A	C	M	exonic	SSRP1	nonsense	NM_003146:p.E179X
12924	11	58358584	58358584	A	C	A	M	exonic	GLYATL2	missense	NM_145016:p.V260G
12924	11	65123444	65123444	G	T	G	K	exonic	MAP3K11	missense	NM_002419:p.R735S
12924	11	75741084	75741084	T	A	T	W	exonic	PRKRIR	missense	NM_004705:p.E253V
12924	11	88222759	88222759	G	C	G	S	exonic	GRM5	missense	NM_000842:p.R292G
12924	11	88551511	88551511	A	C	A	M	exonic	TYR	missense	NM_000372:p.T248P
12924	11	92354351	92354351	G	T	G	K	exonic	MTNR1B	missense	NM_005959:p.G105V

12924	11	113440281	113440281	C	T	C	Y	exonic	ZBTB16	missense	NM_001018011:p.S350F
12924	11	122280229	122280229	G	T	G	K	exonic	C11orf63	missense	NM_199124:p.R244L
12924	11	123398954	123398954	G	A	G	R	exonic	OR10G9	missense	NM_001001953:p.A9T
12924	11	133618399	133618399	G	C	G	S	splicing	VPS26B	NA	NA
12924	12	10133019	10133019	A	T	A	W	exonic	CLEC1A	missense	NM_016511:p.L62Q
12924	12	15631135	15631135	C	A	C	M	exonic	PTPRO	missense	NM_030668:p.T259N
12924	12	21358771	21358771	A	T	A	W	exonic	SLCO1A2	missense	NM_021094:p.L105Q
12924	12	38954937	38954937	G	T	G	K	exonic	LRRK2	missense	NM_198578:p.G606C
12924	12	50570772	50570772	T	A	T	W	exonic	ANKRD33	missense	NM_001130015:p.Y134N
12924	12	70316946	70316946	C	A	C	M	exonic	ZFC3H1	missense	NM_144982:p.R629L
12924	12	77036028	77036028	C	T	C	Y	exonic	NAV3	missense	NM_014903:p.H954Y
12924	12	77036052	77036052	A	T	A	W	exonic	NAV3	nonsense	NM_014903:p.K962X
12924	12	79763775	79763775	T	A	T	W	exonic	LIN7A	missense	NM_004664:p.E116D
12924	12	81775077	81775077	G	A	G	R	exonic	TMTC2	missense	NM_152588:p.G81R
12924	12	87084352	87084352	G	A	G	R	exonic	TMTC3	nonsense	NM_181783:p.W304X
12924	12	99275387	99275387	G	T	G	K	exonic	SLC17A8	missense	NM_001145288:p.L29F
12924	12	109652806	109652806	T	C	T	Y	exonic	PPP1CC	missense	NM_002710:p.Y110C
12924	12	119060141	119060141	G	A	G	R	exonic	GCN1L1	missense	NM_006836:p.P2114S
12924	13	24322579	24322579	G	A	G	R	exonic	RNF17	missense	NM_031277:p.E1068K
12924	13	25049222	25049222	G	A	G	R	exonic	ATP8A2	missense	NM_016529:p.M576I
12924	13	34947750	34947750	A	C	A	M	exonic	MAB21L1	missense	NM_005584:p.C176G
12924	13	38348391	38348391	G	T	G	K	exonic	FREM2	missense	NM_207361:p.D2806Y
12924	13	38349381	38349381	G	T	G	K	splicing	FREM2	NA	NA
12924	13	69212669	69212669	G	T	G	K	exonic	KLHL1	missense	NM_020866:p.P554T
12924	13	98137885	98137885	C	G	C	S	exonic	SLC15A1	missense	NM_005073:p.C593S
12924	13	100512332	100512332	G	A	G	R	exonic	NALCN	missense	NM_052867:p.R1582C
12924	14	22956241	22956241	G	A	G	R	exonic	MYH7	missense	NM_000257:p.H1494Y
12924	14	23616649	23616649	C	A	C	M	exonic	CPNE6	missense	NM_006032:p.P515H
12924	14	23915059	23915059	G	C	G	S	exonic	NFATC4	missense	NM_001136022:p.K719N
12924	14	50786021	50786021	G	T	G	K	exonic	TMX1	missense	NM_030755:p.G192V
12924	14	69314997	69314997	C	T	C	Y	exonic	SLC10A1	missense	NM_003049:p.C250Y
12924	14	70060165	70060165	G	T	G	K	exonic	ADAM20	missense	NM_003814:p.Q405K
12924	14	76345539	76345539	T	C	T	Y	exonic	ANGEL1	missense	NM_015305:p.S89G
12924	14	80321272	80321272	C	A	C	M	exonic	C14orf145	missense	NM_152446:p.R644L
12924	14	87477507	87477507	C	A	C	M	exonic	GALC	missense	NM_000153:p.V607F
12924	14	93113962	93113962	G	T	G	K	exonic	KIAA1409	missense	NM_020818:p.G568C
12924	14	94025772	94025772	T	C	T	Y	exonic	SERPINA12	missense	NM_173850:p.I331V
12924	14	95883411	95883411	C	A	C	M	exonic	ATG2B	missense	NM_018036:p.E61D
12924	14	98252409	98252409	G	T	G	K	exonic	C14orf177	missense	NM_182560:p.S43I
12924	15	23498271	23498271	C	G	C	S	exonic	ATP10A	missense	NM_024490:p.G882A
12924	15	38086513	38086513	C	G	C	S	exonic	EIF2AK4	missense	NM_001013703:p.P1121R
12924	15	38096102	38096102	G	T	G	K	exonic	EIF2AK4	missense	NM_001013703:p.K1289N
12924	15	41678398	41678398	G	T	G	K	exonic	CKMT1B	missense	NM_020990:p.G365C
12924	15	45840900	45840900	C	G	C	S	exonic	SEMA6D	missense	NM_153617:p.P143A
12924	15	62753289	62753289	A	T	A	W	exonic	ZNF609	missense	NM_015042:p.T395S
12924	15	63411498	63411498	C	A	C	M	splicing	IGDCC3	NA	NA
12924	15	68766961	68766961	C	A	C	M	exonic	UACA	missense	NM_001008224:p.D179Y
12924	15	69420898	69420898	A	T	A	W	intronic	THSD4	NA	NA
12924	15	70070541	70070541	C	T	C	Y	exonic	MYO9A	missense	NM_006901:p.R560H
12924	15	77542569	77542569	C	G	C	S	exonic	KIAA1024	missense	NM_015206:p.L802V
12924	15	81723674	81723674	C	A	C	M	exonic	BNC1	missense	NM_001717:p.V445L
12924	16	4768002	4768002	T	A	T	W	splicing	41164	NA	NA
12924	16	11737413	11737413	C	A	C	M	exonic	TXNDC11	missense	NM_015914:p.R144S
12924	16	20555657	20555657	C	T	C	Y	exonic	ACSM1	missense	NM_052956:p.D402N
12924	16	31674398	31674398	T	A	T	W	intronic	ZNF720	NA	NA
12924	16	45175061	45175061	C	T	C	Y	exonic	SHCBP1	missense	NM_024745:p.D521N
12924	16	45263815	45263815	T	C	T	Y	exonic	VPS35	missense	NM_018206:p.N411D
12924	16	46699933	46699933	G	T	G	K	exonic	ABCC12	missense	NM_033226:p.H764N
12924	16	48227134	48227134	G	C	G	S	exonic	ZNF423	missense	NM_015069:p.R1144G
12924	16	54457380	54457380	C	A	C	M	exonic	CES7	missense	NM_001190158:p.S263I
12924	16	54465390	54465390	A	C	A	M	exonic	CES7	missense	NM_001190158:p.V74G
12924	16	56158919	56158919	G	C	G	S	exonic	GPR114	missense	NM_153837:p.A246P
12924	16	63564319	63564319	G	T	G	K	exonic	CDH11	missense	NM_001797:p.A460E
12924	16	68333960	68333960	G	A	G	R	exonic	NOB1	missense	NM_014062:p.H339Y
12924	16	70699899	70699899	G	T	G	K	exonic	DHX38	missense	NM_014003:p.K1049N
12924	16	70699900	70699900	G	T	G	K	exonic	DHX38	missense	NM_014003:p.D1050Y
12924	17	1465068	1465068	C	T	C	Y	exonic	SLC43A2	missense	NM_152346:p.A127T
12924	17	7520196	7520196	G	-	C	*/-G	exonic	TP53	FS_del	NM_001126114:c.216_216delC
12924	17	10341200	10341200	C	A	C	M	exonic	MYH1	nonsense	NM_005963:p.G1523X
12924	17	10370759	10370759	G	A	G	R	exonic	MYH2	nonsense	NM_017534:p.Q1357X
12924	17	15905731	15905731	G	A	G	R	exonic	NCOR1	nonsense	NM_006311:p.Q1864X
12924	17	69817009	69817009	G	T	G	K	exonic	DNAI2	missense	NM_001172810:p.D412Y
12924	18	7070396	7070396	C	T	C	Y	exonic	LAMA1	missense	NM_005559:p.C41Y
12924	18	30652190	30652190	C	G	C	S	exonic	DTNA	missense	NM_001128175:p.C258W
12924	18	43820733	43820733	C	A	C	M	exonic	ZBTB7C	missense	NM_001039360:p.L248F
12924	18	71126631	71126631	G	T	G	K	exonic	TSHZ1	missense	NM_005786:p.R49L
12924	18	71127923	71127923	G	T	G	K	exonic	TSHZ1	nonsense	NM_005786:p.E480X
12924	19	3930985	3930985	C	G	C	S	exonic	EEF2	missense	NM_001961:p.D476H
12924	19	6630508	6630508	C	A	C	M	splicing	C3	NA	NA

12924	19	10471422	10471422	G	C	G	S	exonic	KEAP1	missense	NM_012289:p.H96Q
12924	19	12619281	12619281	G	T	G	K	exonic	MAN2B1	missense	NM_000528:p.S932R
12924	19	15512319	15512319	C	A	C	M	exonic	CYP4F22	missense	NM_173483:p.Q244K
12924	19	18761034	18761034	G	T	G	K	exonic	COMP	missense	NM_000095:p.P155T
12924	19	19232687	19232687	C	T	C	Y	exonic	HAPLN4	missense	NM_023002:p.R140H
12924	19	23628706	23628706	C	A	C	M	exonic	ZNF675	missense	NM_138330:p.G290V
12924	19	23628707	23628707	C	A	C	M	exonic	ZNF675	missense	NM_138330:p.G290C
12924	19	45700195	45700195	G	T	G	K	exonic	SPTBN4	missense	NM_020971:p.A382S
12924	19	48103881	48103881	C	A	C	M	intronic	PSG6	NA	NA
12924	19	55989586	55989586	C	-	G	*-/C	exonic	ACPT	FS_del	NM_033068:c.922_922delC
12924	19	59451800	59451800	C	A	C	M	exonic	LILRB5	missense	NM_006840:p.W191C
12924	19	61394027	61394027	T	A	T	W	exonic	ZSCAN5B	nonsense	NM_001080456:p.K244X
12924	19	63497398	63497398	G	T	G	K	exonic	ZNF8	missense	NM_021089:p.G138W
12924	20	2359613	2359613	T	A	T	W	exonic	TGM6	missense	NM_198994:p.V636E
12924	20	24942664	24942664	G	T	G	K	exonic	ACSS1	missense	NM_032501:p.A462E
12924	20	25005005	25005005	G	T	G	K	exonic	VSX1	missense	NM_014588:p.S330R
12924	20	34493939	34493939	C	-	G	*-/C	exonic	DLGAP4	FS_del	NM_014902:c.405_405delC
12924	20	47297294	47297294	C	T	C	Y	exonic	ZNFX1	missense	NM_021035:p.E1892K
12924	20	51305004	51305004	G	T	G	K	exonic	TSHZ2	missense	NM_173485:p.G534W
12924	20	54257266	54257266	C	T	C	Y	UTR5	MC3R	NA	NA
12924	20	60773641	60773641	C	T	C	Y	exonic	SLCO4A1	missense	NM_016354:p.S707F
12924	21	13935567	13935567	C	A	C	M	exonic	POTED	missense	NM_174981:p.L522I
12924	21	27224160	27224160	G	T	G	K	exonic	ADAMT55	nonsense	NM_007038:p.S714X
12924	21	30719613	30719613	A	C	A	M	exonic	KRTAP13-3	nonsense	NM_181622:p.Y163X
12924	21	31041262	31041262	C	A	C	M	exonic	KRTAP21-2	nonsense	NM_181617:p.G44X
12924	21	32960303	32960303	C	G	C	S	exonic	SYNJ1	missense	NM_001160306:p.D651H
12924	21	43774123	43774123	C	T	C	Y	exonic	HSF2BP	missense	NM_007031:p.R315H
12924	21	44212356	44212356	C	A	C	M	exonic	AGPAT3	missense	NM_001037553:p.L94I
12924	21	44824720	44824720	G	T	G	K	exonic	KRTAP10-5	missense	NM_198694:p.A55D
12924	22	15452999	15452999	G	T	G	K	exonic	CTSL2	missense	NM_014406:p.P148T
12924	22	20367502	20367502	C	T	C	Y	exonic	PPIL2	missense	NM_148176:p.S170F
12924	22	39079039	39079039	G	T	G	K	exonic	ADSL	missense	NM_001123378:p.R125I
12924	X	16080634	16080634	C	G	C	S	exonic	GRPR	missense	NM_005314:p.S367C
12924	X	41087939	41087939	G	T	G	K	exonic	DDX3X	nonsense	NM_001193416:p.G229X
12924	X	46954012	46954012	A	T	A	W	exonic	UBA1	missense	NM_003334:p.N662I
12924	X	48535784	48535784	C	A	C	M	exonic	GATA1	missense	NM_002049:p.Q237K
12924	X	48535785	48535785	A	G	A	R	exonic	GATA1	missense	NM_002049:p.Q237R
12924	X	54803021	54803021	G	T	G	K	exonic	ITIH5L	missense	NM_198510:p.S323Y
12924	X	70389164	70389164	C	A	C	M	splicing	ZMYM3	nonsense	NM_001171163:p.G223X
12924	X	83258801	83258801	C	G	C	S	exonic	RP56KA6	missense	NM_014496:p.G291A
12924	X	129346408	129346408	C	T	C	Y	exonic	GPR119	missense	NM_178471:p.G232E
12924	X	133984040	133984040	C	T	C	Y	exonic	FAM127C	missense	NM_001078173:p.R39Q
12924	X	141118612	141118612	T	G	T	K	exonic	MAGEC2	missense	NM_016249:p.K276N
12924	X	153388977	153388977	C	A	C	M	exonic	FAM3A	nonsense	NM_001171133:p.E104X
12924	M	15052	15052	T	C	T	Y	upstream	MIR1974	NA	NA
13280	1	20912629	20912629	C	G	C	S	exonic	KIF17	missense	NM_001122819:p.E129Q
13280	1	31210266	31210266	C	A	C	M	exonic	PUM1	missense	NM_014676:p.S722I
13280	1	31210269	31210269	G	A	G	R	exonic	PUM1	missense	NM_014676:p.S721L
13280	1	35142875	35142875	G	T	G	K	exonic	DLGAP3	missense	NM_001080418:p.H233N
13280	1	42976740	42976740	G	T	G	K	exonic	CLDN19	missense	NM_001185117:p.D109E
13280	1	71645761	71645761	A	T	A	W	exonic	NEGR1	missense	NM_173808:p.S341T
13280	1	93374877	93374877	T	C	T	Y	exonic	MTF2	missense	NM_001164392:p.L439S
13280	1	94270130	94270130	C	G	C	S	exonic	ABCA4	missense	NM_000350:p.R1307T
13280	1	99191312	99191312	C	T	C	Y	exonic	LPPR5	missense	NM_001010861:p.E175K
13280	1	109285619	109285619	C	T	C	Y	exonic	CLCC1	missense	NM_015127:p.E193K
13280	1	148953757	148953757	C	G	C	S	exonic	HORMAD1	missense	NM_032132:p.R67T
13280	1	153280704	153280704	C	T	C	Y	exonic	DCST1	missense	NM_152494:p.N247Y
13280	1	154831952	154831952	C	T	C	Y	exonic	GPATCH4	missense	NM_015590:p.E269K
13280	1	157180366	157180366	A	G	A	R	exonic	PYHIN1	missense	NM_198929:p.M389V
13280	1	158518873	158518873	C	A	C	M	exonic	PEX19	missense	NM_002857:p.K130N
13280	1	175006868	175006868	G	-	T	*-/G	exonic	PAPPA2	FS_del	NM_020318:c.4644_4644delG
13280	1	178507237	178507237	G	A	G	R	exonic	LHX4	missense	NM_033343:p.R184Q
13280	1	181117302	181117302	A	G	A	R	exonic	DHX9	missense	NM_001357:p.I937M
13280	1	188517414	188517414	C	T	C	Y	exonic	FAM5C	missense	NM_199051:p.R109H
13280	1	214917269	214917269	G	A	G	R	exonic	ESRRG	missense	NM_001438:p.P82S
13280	1	226399860	226399860	G	A	G	R	exonic	GUK1	silent	NM_000858:p.V8V
13280	1	240330685	240330685	T	C	T	Y	exonic	PLD5	missense	NM_152666:p.E329G
13280	1	245080083	245080083	C	G	C	S	exonic	AHCTF1	missense	NM_015446:p.E1959Q
13280	1	245080115	245080115	C	G	C	S	exonic	AHCTF1	missense	NM_015446:p.R1948T
13280	1	246071303	246071303	C	G	C	S	exonic	OR11L1	missense	NM_001001959:p.Q173H
13280	2	29996425	29996425	C	A	C	M	exonic	ALK	missense	NM_004304:p.G202V
13280	2	39115934	39115934	C	G	C	S	exonic	SOS1	missense	NM_005633:p.E333Q
13280	2	45022962	45022962	C	T	C	Y	exonic	SIX3	missense	NM_005413:p.A72V
13280	2	64175776	64175776	T	C	T	Y	exonic	PELI1	missense	NM_020651:p.E274G
13280	2	65150359	65150359	G	A	G	R	exonic	CEP68	missense	NM_015147:p.E93K
13280	2	65150368	65150368	G	C	G	S	exonic	CEP68	missense	NM_015147:p.E96Q
13280	2	74609738	74609738	G	T	G	K	intronic	AUP1	NA	NA
13280	2	86179376	86179376	G	C	G	S	exonic	POLR1A	missense	NM_015425:p.R101G
13280	2	88780674	88780674	G	A	G	R	exonic	RPIA	missense	NM_144563:p.V127I

13280	2	98821013	98821013	C	G	C	S	splicing	C2orf55	NA	NA
13280	2	105258550	105258550	G	C	G	S	exonic	TGFBRAP1	missense	NM_001142621:p.R522G
13280	2	179323204	179323204	T	A	T	W	exonic	TTN	missense	NM_133379:p.E4056D
13280	2	196457681	196457681	C	G	C	S	exonic	DNAH7	missense	NM_018897:p.S1879T
13280	2	211956900	211956900	A	T	A	W	exonic	ERBB4	missense	NM_005235:p.N1204K
13280	2	233464435	233464435	C	G	C	S	exonic	NGEF	missense	NM_001114090:p.E291D
13280	3	15588219	15588219	G	T	G	K	exonic	HACL1	missense	NM_012260:p.T352N
13280	3	15617957	15617957	G	T	G	K	exonic	HACL1	missense	NM_012260:p.F6L
13280	3	32907330	32907330	C	G	C	S	exonic	TRIM71	missense	NM_001039111:p.Q544E
13280	3	49338155	49338155	C	-	A	*/-C	splicing	USP4	NA	NA
13280	3	114648157	114648157	C	A	C	M	exonic	SPICE1	missense	NM_144718:p.G828V
13280	3	128823195	128823195	G	T	G	K	splicing	MCM2	NA	NA
13280	3	137452053	137452053	G	A	G	R	exonic	PCCB	missense	NM_000532:p.G49E
13280	3	139598894	139598894	C	T	C	Y	exonic	MRAS	missense	NM_001085049:p.R78W
13280	4	8995369	8995369	A	G	A	R	intergenic	NA	NA	NA
13280	4	23424814	23424814	T	A	T	W	exonic	PPARGC1A	nonsense	NM_013261:p.K464X
13280	4	39085349	39085349	G	A	G	R	exonic	KLB	missense	NM_175737:p.D129N
13280	4	119956108	119956108	G	T	G	K	exonic	SEC24D	missense	NM_014822:p.Q207K
13280	4	123370741	123370741	C	T	C	Y	exonic	KIAA1109	missense	NM_015312:p.A1083V
13280	4	175834929	175834929	C	A	C	M	exonic	GLRA3	missense	NM_006529:p.V268F
13280	4	189161599	189161599	G	T	G	K	exonic	ZFP42	missense	NM_174900:p.R215L
13280	5	878334	878334	T	A	T	W	exonic	ZDHH11	missense	NM_024786:p.K323M
13280	5	14440669	14440669	C	G	C	S	exonic	TRIO	missense	NM_007118:p.F1231L
13280	5	37369432	37369432	C	G	C	S	exonic	NUP155	missense	NM_153485:p.D470H
13280	5	37369493	37369493	C	T	C	Y	splicing	NUP155	NA	NA
13280	5	37373686	37373686	C	T	C	Y	exonic	NUP155	missense	NM_153485:p.M446I
13280	5	37373739	37373739	C	T	C	Y	exonic	NUP155	missense	NM_153485:p.D429N
13280	5	41417931	41417931	T	C	T	Y	exonic	PLCXD3	missense	NM_001005473:p.Y189C
13280	5	121215873	121215873	G	T	G	K	exonic	FTMT	missense	NM_177478:p.V106L
13280	5	141013735	141013735	G	C	G	S	exonic	ARAP3	missense	NM_022481:p.T1534S
13280	5	178291635	178291635	G	T	G	K	exonic	ZFP2	nonsense	NM_030613:p.E239X
13280	6	31848758	31848758	T	A	T	W	exonic	C6orf27	missense	NM_025258:p.S347C
13280	6	31851899	31851899	C	T	C	Y	exonic	C6orf27	missense	NM_025258:p.A112T
13280	6	64048515	64048515	G	-	T	*/-G	exonic	LGSN	FS_del	NM_016571:c.900_900delC
13280	6	90430930	90430930	G	T	G	K	exonic	MDN1	missense	NM_014611:p.Q4745K
13280	6	105836362	105836362	G	A	G	R	exonic	PREP	missense	NM_002726:p.T597I
13280	6	139651396	139651396	C	G	C	S	exonic	TXLNB	missense	NM_153235:p.E112Q
13280	7	38467426	38467426	A	T	A	W	exonic	AMPH	missense	NM_139316:p.S333R
13280	7	71919040	71919040	C	T	C	Y	exonic	TYW1B	missense	NM_001145440:p.A129T
13280	7	75797441	75797441	G	T	G	K	exonic	YWHAG	missense	NM_012479:p.L45M
13280	7	88802883	88802883	G	T	G	K	exonic	ZNF804B	missense	NM_181646:p.G884V
13280	7	117219239	117219239	G	T	G	K	exonic	CTTNBP2	missense	NM_033427:p.A416D
13280	7	123304420	123304420	C	T	C	Y	exonic	HYAL4	missense	NM_012269:p.A474V
13280	7	138744921	138744921	G	C	G	S	exonic	LUC7L2	missense	NM_016019:p.E254Q
13280	7	140146667	140146667	C	A	C	M	exonic	BRAF	missense	NM_004333:p.G315V
13280	7	150186968	150186968	C	A	C	M	exonic	ABP1	missense	NM_001091:p.N585K
13280	7	151566799	151566799	G	A	G	R	exonic	MLL3	missense	NM_170606:p.P860S
13280	7	151566804	151566804	C	A	C	M	exonic	MLL3	missense	NM_170606:p.W858L
13280	7	158137879	158137879	C	G	C	S	exonic	NCAPG2	missense	NM_017760:p.G934A
13280	8	8271638	8271638	G	-	T	*/-G	exonic	SGK223	FS_del	NM_001080826:c.1691_1691delC
13280	8	26777838	26777838	G	A	G	R	exonic	ADRA1A	missense	NM_033303:p.A189V
13280	8	52908782	52908782	G	T	G	K	exonic	PCMTD1	missense	NM_052937:p.A144E
13280	8	75389915	75389915	C	A	C	M	exonic	JPH1	missense	NM_020647:p.G292V
13280	8	89156080	89156080	C	T	C	Y	exonic	MMP16	nonsense	NM_005941:p.W364X
13280	8	96329074	96329074	C	G	C	S	exonic	C8orf37	missense	NM_177965:p.S191R
13280	8	110169690	110169690	T	A	T	W	exonic	TRHR	missense	NM_003301:p.V258E
13280	8	113306313	113306313	T	A	T	W	exonic	CSMD3	missense	NM_198123:p.T3663S
13280	8	124264458	124264458	G	A	G	R	exonic	FAM83A	missense	NM_032899:p.D61N
13280	8	133809323	133809323	G	C	G	S	exonic	TMEM71	missense	NM_144649:p.I174M
13280	8	133898989	133898989	A	G	A	R	intronic	PHF20L1	NA	NA
13280	9	89462824	89462824	C	T	C	Y	exonic	DAPK1	missense	NM_004938:p.L629F
13280	9	135434062	135434062	G	T	G	K	exonic	FAM163B	missense	NM_001080515:p.G135D
13280	9	137656168	137656168	A	C	A	M	exonic	GLT6D1	missense	NM_182974:p.W143G
13280	9	137782699	137782699	G	A	G	R	exonic	KCNT1	missense	NM_020822:p.G142D
13280	9	138250473	138250473	G	A	G	R	exonic	QSOX2	missense	NM_181701:p.S320L
13280	10	3145640	3145640	G	T	G	K	exonic	PFKP	missense	NM_002627:p.R434L
13280	10	25353335	25353335	C	G	C	S	exonic	THNSL1	missense	NM_024838:p.L393V
13280	10	45227665	45227665	G	C	G	S	exonic	ALOX5	missense	NM_000698:p.G151A
13280	10	64694428	64694428	G	A	G	R	exonic	JMJD1C	nonsense	NM_032776:p.Q146X
13280	11	6189563	6189563	C	A	C	M	exonic	FAM160A2	nonsense	NM_032127:p.G904X
13280	11	14471812	14471812	T	G	T	K	exonic	COPB1	missense	NM_016451:p.H148P
13280	11	18543026	18543026	T	C	T	Y	exonic	UEVLD	missense	NM_018314:p.I201V
13280	11	33265498	33265498	C	G	C	S	exonic	HIPK3	missense	NM_005734:p.A321G
13280	11	47135262	47135262	G	T	G	K	exonic	C11orf49	missense	NM_001003678:p.L188F
13280	11	49811645	49811645	A	T	A	W	intergenic	NA	NA	NA
13280	11	57728188	57728188	C	A	C	M	exonic	OR152	missense	NM_001004459:p.M14I
13280	11	57728189	57728189	A	T	A	W	exonic	OR152	missense	NM_001004459:p.M14K
13280	11	64935291	64935291	A	G	A	R	exonic	FRMD8	missense	NM_031904:p.K427E
13280	11	65441851	65441851	G	T	G	K	exonic	C11orf68	missense	NM_001135635:p.F179L

13280	11	85122763	85122763	A	T	A	W	exonic	SYTL2	missense	NM_001162953:p.N419K
13280	11	123771872	123771872	C	T	C	Y	exonic	OR8B3	missense	NM_001005467:p.E196K
13280	11	123946143	123946143	T	A	T	W	exonic	OR8A1	silent	NM_001005194:p.G323G
13280	12	43555320	43555320	G	A	G	R	exonic	NELL2	nonsense	NM_001145107:p.Q97X
13280	12	46658065	46658065	G	A	G	R	exonic	COL2A1	nonsense	NM_033150:p.R967X
13280	12	51934113	51934113	C	T	C	Y	exonic	MFSD5	silent	NM_001170790:p.F516F
13280	12	56150514	56150514	C	A	C	M	exonic	GLI1	missense	NM_001167609:p.A534E
13280	12	88521712	88521712	C	G	C	S	exonic	ATP2B1	missense	NM_001001323:p.R919T
13280	12	100113060	100113060	C	G	C	S	exonic	SLC5A8	missense	NM_145913:p.D161H
13280	12	121569346	121569346	G	A	G	R	exonic	RSRC2	missense	NM_023012:p.R131C
13280	12	122215901	122215901	T	A	T	W	exonic	MPHOSPH9	missense	NM_022782:p.T738S
13280	12	131816697	131816697	G	T	G	K	exonic	ANKLE2	missense	NM_015114:p.S708R
13280	13	22813667	22813667	C	T	C	Y	exonic	SACS	nonsense	NM_014363:p.W783X
13280	13	23342223	23342223	G	T	G	K	exonic	MIPEP	missense	NM_005932:p.R239S
13280	13	24382075	24382075	C	T	C	Y	exonic	CENPJ	missense	NM_018451:p.E240K
13280	13	38495234	38495234	G	A	G	R	exonic	C13orf23	missense	NM_170719:p.P178S
13280	13	47935919	47935919	A	T	A	W	exonic	RB1	nonsense	NM_000321:p.K720X
13280	13	52293095	52293095	T	A	T	W	intergenic	NA	NA	NA
13280	13	114028535	114028535	A	G	A	R	exonic	CDC16	missense	NM_003903:p.N279S
13280	14	24045588	24045588	A	T	A	W	exonic	CMA1	missense	NM_001836:p.L91H
13280	14	44442190	44442190	G	C	G	S	exonic	C14orf28	missense	NM_001017923:p.L185F
13280	14	76649633	76649633	C	A	C	M	exonic	KIAA1737	missense	NM_033426:p.P140Q
13280	15	27796255	27796255	C	T	C	Y	exonic	TJP1	missense	NM_003257:p.E1352K
13280	15	47939721	47939721	C	A	C	M	exonic	ATP8B4	missense	NM_024837:p.V1181L
13280	15	50495705	50495705	C	A	C	M	exonic	MYO5A	missense	NM_001142495:p.A181S
13280	15	56072211	56072211	A	T	A	W	exonic	ALDH1A2	missense	NM_170697:p.F165Y
13280	15	67122118	67122118	C	G	C	S	exonic	NOX5	missense	NM_001184779:p.F494L
13280	15	71676430	71676430	A	G	A	R	exonic	NPTN	missense	NM_001161363:p.I142T
13280	15	75023256	75023256	G	C	G	S	exonic	RCN2	missense	NM_002902:p.D184H
13280	15	75193675	75193675	C	A	C	M	exonic	SGK269	missense	NM_024776:p.A1707S
13280	15	76667761	76667761	A	G	A	R	exonic	CHRNA5	missense	NM_000745:p.I118M
13280	15	83127820	83127820	C	A	C	M	exonic	ZNF592	missense	NM_014630:p.Q304K
13280	15	83127845	83127845	C	T	C	Y	exonic	ZNF592	missense	NM_014630:p.S312L
13280	15	83128397	83128397	C	G	C	S	exonic	ZNF592	missense	NM_014630:p.A496G
13280	16	2141733	2141733	G	A	G	R	exonic	RAB26	missense	NM_014353:p.V129I
13280	16	20399439	20399439	G	T	G	K	exonic	ACSM2A	missense	NM_001010845:p.W442L
13280	17	26600139	26600139	C	G	C	S	exonic	NF1	nonsense	NM_001042492:p.S1329X
13280	17	53407079	53407079	C	A	C	M	exonic	VEZF1	missense	NM_007146:p.M440I
13280	17	70461845	70461845	C	A	C	M	exonic	C17orf28	missense	NM_030630:p.S616I
13280	17	71264738	71264738	G	A	G	R	exonic	ITGB4	missense	NM_000213:p.G1725R
13280	17	71459246	71459246	C	G	C	S	exonic	ACOX1	missense	NM_001185039:p.E280Q
13280	18	27871231	27871231	G	C	G	S	splicing	RNF125	NA	NA
13280	18	49239652	49239652	C	T	C	Y	exonic	DCC	nonsense	NM_005215:p.R1149X
13280	19	3604520	3604520	C	T	C	Y	exonic	PIP5K1C	missense	NM_012398:p.G230D
13280	19	12244233	12244233	C	G	C	S	exonic	ZNF44	missense	NM_001164276:p.D661H
13280	19	12245310	12245310	C	T	C	Y	exonic	ZNF44	missense	NM_001164276:p.E302K
13280	19	15867324	15867324	T	C	T	Y	exonic	CYP4F2	missense	NM_001082:p.N112S
13280	19	16868069	16868069	A	C	A	M	exonic	CPAMD8	missense	NM_015692:p.L1829V
13280	19	17299498	17299498	C	T	C	Y	splicing	ANO8	silent	NM_020959:p.Q806Q
13280	19	22063117	22063117	C	T	C	Y	exonic	ZNF257	missense	NM_033468:p.S242L
13280	19	22732666	22732666	C	A	C	M	exonic	ZNF99	missense	NM_001080409:p.A538S
13280	19	40492838	40492838	C	A	C	M	exonic	MAG	missense	NM_080600:p.R485S
13280	19	42817788	42817788	T	A	T	W	exonic	ZFP30	missense	NM_014898:p.E498D
13280	19	50255515	50255515	G	C	G	S	exonic	CLASRP	missense	NM_007056:p.E247Q
13280	19	53034920	53034920	A	T	A	W	exonic	CRX	missense	NM_000554:p.S262C
13280	19	53525454	53525454	G	A	G	R	exonic	EMP3	missense	NM_001425:p.G136E
13280	19	59005349	59005349	C	G	C	S	exonic	NLRP12	missense	NM_144687:p.R459T
13280	19	62531339	62531339	G	T	G	K	exonic	ZNF543	missense	NM_213598:p.G233W
13280	19	63144458	63144458	C	G	C	S	exonic	ZNF256	missense	NM_005773:p.Q510H
13280	19	63464456	63464456	G	C	G	S	exonic	ZNF544	missense	NM_014480:p.Q224H
13280	19	63559421	63559421	T	C	T	Y	exonic	ZNF497	missense	NM_198458:p.T465A
13280	20	23617569	23617569	G	A	G	R	exonic	CST4	missense	NM_001899:p.A13V
13280	20	31084499	31084499	C	-	G	*/-C	exonic	BPIL3	FS_del	NM_174897:c.146_146delC
13280	20	33335408	33335408	C	A	C	M	exonic	EIF6	missense	NM_002212:p.G60W
13280	20	36073739	36073739	C	G	C	S	exonic	TTI1	missense	NM_014657:p.E632Q
13280	22	22510575	22510575	G	A	G	R	exonic	DERL3	silent	NM_001135751:p.F97F
13280	22	29661039	29661039	G	A	G	R	exonic	MORC2	missense	NM_014941:p.P579L
13280	X	12537853	12537853	A	G	A	R	exonic	FRMPD4	missense	NM_014728:p.D84G
13280	X	15751123	15751123	G	A	G	R	exonic	ZRSR2	missense	NM_005089:p.R429H
13280	X	18503403	18503403	G	C	G	S	exonic	CDKL5	missense	NM_001037343:p.E52Q
13280	X	23321754	23321754	C	G	C	S	exonic	PTCHD1	missense	NM_173495:p.S733C
13280	X	46836452	46836452	G	T	G	K	exonic	RGN	missense	NM_004683:p.C248F
13280	X	47372558	47372558	G	C	G	S	exonic	CFP	missense	NM_002621:p.S97C
13280	X	48936733	48936733	C	A	C	M	exonic	SYP	missense	NM_003179:p.Q185H
13280	X	50367314	50367314	G	T	G	K	exonic	SHROOM4	missense	NM_020717:p.H1190N
13280	X	53240957	53240957	C	T	C	Y	exonic	KDM5C	missense	NM_001146702:p.D1040N
13280	X	55050120	55050120	C	G	C	S	exonic	APEX2	missense	NM_014481:p.Q362E
13280	X	55530119	55530119	G	A	G	R	exonic	USP51	missense	NM_201286:p.T660I
13280	X	71789183	71789183	G	T	G	K	exonic	PHKA1	missense	NM_001172436:p.P394H



13280	X	100012386	100012386	T	C	T	Y	exonic	NOX1	missense	NM_013955:p.Y40C	
13280	X	117584044	117584044	T	G	T	K	exonic	DOCK11	missense	NM_144658:p.Y248D	
13280	X	117584105	117584105	A	T	A	W	exonic	DOCK11	missense	NM_144658:p.K268I	
13280	X	128976652	128976652	C	-	A	A	*/-C	exonic	BCORL1	FS_del	NM_021946:c.2223_2223delC
13299	3	75870266	75870266	A	G	A	R	exonic	ZNF717	missense	NM_001128223:p.C400R	
13299	3	75870274	75870274	C	A	C	M	exonic	ZNF717	missense	NM_001128223:p.C397F	
13394	1	3309278	3309278	G	T	G	K	exonic	PRDM16	missense	NM_199454:p.R247L	
13394	1	33962809	33962809	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.A887S	
13394	1	86736972	86736972	C	A	C	M	exonic	CLCA1	missense	NM_001285:p.P748H	
13394	1	92714255	92714255	G	T	G	K	exonic	GF11	missense	NM_005263:p.F396L	
13394	1	156864046	156864046	A	G	A	R	exonic	SPTA1	missense	NM_003126:p.L1886P	
13394	1	159309233	159309233	C	T	C	Y	exonic	PVRL4	missense	NM_030916:p.E459K	
13394	1	174935263	174935263	G	T	G	K	exonic	PAPPA2	missense	NM_020318:p.V1051L	
13394	1	184587837	184587837	T	A	T	W	exonic	TPR	missense	NM_003292:p.K788M	
13394	1	196163523	196163523	G	T	G	K	exonic	LHX9	missense	NM_001014434:p.G296C	
13394	1	202670253	202670253	T	C	T	Y	exonic	PIK3C2B	missense	NM_002646:p.H1208R	
13394	1	245779135	245779135	C	A	C	M	exonic	C1orf150	silent	NM_145278:p.R7R	
13394	2	58220303	58220303	A	T	A	W	splicing	VRK2	NA	NA	
13394	2	98219587	98219587	G	T	G	K	exonic	VWA3B	missense	NM_144992:p.V879F	
13394	2	198206729	198206729	G	T	G	K	exonic	RFTN2	missense	NM_144629:p.Q226K	
13394	3	10836396	10836396	G	T	G	K	splicing	SLC6A11	NA	NA	
13394	3	10836397	10836397	G	T	G	K	splicing	SLC6A11	missense	NM_014229:p.G131V	
13394	3	66532150	66532150	A	G	A	R	exonic	LRIG1	missense	NM_015541:p.L389P	
13394	3	99592638	99592638	G	C	G	S	exonic	OR5K3	missense	NM_001005516:p.G147R	
13394	3	99592639	99592639	G	T	G	K	exonic	OR5K3	missense	NM_001005516:p.G147V	
13394	4	125811277	125811277	G	T	G	K	exonic	ANKRD50	missense	NM_020337:p.Q869K	
13394	5	33612445	33612445	G	A	G	R	exonic	ADAMTS12	missense	NM_030955:p.T1148I	
13394	5	37184109	37184109	T	C	T	Y	exonic	C5orf42	missense	NM_023073:p.I2744V	
13394	6	3977676	3977676	C	T	C	Y	exonic	PRPF4B	missense	NM_003913:p.S309F	
13394	6	112496248	112496248	T	C	T	Y	exonic	WISP3	missense	NM_003880:p.L246P	
13394	7	34061306	34061306	A	G	A	R	exonic	BMPER	missense	NM_133468:p.T265A	
13394	8	89137533	89137533	C	A	C	M	exonic	MMP16	missense	NM_005941:p.G438C	
13394	8	92448100	92448100	G	T	G	K	exonic	SLC26A7	missense	NM_134266:p.Q535H	
13394	9	111938576	111938576	G	T	G	K	exonic	AKAP2	nonsense	NM_007203:p.E311X	
13394	10	17182203	17182203	C	A	C	M	exonic	CUBN	missense	NM_001081:p.M524I	
13394	10	18294550	18294550	A	G	A	R	exonic	SLC39A12	missense	NM_152725:p.N226D	
13394	10	50360817	50360817	T	A	T	W	exonic	ERC6	missense	NM_000124:p.L697F	
13394	10	50526646	50526646	C	A	C	M	exonic	CHAT	missense	NM_020984:p.L339M	
13394	10	79251522	79251522	T	C	T	Y	exonic	DLG5	missense	NM_004747:p.D909G	
13394	10	89675267	89675267	A	G	A	R	exonic	PTEN	missense	NM_000314:p.H61R	
13394	11	5211994	5211994	G	T	G	K	exonic	HBD	missense	NM_000519:p.Q40K	
13394	11	10439826	10439826	G	T	G	K	exonic	AMPD3	nonsense	NM_000480:p.E71X	
13394	11	128826458	128826458	C	A	C	M	exonic	BARX2	missense	NM_003658:p.P264Q	
13394	11	129792056	129792056	G	A	G	R	exonic	ADAMTS8	missense	NM_007037:p.A362V	
13394	12	38043241	38043241	G	C	G	S	exonic	KIF21A	missense	NM_017641:p.S315R	
13394	14	64078590	64078590	C	A	C	M	exonic	HSPA2	missense	NM_021979:p.P424T	
13394	15	60327039	60327039	G	A	G	R	intergenic	NA	NA	NA	
13394	15	71963581	71963581	G	C	G	S	exonic	TBC1D21	missense	NM_153356:p.K103N	
13394	15	83206930	83206930	G	A	G	R	exonic	ALPK3	missense	NM_020778:p.C1599Y	
13394	15	83207845	83207845	G	T	G	K	exonic	ALPK3	missense	NM_020778:p.R1692L	
13394	15	99409559	99409559	A	T	A	W	exonic	LRRK1	missense	NM_024652:p.Y1187F	
13394	16	80590705	80590705	G	C	G	S	exonic	SDR42E1	missense	NM_145168:p.H232D	
13394	17	7520310	7520310	G	-	A	A	*/-G	exonic	TP53	FS_del	NM_001126114:c.102_102delC
13394	17	27645575	27645575	G	C	G	S	splicing	RHBDL3	NA	NA	
13394	17	39687558	39687558	T	C	T	Y	splicing	SLC4A1	NA	NA	
13394	17	68700859	68700859	C	G	C	S	exonic	COG1	missense	NM_018714:p.A19G	
13394	20	1405926	1405926	T	C	T	Y	intronic	SIRPB2	NA	NA	
13394	21	46356637	46356637	G	C	G	S	exonic	COL6A2	missense	NM_058174:p.Q144H	
13394	22	37554250	37554250	C	T	C	Y	exonic	NPTXR	missense	NM_014293:p.E280K	
13394	X	100798410	100798410	G	A	G	R	exonic	ARMCX2	missense	NM_177949:p.A274V	
13542	1	54200653	54200653	G	C	G	S	exonic	LRRC42	missense	NM_052940:p.E304Q	
13542	1	57383576	57383576	C	A	C	M	exonic	DAB1	missense	NM_021080:p.C61F	
13542	1	70030416	70030416	G	C	G	S	exonic	LRRC7	missense	NM_020794:p.D98H	
13542	1	70593447	70593447	G	A	G	R	exonic	HHLA3	missense	NM_001036645:p.M75I	
13542	1	74421811	74421811	C	A	C	M	exonic	LRRIQ3	missense	NM_001105659:p.C49F	
13542	1	117712508	117712512	TTCAA	-	C	A	*/-	exonic	MAN1A2	FS_del	NM_006699:p.60_62del
13542	1	150458174	150458174	G	A	G	R	exonic	HRNR	missense	NM_001009931:p.S852L	
13542	1	159762068	159762068	G	C	G	S	exonic	HSPA6	missense	NM_002155:p.Q332H	
13542	1	159762807	159762807	G	T	G	K	exonic	HSPA6	missense	NM_002155:p.V579F	
13542	1	194887810	194887810	A	T	A	W	UTR5	CFH	NA	NA	
13542	1	202083412	202083412	G	C	G	S	exonic	ZC3H11A	missense	NM_014827:p.R507P	
13542	1	202705205	202705205	G	C	G	S	exonic	PIK3C2B	missense	NM_002646:p.P117A	
13542	1	203954110	203954110	T	C	T	Y	exonic	NUCKS1	missense	NM_022731:p.K218R	
13542	1	212892851	212892851	A	T	A	W	exonic	CENPF	missense	NM_016343:p.S2740C	
13542	1	224896374	224896374	G	C	G	S	exonic	ITPKB	missense	NM_002221:p.I774M	
13542	1	245836265	245836265	A	T	A	W	exonic	OR2G3	missense	NM_001001914:p.Y252F	
13542	1	246636973	246636973	A	G	A	R	exonic	OR2T1	missense	NM_030904:p.K352R	
13542	2	71118564	71118564	C	A	C	M	intergenic	NA	NA	NA	
13542	2	86622901	86622901	C	G	C	S	exonic	RNF103-VPS	missense	NM_016079:p.D31H	

13542	2	132098058	132098058	G	T	G	K	ncRNA	POTEKP	NA	NA
13542	2	168732055	168732055	C	A	C	M	splicing	STK39	missense	NM_013233:p.G144C
13542	2	201224015	201224015	T	A	T	W	exonic	AOX1	missense	NM_001159:p.I974N
13542	3	3056782	3056782	A	G	A	R	exonic	CNTN4	missense	NM_175613:p.Y414C
13542	3	39160796	39160796	G	A	G	R	exonic	CSRNP1	nonsense	NM_033027:p.R206X
13542	3	42704789	42704789	A	G	A	R	exonic	KBTBD5	missense	NM_152393:p.Y435C
13542	3	44857600	44857600	C	A	C	M	exonic	KIF15	missense	NM_020242:p.H1151N
13542	3	125834126	125834126	G	T	G	K	exonic	KALRN	missense	NM_007064:p.K85N
13542	3	141889967	141889967	C	A	C	M	exonic	TRIM42	missense	NM_152616:p.Q585K
13542	3	181098721	181098721	C	T	C	Y	exonic	PEX5L	missense	NM_016559:p.G34D
13542	4	985294	985294	G	A	G	R	exonic	IDUA	missense	NM_000203:p.E178K
13542	4	985327	985327	G	C	G	S	exonic	IDUA	missense	NM_000203:p.D189H
13542	4	39449110	39449110	C	T	C	Y	intronic	UBE2K	NA	NA
13542	4	64957634	64957634	C	T	C	Y	exonic	TECL	missense	NM_001010874:p.E11K
13542	4	159778642	159778642	A	G	A	R	exonic	RXFP1	missense	NM_021634:p.Q335R
13542	4	189161626	189161626	A	G	A	R	exonic	ZFP42	missense	NM_174900:p.K224R
13542	5	41349597	41349597	G	T	G	K	exonic	PLCXD3	missense	NM_001005473:p.T282K
13542	5	131036112	131036112	C	A	C	M	exonic	FNIP1	nonsense	NM_001008738:p.G614X
13542	5	132260182	132260182	G	T	G	K	exonic	AFF4	nonsense	NM_014423:p.S680X
13542	5	140461639	140461639	G	A	G	R	exonic	PCDHB3	missense	NM_018937:p.A408T
13542	5	140517330	140517330	G	A	G	R	ncRNA	PCDHB17	NA	NA
13542	5	140553214	140553214	T	G	T	K	exonic	PCDHB10	missense	NM_018930:p.F302C
13542	5	159613198	159613198	C	A	C	M	exonic	CCNJL	missense	NM_024565:p.R358L
13542	6	3977627	3977627	A	G	A	R	exonic	PRPF4B	missense	NM_003913:p.R293G
13542	6	26025218	26025218	A	T	A	W	exonic	SLC17A2	missense	NM_005835:p.S242R
13542	6	31936332	31936332	C	A	C	M	exonic	NEU1	missense	NM_000434:p.G221W
13542	6	33516680	33516680	C	T	C	Y	exonic	SYNGAP1	missense	NM_006772:p.L625F
13542	6	97160504	97160504	C	G	C	S	exonic	FHL5	missense	NM_001170807:p.R114G
13542	6	117716586	117716586	C	A	C	M	exonic	ROS1	missense	NM_002944:p.R2269L
13542	6	131318051	131318051	G	A	G	R	exonic	EPB41L2	nonsense	NM_001199389:p.Q198X
13542	6	132037094	132037094	G	T	G	K	exonic	ENPP3	missense	NM_005021:p.A248S
13542	6	168795740	168795740	G	A	G	R	exonic	SMOC2	missense	NM_022138:p.V409M
13542	7	30058957	30058957	A	G	A	R	exonic	PLEKHA8	missense	NM_032639:p.E249G
13542	7	43513357	43513357	T	A	T	W	exonic	HECW1	missense	NM_015052:p.F1243Y
13542	7	65254645	65254645	G	T	G	K	exonic	CRCP	nonsense	NM_014478:p.E105X
13542	7	100017928	100017928	C	G	C	S	exonic	LRCH4	missense	NM_002319:p.R104T
13542	7	107408439	107408439	C	A	C	M	exonic	LAMB1	nonsense	NM_002291:p.G244X
13542	7	142284661	142284661	C	T	C	Y	exonic	TRPV6	missense	NM_018646:p.R180Q
13542	7	143288843	143288843	C	A	C	M	exonic	OR2F1	missense	NM_012369:p.P283T
13542	8	41641662	41641662	C	T	C	Y	exonic	ANK1	missense	NM_001142445:p.V13M
13542	8	86224364	86224364	-	A	G	*/+A	exonic	LRRCC1	FS_ins	NM_033402:p.E404fs
13542	8	86224370	86224370	C	T	C	Y	exonic	LRRCC1	missense	NM_033402:p.P406S
13542	8	87752363	87752363	G	A	G	R	exonic	CNGB3	missense	NM_019098:p.R140C
13542	8	105430329	105430329	A	T	A	W	exonic	TM7SF4	missense	NM_030788:p.M125L
13542	8	113767075	113767075	C	A	C	M	exonic	CSMD3	missense	NM_198123:p.G740W
13542	8	142223524	142223524	C	G	C	S	exonic	DENND3	missense	NM_014957:p.P160R
13542	9	2071948	2071948	G	A	G	R	exonic	SMARCA2	missense	NM_139045:p.M767I
13542	9	3215139	3215139	G	C	G	S	exonic	RFX3	missense	NM_134428:p.P718R
13542	9	71931050	71931050	G	A	G	R	exonic	MAMDC2	missense	NM_153267:p.D267N
13542	9	83392541	83392541	C	G	C	S	exonic	TLE1	missense	NM_005077:p.G618R
13542	9	85053063	85053063	C	G	C	S	exonic	FRMD3	missense	NM_174938:p.E462Q
13542	9	85696184	85696184	A	T	A	W	exonic	KIF27	missense	NM_017576:p.L552Q
13542	9	129750293	129750293	G	A	G	R	exonic	FAM102A	missense	NM_203305:p.P23L
13542	9	134193586	134193586	C	T	C	Y	exonic	SETX	missense	NM_015046:p.E1074K
13542	9	137517853	137517853	C	T	C	Y	exonic	KIAA0649	missense	NM_014811:p.P559L
13542	10	18127637	18127637	G	A	G	R	intergenic	NA	NA	NA
13542	10	26895904	26895904	G	C	G	S	exonic	APBB1IP	missense	NM_019043:p.K494N
13542	10	51438682	51438682	A	C	A	M	exonic	AGAP6	missense	NM_001077665:p.K264T
13542	10	75535004	75535007	CCGA	-	T	*/-	exonic	VCL	FS_del	NM_014000:p.774_775del
13542	11	5418743	5418743	T	C	T	Y	exonic	OR5111	missense	NM_001005288:p.D193G
13542	11	18240268	18240268	C	A	C	M	intergenic	NA	NA	NA
13542	11	49383427	49383427	T	A	T	W	intergenic	NA	NA	NA
13542	11	55503870	55503870	G	A	G	R	ncRNA	OR7E5P	NA	NA
13542	11	55814548	55814548	C	A	C	M	exonic	OR8H1	missense	NM_001005199:p.M189I
13542	11	59028208	59028208	T	A	T	W	exonic	OR4D11	missense	NM_001004706:p.L195H
13542	11	85401061	85401061	T	-	A	*/-T	exonic	PICALM	FS_del	NM_007166:p.N190fs
13542	11	105294748	105294748	A	G	A	R	exonic	GRIA4	missense	NM_000829:p.H457R
13542	11	123405914	123405914	C	G	C	S	exonic	OR10G8	missense	NM_001004464:p.I125M
13542	12	733449	733449	C	T	C	Y	exonic	WNK1	missense	NM_018979:p.P153S
13542	12	33470346	33470346	G	T	G	K	exonic	SYT10	nonsense	NM_198992:p.S168X
13542	12	48005912	48005912	G	T	G	K	exonic	TROAP	missense	NM_005480:p.C204F
13542	12	48550649	48550649	G	T	G	K	exonic	FAIM2	missense	NM_012306:p.P286T
13542	12	51171213	51171213	C	T	C	Y	exonic	KRT6A	missense	NM_005554:p.E256K
13542	12	52653556	52653556	C	G	C	S	exonic	HOXC11	missense	NM_014212:p.S88R
13542	12	54507422	54507422	G	A	G	R	exonic	DNAJC14	nonsense	NM_032364:p.R430X
13542	12	131860882	131860882	A	T	A	W	exonic	GOLGA3	missense	NM_005895:p.L1414Q
13542	13	46307669	46307669	A	T	A	W	exonic	HTR2A	missense	NM_000621:p.F240L
13542	14	18187106	18187106	C	G	C	S	intergenic	NA	NA	NA
13542	14	18447759	18447759	G	T	G	K	exonic	OR11H12	missense	NM_001013354:p.G56W

13542	14	69995155	69995155	A	T	A	W	exonic	ADAM21	missense	NM_003813:p.N396Y
13542	14	71270204	71270204	C	T	C	Y	exonic	SIPA1L1	missense	NM_015556:p.P1665S
13542	14	85158674	85158674	A	G	A	R	exonic	FLRT2	missense	NM_013231:p.M355V
13542	15	20513937	20513937	A	T	A	W	exonic	CYFIP1	missense	NM_001033028:p.H308L
13542	15	75258263	75258263	C	G	C	S	exonic	PEAK1	missense	NM_024776:p.E1021Q
13542	16	66423859	66423859	C	A	C	M	splicing	CENPT	missense	NM_025082:p.R67S
13542	17	7519194	7519194	C	-	G	*/-C	exonic	TP53	FS_del	NM_001126117:p.G22fs
13542	17	36833559	36833559	C	A	C	M	exonic	KRT37	missense	NM_003770:p.A186S
13542	17	55898480	55898480	T	C	T	Y	exonic	APPBP2	missense	NM_006380:p.Y209C
13542	19	22288835	22288835	C	G	C	S	intergenic	NA	NA	NA
13542	19	56611294	56611294	G	-	A	*/-G	ncRNA	LOC1001290	NA	NA
13542	19	61158203	61158203	A	C	A	M	exonic	NLRP8	missense	NM_176811:p.T323P
13542	20	3608177	3608177	C	A	C	M	exonic	ADAM33	missense	NM_153202:p.D47Y
13542	20	47956423	47956423	T	A	T	W	exonic	SPATA2	missense	NM_001135773:p.S235C
13542	20	54461188	54461188	C	T	C	Y	exonic	CASS4	missense	NM_001164116:p.R517W
13542	20	54461189	54461189	G	T	G	K	exonic	CASS4	missense	NM_001164116:p.R517L
13542	22	35290384	35290384	A	T	A	W	exonic	CACNG2	missense	NM_006078:p.L311H
13542	X	30783002	30783002	T	C	T	Y	exonic	TAB3	missense	NM_152787:p.Q234R
13542	X	34060103	34060103	G	A	G	R	exonic	FAM47A	missense	NM_203408:p.R72C
13542	X	65158919	65158919	C	T	C	Y	exonic	VSIG4	missense	NM_001100431:p.A277T
13542	X	71789163	71789163	T	A	T	W	exonic	PHKA1	missense	NM_001172436:p.M401L
13542	X	83611031	83611031	C	T	C	Y	exonic	HDX	missense	NM_001177478:p.R61K
13542	X	91020927	91020927	C	A	C	M	splicing	PCDH11X	missense	NM_032969:p.P1011Q
13542	X	99438474	99438474	G	T	G	K	exonic	PCDH19	missense	NM_001105243:p.D921E
13542	X	100798225	100798225	G	T	G	K	exonic	ARMCX2	missense	NM_177949:p.P336T
13542	X	135233058	135233058	C	A	C	M	exonic	GPR112	missense	NM_153834:p.R176S
13542	X	153247933	153247933	G	T	G	K	exonic	FLNA	missense	NM_001456:p.P389T
13681	1	22032419	22032419	G	A	G	R	exonic	HSPG2	missense	NM_005529:p.P3675L
13681	1	62485813	62485813	C	A	C	M	exonic	KANK4	missense	NM_181712:p.M934I
13681	1	94725843	94725843	G	T	G	K	exonic	ABCD3	missense	NM_002858:p.A325S
13681	1	100700908	100700908	G	A	G	R	exonic	CDC14A	missense	NM_033312:p.G241S
13681	1	100700909	100700909	G	T	G	K	exonic	CDC14A	missense	NM_033312:p.G241V
13681	1	108095313	108095313	C	A	C	M	exonic	VAV3	missense	NM_006113:p.G403V
13681	1	144312975	144312975	-	T	C	*/+T	exonic	POLR3C	FS_ins	NM_006468:p.S263fs
13681	1	154372508	154372508	C	T	C	Y	exonic	LMNA	missense	NM_170708:p.R377C
13681	1	156783703	156783703	A	T	A	W	exonic	OR6Y1	missense	NM_001005189:p.Y273N
13681	1	174792355	174792355	A	T	A	W	exonic	PAPPA2	missense	NM_021936:p.T92S
13681	1	177344821	177344821	C	G	C	S	exonic	ABL2	missense	NM_001168236:p.G714A
13681	1	184301102	184301102	G	T	G	K	exonic	HMCN1	missense	NM_031935:p.Q2541H
13681	1	194551698	194551698	C	A	C	M	exonic	KCNT2	missense	NM_198503:p.E810D
13681	2	27656470	27656470	C	A	C	M	exonic	C2orf16	missense	NM_032266:p.S1176Y
13681	2	55444590	55444590	C	T	C	Y	splicing	CCDC88A	silent	NM_018084:p.E162E
13681	2	102379637	102379637	C	A	C	M	exonic	IL18R1	missense	NM_003855:p.H495Q
13681	2	102407169	102407169	A	T	A	W	exonic	IL18RAP	nonsense	NM_003853:p.K148X
13681	2	141176267	141176267	C	T	C	Y	exonic	LRP1B	missense	NM_018557:p.G2072E
13681	2	175666229	175666229	G	A	G	R	exonic	ATF2	missense	NM_001880:p.H331Y
13681	2	201142770	201142770	G	A	G	R	exonic	BGOL2	missense	NM_001160046:p.E205K
13681	3	4998105	4998105	T	C	T	Y	exonic	BHLHE40	missense	NM_003670:p.V96A
13681	3	40499188	40499188	G	T	G	K	exonic	ZNF619	missense	NM_001145093:p.G95V
13681	3	77230036	77230036	C	T	C	Y	exonic	ROBO2	nonsense	NM_001128929:p.Q62X
13681	3	101758378	101758378	G	T	G	K	exonic	TMEM45A	missense	NM_018004:p.G92V
13681	4	134303714	134303714	G	T	G	K	exonic	PCDH10	missense	NM_032961:p.G977V
13681	5	158182846	158182846	T	C	T	Y	exonic	EBF1	missense	NM_024007:p.M232V
13681	6	29751688	29751688	C	A	C	M	splicing	ZFP57	NA	NA
13681	6	32665427	32665427	G	A	G	R	exonic	HLA-DRB1	missense	NM_002124:p.S24F
13681	7	129306680	129306680	G	A	G	R	exonic	UBE2H	missense	NM_003344:p.I57L
13681	8	143993521	143993521	C	T	C	Y	exonic	CYP11B2	missense	NM_000498:p.A180T
13681	9	79175162	79175162	G	T	G	K	exonic	VPS13A	missense	NM_015186:p.G2919C
13681	9	89936175	89936175	C	-	T	*/-C	exonic	FAM75C2	FS_del	NM_001166137:p.E533fs
13681	9	129525322	129525322	C	G	C	S	exonic	TTC16	missense	NM_144965:p.A254G
13681	10	37458931	37458931	C	A	C	M	exonic	ANKRD30A	missense	NM_052997:p.P53H
13681	10	93758872	93758872	G	T	G	K	exonic	BTAF1	nonsense	NM_003972:p.E1344X
13681	10	125511458	125511458	C	T	C	Y	exonic	CPXM2	missense	NM_198148:p.R566Q
13681	11	5819164	5819164	G	T	G	K	exonic	OR52E6	nonsense	NM_001005167:p.Y180X
13681	11	18692711	18692711	A	C	A	M	exonic	IGSF22	missense	NM_173588:p.V523G
13681	11	21207543	21207543	C	A	C	M	exonic	NELL1	missense	NM_201551:p.P506T
13681	11	55162725	55162725	G	A	G	R	exonic	OR4P4	missense	NM_001004124:p.G106R
13681	11	67881869	67881869	G	T	G	K	exonic	LRP5	missense	NM_002335:p.A222S
13681	11	85074415	85074415	A	G	A	R	exonic	CCDC89	missense	NM_152723:p.M136T
13681	12	8091887	8091887	G	C	G	S	exonic	FOXJ2	missense	NM_018416:p.Q320H
13681	12	25289552	25289552	C	A	C	M	exonic	KRAS	missense	NM_033360:p.G12C
13681	12	51452881	51452881	C	A	C	M	exonic	KRT76	missense	NM_015848:p.D309Y
13681	12	77106175	77106175	C	T	C	Y	exonic	NAV3	missense	NM_014903:p.A1914V
13681	12	95661350	95661350	T	A	T	W	intergenic	NA	NA	NA
13681	12	108159425	108159425	A	T	A	W	exonic	ACACB	missense	NM_001093:p.N1507Y
13681	13	99751718	99751718	G	T	G	K	exonic	PCCA	nonsense	NM_000282:p.E357X
13681	14	50448341	50448341	T	C	T	Y	splicing	PYGL	NA	NA
13681	15	21483383	21483383	G	T	G	K	exonic	NDN	missense	NM_002487:p.S25R
13681	15	49617750	49617750	G	A	G	R	exonic	DMXL2	missense	NM_001174117:p.H433Y

13681	15	70741812	70741812	G	A	G	R	exonic	GOLGA6B	missense	NM_018652:p.R338K
13681	15	72352174	72352174	G	T	G	K	exonic	CCDC33	missense	NM_025055:p.Q216H
13681	17	10307597	10307597	C	A	C	M	exonic	MYH4	missense	NM_017533:p.R246L
13681	17	10340160	10340160	G	T	G	K	exonic	MYH1	missense	NM_005963:p.S1667R
13681	17	21259353	21259353	G	T	G	K	exonic	KCNJ12	missense	NM_001194958:p.V36L
13681	17	36559326	36559326	T	A	T	W	exonic	KRTAP4-5	missense	NM_033188:p.S74C
13681	17	64604500	64604500	T	A	T	W	exonic	ABCA6	missense	NM_080284:p.Y1053F
13681	19	10463584	10463584	C	A	C	M	exonic	KEAP1	missense	NM_012289:p.G332C
13681	19	21947991	21947991	T	C	T	Y	exonic	ZNF208	missense	NM_007153:p.Y562C
13681	19	41419571	41419571	G	T	G	K	exonic	ZNF146	missense	NM_001099638:p.C130F
13681	19	46222071	46222071	A	T	A	W	intergenic	NA	NA	NA
13681	19	60055510	60055510	T	A	T	W	exonic	KIR3DL2	missense	NM_006737:p.W106R
13681	19	62357638	62357638	G	C	G	S	exonic	DUXA	missense	NM_001012729:p.T190S
13681	21	46641788	46641788	G	T	G	K	exonic	PCNT	missense	NM_006031:p.Q1466H
13681	22	22890510	22890510	A	T	A	W	exonic	CABIN1	missense	NM_001201429:p.Q1580L
13681	X	5821101	5821101	C	G	C	S	exonic	NLGN4X	missense	NM_020742:p.Q736H
13681	X	26067991	26067991	A	T	A	W	exonic	MAGEB18	missense	NM_173699:p.H323L
13681	X	47315314	47315314	T	G	T	K	exonic	ARAF	missense	NM_001654:p.C549G
13681	X	54794338	54794338	G	C	G	S	exonic	ITIH5L	missense	NM_198510:p.P1185A
13681	X	54801382	54801382	C	T	C	Y	exonic	ITIH5L	missense	NM_198510:p.S617N
13681	X	65169233	65169233	G	T	G	K	exonic	VSIG4	missense	NM_001184830:p.Q166K
13681	X	71812673	71812673	A	-	C	*/-A	exonic	PKKA1	nonsense	NM_001172436:p.L197K
13681	X	73878777	73878777	C	A	C	M	exonic	KIAA2022	missense	NM_001008537:p.K780N
13681	X	74921539	74921539	C	A	C	M	exonic	MAGEE2	nonsense	NM_138703:p.E25X
13681	X	100982720	100982720	C	A	C	M	exonic	NXF5	missense	NM_032946:p.R135L
13681	X	117698648	117698648	T	C	T	Y	exonic	DOCK11	missense	NM_144658:p.I1879T
13681	X	123857689	123857689	C	A	C	M	exonic	ODZ1	missense	NM_001163279:p.Q100H
13681	X	125126711	125126711	C	A	C	M	exonic	DCAF12L2	missense	NM_001013628:p.S293I
13681	X	142545963	142545963	-	T	G	*/+T	exonic	SLITRK4	FS_ins	NM_001184750:p.L210fs
13681	X	149390076	149390076	G	T	G	K	exonic	MAMLD1	missense	NM_005491:p.G525W
13681	X	149663568	149663568	-	T	G	*/+T	exonic	MTMR1	FS_ins	NM_003828:p.W509fs
13681	X	149663569	149663569	C	A	C	M	exonic	MTMR1	missense	NM_003828:p.Q510K
13681	X	153534785	153534785	C	G	C	S	exonic	CTAG2	missense	NM_020994:p.G67R
13681	X	153597761	153597761	C	A	C	M	exonic	GAB3	missense	NM_080612:p.R37L
15145	1	8606966	8606966	T	A	T	W	exonic	RERE	missense	NM_001042681:p.D129V
15145	1	39157299	39157299	G	A	G	R	exonic	RHBDL2	missense	NM_017821:p.S58F
15145	1	57253525	57253525	G	A	G	R	exonic	DAB1	missense	NM_021080:p.P355S
15145	1	150861975	150861975	C	A	C	M	exonic	LCE3A	missense	NM_178431:p.G77W
15145	1	152299638	152299638	A	T	A	W	splicing	NUP210L	NA	NA
15145	1	170019946	170019946	G	T	G	K	exonic	METTL13	missense	NM_014955:p.Q113H
15145	1	210260162	210260162	T	C	T	Y	exonic	INTS7	missense	NM_015434:p.N99S
15145	1	245902505	245902505	C	A	C	M	exonic	OR13G1	missense	NM_001005487:p.W154C
15145	2	3629888	3629888	C	A	C	M	exonic	COLEC11	missense	NM_024027:p.A28D
15145	2	44282483	44282483	G	T	G	K	exonic	PPM1B	missense	NM_001033557:p.G214V
15145	2	140771876	140771876	G	T	G	K	exonic	LRP1B	missense	NM_018557:p.P4313Q
15145	2	185511334	185511334	C	A	C	M	exonic	ZNF804A	missense	NM_194250:p.T989N
15145	2	227585149	227585149	C	A	C	M	exonic	COL4A4	missense	NM_000092:p.G1442V
15145	2	234523434	234523434	C	A	C	M	exonic	TRPM8	missense	NM_024080:p.L349M
15145	3	39144894	39144894	C	T	C	Y	exonic	TTC21A	missense	NM_145755:p.H538Y
15145	3	71828354	71828354	C	A	C	M	exonic	E1F4E3	nonsense	NM_001134651:p.E118X
15145	3	88288137	88288137	G	T	G	K	exonic	C3orf38	missense	NM_173824:p.D218Y
15145	3	89563128	89563128	G	T	G	K	exonic	EPHA3	missense	NM_005233:p.V759L
15145	3	113187806	113187806	A	T	A	W	exonic	ABHD10	missense	NM_018394:p.D111V
15145	4	171762704	171762704	G	T	G	K	ncRNA	HSP90AA6P	NA	NA
15145	5	42836979	42836979	T	C	T	Y	exonic	SEPP1	missense	NM_001085486:p.H249R
15145	5	50719122	50719122	G	C	G	S	exonic	ISL1	missense	NM_002202:p.S87T
15145	5	162850001	162850001	G	T	G	K	exonic	HMMR	missense	NM_001142557:p.A577S
15145	6	12269852	12269852	A	T	A	W	exonic	HIVEP1	missense	NM_002114:p.T2228S
15145	6	35890518	35890518	C	A	C	M	exonic	LHFPL5	missense	NM_182548:p.D210E
15145	6	151334791	151334791	G	C	G	S	exonic	MTHFD1L	missense	NM_015440:p.V677L
15145	7	31344768	31344768	G	C	G	S	exonic	NEUROD6	missense	NM_022728:p.P214A
15145	7	77627497	77627497	G	A	G	R	exonic	MAGI2	missense	NM_012301:p.P876S
15145	8	113726543	113726543	G	T	G	K	exonic	CSMD3	missense	NM_198123:p.T1094K
15145	9	906890	906890	C	T	C	Y	exonic	DMRT1	missense	NM_021951:p.P317L
15145	9	103356132	103356132	A	T	A	W	exonic	RNF20	missense	NM_019592:p.D648V
15145	9	129310158	129310158	G	T	G	K	intronic	FAM129B	NA	NA
15145	11	65376964	65376964	A	C	A	M	exonic	SNX32	missense	NM_152760:p.N373H
15145	12	6529236	6529236	G	A	G	R	exonic	IFFO1	missense	NM_001039670:p.L340F
15145	13	109620952	109620952	G	T	G	K	exonic	COL4A1	missense	NM_001845:p.H1229N
15145	13	109890146	109890146	G	T	G	K	exonic	COL4A2	missense	NM_001846:p.G308C
15145	14	23971512	23971512	GAG	-	C	*/-GAG	exonic	KHNYN	nonFS_del	NM_015299:p.402_403del
15145	15	76838823	76838823	G	A	G	R	exonic	ADAMTS7	missense	NM_014272:p.R1686C
15145	16	16116129	16116129	G	A	G	R	exonic	ABCC1	missense	NM_004996:p.A1029T
15145	17	29507412	29507412	C	G	C	S	exonic	ACCN1	missense	NM_001094:p.V85L
15145	17	38108432	38108432	G	C	G	S	exonic	EZH1	missense	NM_001991:p.F724L
15145	17	39444958	39444958	G	A	G	R	exonic	TMEM101	missense	NM_032376:p.P213L
15145	17	45630824	45630824	G	A	G	R	exonic	COL1A1	missense	NM_000088:p.S171L
15145	18	33399469	33399469	G	A	G	R	exonic	CELF4	missense	NM_020180:p.T45I
15145	19	10461447	10461447	G	A	G	R	exonic	KEAP1	missense	NM_012289:p.R470C

15145	19	19488004	19488004	T	G	T	K	upstream	NDUFA13	NA	NA
15145	19	19651295	19651295	A	G	A	R	exonic	ZNF101	missense	NM_033204:p.K166R
15145	19	62531328	62531328	G	T	G	K	exonic	ZNF543	missense	NM_213598:p.C229F
15145	21	33847474	33847474	C	T	C	Y	exonic	SON	missense	NM_138927:p.A1356V
15145	22	27958281	27958281	G	A	G	R	exonic	EMID1	missense	NM_133455:p.G238E
15145	X	49029868	49029868	A	C	A	M	exonic	PPP1R3F	missense	NM_001184745:p.E245A
15145	X	65325018	65325018	C	A	C	M	exonic	HEPH	missense	NM_138737:p.H294N
15145	X	100798906	100798906	T	A	T	W	exonic	ARMCX2	missense	NM_177949:p.S109C
15145	X	109581480	109581480	G	C	G	S	exonic	RGAG1	missense	NM_020769:p.V327L
15145	X	152639620	152639620	A	G	A	R	splicing	BCAP31	missense	NM_001139457:p.W99R
15145	X	152658777	152658777	A	G	A	R	exonic	ABCD1	missense	NM_000033:p.N509S
15145	X	152932908	152932908	C	T	C	Y	exonic	IRAK1	missense	NM_001569:p.E440K
15145	M	15490	15490	A	G	A	R	intergenic	NA	NA	NA
15822	2	172358391	172358391	G	C	G	S	exonic	SLC25A12	missense	NM_003705:p.L480V
15822	3	149942327	149942327	G	A	G	R	exonic	AGTR1	missense	NM_009585:p.R272H
15822	15	39600027	39600027	G	C	G	S	exonic	RPAP1	missense	NM_015540:p.H1217D
15822	17	7520046	7520047	CA	-	T	*/-CA	exonic	TP53	FS_del	NM_001126113:p.122_122del
15822	17	7623316	7623316	A	C	A	M	exonic	DNAH2	missense	NM_020877:p.N1858H
15858	1	151044334	151044334	C	A	C	M	exonic	LCE1C	missense	NM_178351:p.R82L
15858	1	160234717	160234717	T	G	T	K	exonic	OLFML2B	missense	NM_015441:p.E332D
15858	1	202670334	202670334	C	A	C	M	exonic	PIK3C2B	missense	NM_002646:p.C1181F
15858	2	71724639	71724639	G	T	G	K	exonic	DYSF	missense	NM_001130987:p.A1522S
15858	2	144242059	144242059	T	A	T	W	exonic	ARHGAP15	missense	NM_018460:p.S426T
15858	3	99370847	99370847	C	A	C	M	exonic	OR5H15	nonsense	NM_001005515:p.S205X
15858	3	114996688	114996688	G	T	G	K	exonic	ATP6V1A	missense	NM_001690:p.R391S
15858	3	115552570	115552570	C	G	C	S	exonic	ZBTB20	missense	NM_001164346:p.E276Q
15858	3	141764424	141764424	G	T	G	K	exonic	CLSTN2	missense	NM_022131:p.R765L
15858	3	156338584	156338584	G	T	G	K	splicing	MME	NA	NA
15858	3	187820392	187820392	T	A	T	W	exonic	AHSG	missense	NM_001622:p.V243D
15858	6	29502694	29502694	C	A	C	M	exonic	OR11A1	missense	NM_013937:p.R235M
15858	7	47861096	47861096	C	A	C	M	exonic	PKD1L1	nonsense	NM_138295:p.E1590X
15858	7	64076200	64076200	C	A	C	M	exonic	ZNF117	missense	NM_015852:p.G395V
15858	7	73607760	73607760	G	T	G	K	splicing	GTF2IRD1	nonsense	NM_001199207:p.E707X
15858	7	88261718	88261718	C	A	C	M	exonic	C7orf62	missense	NM_152706:p.D159Y
15858	7	91469115	91469115	A	G	A	R	exonic	AKAP9	missense	NM_005751:p.I650V
15858	7	106332952	106332952	A	G	A	R	exonic	PIK3CG	missense	NM_002649:p.K1065E
15858	8	87629779	87629779	G	A	G	R	splicing	CPNE3	NA	NA
15858	8	145555074	145555074	G	C	G	S	exonic	GPR172A	missense	NM_024531:p.G340R
15858	10	17020982	17020982	A	T	A	W	exonic	CUBN	missense	NM_001081:p.Y1907N
15858	10	18868283	18868283	C	A	C	M	exonic	CACNB2	missense	NM_000724:p.A481D
15858	11	490634	490634	G	A	G	R	exonic	RNH1	missense	NM_203384:p.T41M
15858	11	55503896	55503896	G	A	G	R	ncRNA	OR7E5P	NA	NA
15858	11	55503897	55503897	G	T	G	K	ncRNA	OR7E5P	NA	NA
15858	12	37333973	37333973	T	G	T	K	exonic	CPNE8	missense	NM_153634:p.H558P
15858	12	48635477	48635477	C	A	C	M	exonic	AQP2	missense	NM_000486:p.A212D
15858	12	106553265	106553265	C	G	C	S	exonic	BTBD11	missense	NM_001017523:p.T439R
15858	12	123523486	123523486	C	T	C	Y	exonic	NCOR2	missense	NM_001077261:p.V186I
15858	14	75702821	75702821	A	T	A	W	exonic	C14orf118	missense	NM_017972:p.Q242L
15858	14	95002088	95002088	G	T	G	K	exonic	C14orf49	missense	NM_152592:p.P187H
15858	15	38834087	38834087	C	A	C	M	splicing	FAM82A2	missense	NM_018145:p.V63L
15858	16	46823319	46823319	C	A	C	M	exonic	ABCC11	missense	NM_032583:p.R55
15858	17	20433741	20433741	C	A	C	M	intergenic	NA	NA	NA
15858	17	55114423	55114423	A	T	A	W	exonic	CLTC	missense	NM_004859:p.E1151V
15858	19	2684122	2684122	T	A	T	W	exonic	SLC39A3	missense	NM_144564:p.Q191L
15858	19	15886607	15886607	T	C	T	Y	exonic	CYP4F11	missense	NM_021187:p.D405G
15858	19	35626600	35626600	C	A	C	M	exonic	ZNF536	missense	NM_014717:p.N97K
15858	19	47954057	47954057	C	T	C	Y	exonic	PSG8	missense	NM_001130167:p.E216K
15858	20	51305578	51305578	C	A	C	M	exonic	TSHZ2	missense	NM_173485:p.T725K
15858	20	55621595	55621595	C	A	C	M	exonic	ZBP1	missense	NM_001160419:p.D234Y
15858	22	23353459	23353459	G	A	G	R	exonic	GGT1	missense	NM_001032365:p.D361N
15858	X	135560223	135560223	G	T	G	K	splicing	CD40LG	NA	NA
16246	1	11172359	11172359	T	A	T	W	exonic	ANGPTL7	missense	NM_021146:p.C46S
16246	1	20121760	20121760	T	C	T	Y	exonic	PLA2G2E	missense	NM_014589:p.Y39C
16246	1	20313338	20313338	A	T	A	W	splicing	PLA2G2D	silent	NM_012400:p.S98S
16246	1	40008527	40008527	T	A	T	W	exonic	OXCT2	missense	NM_022120:p.I330F
16246	1	62476560	62476560	G	T	G	K	exonic	KANK4	missense	NM_181712:p.Q989K
16246	1	74811706	74811706	G	A	G	R	exonic	C1orf173	missense	NM_001002912:p.S759F
16246	1	85185304	85185304	T	C	T	Y	splicing	MCOLN2	missense	NM_153259:p.T283A
16246	1	86364471	86364471	G	T	G	K	exonic	COL24A1	missense	NM_152890:p.H46N
16246	1	114325516	114325516	G	T	G	K	exonic	OLFML3	missense	NM_020190:p.D275Y
16246	1	145847184	145847184	C	A	C	M	exonic	GJA8	missense	NM_005267:p.L160I
16246	1	150325925	150325925	G	C	G	S	exonic	TCHHL1	missense	NM_001008536:p.S286C
16246	1	150457950	150457950	C	A	C	M	exonic	HRNR	missense	NM_001009931:p.G927C
16246	1	150553519	150553519	G	T	G	K	exonic	FLG	missense	NM_002016:p.S156Y
16246	1	151123600	151123600	C	G	C	S	exonic	SMCP	missense	NM_030663:p.C26W
16246	1	152380601	152380601	C	A	C	M	exonic	NUP210L	missense	NM_207308:p.G166W
16246	1	153185812	153185812	T	G	T	K	exonic	PBXIP1	missense	NM_020524:p.E321A
16246	1	153530982	153530982	C	G	C	S	exonic	PKLR	missense	NM_000298:p.V294L
16246	1	156566035	156566035	C	A	C	M	exonic	CD1B	missense	NM_001764:p.G212V

16246	1	156873075	156873075	C	A	C	M	exonic	SPTA1	missense	NM_003126;p.A17645
16246	1	157002408	157002408	G	A	G	R	exonic	OR6N1	missense	NM_001005185;p.S230L
16246	1	157002409	157002409	A	T	A	W	exonic	OR6N1	missense	NM_001005185;p.S230T
16246	1	158155223	158155223	C	A	C	M	exonic	TAGLN2	missense	NM_003564;p.Q197H
16246	1	161012090	161012090	G	T	G	K	exonic	DDR2	missense	NM_001014796;p.K627N
16246	1	161383898	161383898	G	T	G	K	exonic	RG55	missense	NM_001195303;p.T27N
16246	1	164306292	164306292	A	T	A	W	exonic	FAM78B	missense	NM_001017961;p.V199E
16246	1	178432477	178432477	G	C	G	S	exonic	QSOX1	missense	NM_002826;p.L642F
16246	1	210865913	210865913	C	G	C	S	exonic	FAM71A	missense	NM_153606;p.S357R
16246	1	213858926	213858926	G	C	G	S	exonic	KCTD3	missense	NM_016121;p.R546S
16246	1	216022203	216022203	G	T	G	K	exonic	SPATA17	missense	NM_138796;p.R263L
16246	1	220810522	220810522	G	A	G	R	exonic	TAF1A	missense	NM_005681;p.P238L
16246	1	238138096	238138096	A	T	A	W	exonic	CHRM3	missense	NM_000740;p.Y241F
16246	1	244088556	244088556	C	A	C	M	exonic	SMYD3	missense	NM_001167740;p.S314I
16246	1	246125629	246125629	G	T	G	K	exonic	OR2W3	missense	NM_001001957;p.V40L
16246	1	246469379	246469379	C	T	C	Y	exonic	OR2M4	missense	NM_017504;p.H176Y
16246	2	24114239	24114239	G	A	G	R	exonic	C2orf44	nonsense	NM_001142319;p.Q544X
16246	2	37121791	37121791	G	T	G	K	exonic	HEATR5B	missense	NM_019024;p.P949T
16246	2	39850549	39850549	C	A	C	M	exonic	THUMP2	missense	NM_025264;p.R159S
16246	2	74444045	74444045	C	A	C	M	exonic	DCTN1	missense	NM_001135040;p.A1052S
16246	2	74609564	74609564	G	A	G	R	exonic	AUP1	missense	NM_181575;p.L116F
16246	2	101277905	101277905	T	C	T	Y	exonic	RNF149	missense	NM_173647;p.M211V
16246	2	170950990	170950990	G	A	G	R	exonic	MYO3B	missense	NM_138995;p.A446T
16246	2	182107292	182107292	G	A	G	R	exonic	ITGA4	missense	NM_000885;p.E945K
16246	2	234191412	234191412	C	A	C	M	exonic	UGT1A8	missense	NM_019076;p.S107Y
16246	3	1418203	1418203	A	T	A	W	exonic	CNTN6	missense	NM_014461;p.N931Y
16246	3	12831847	12831847	G	T	G	K	exonic	CAND2	missense	NM_001162499;p.R405L
16246	3	75488961	75488961	C	G	C	S	intergenic	NA	NA	NA
16246	3	106953126	106953126	C	A	C	M	exonic	CBLB	missense	NM_170662;p.R198I
16246	3	122823258	122823258	G	T	G	K	exonic	FBXO40	nonsense	NM_016298;p.E98X
16246	3	124995298	124995298	C	A	C	M	exonic	MYLK	missense	NM_053028;p.M27I
16246	3	125860013	125860013	C	T	C	Y	exonic	KALRN	missense	NM_007064;p.R330C
16246	3	168560351	168560351	C	G	C	S	splicing	ZBBX	NA	NA
16246	3	168667651	168667651	G	A	G	R	exonic	SERPINI2	nonsense	NM_006217;p.Q122X
16246	3	187817687	187817687	C	A	C	M	exonic	AHSG	missense	NM_001622;p.R143S
16246	3	187878205	187878205	C	T	C	Y	exonic	HRG	missense	NM_000412;p.P473S
16246	4	46625135	46625135	G	T	G	K	exonic	GABRA4	missense	NM_000809;p.P510H
16246	4	104730364	104730364	C	A	C	M	exonic	TACR3	missense	NM_001059;p.R441L
16246	4	119957907	119957907	C	A	C	M	exonic	SEC24D	missense	NM_014822;p.Q119H
16246	4	123570238	123570238	C	A	C	M	exonic	ADAD1	missense	NM_001159295;p.S524Y
16246	4	143455326	143455326	G	T	G	K	exonic	INPP4B	missense	NM_001101669;p.P138T
16246	4	155726563	155726563	C	A	C	M	exonic	FGA	missense	NM_000508;p.D490Y
16246	4	156970464	156970464	C	G	C	S	exonic	ACCN5	missense	NM_017419;p.E504D
16246	4	177308239	177308239	G	T	G	K	exonic	WDR17	missense	NM_181265;p.R700I
16246	5	21787987	21787987	C	A	C	M	exonic	CDH12	missense	NM_004061;p.E667D
16246	5	31352193	31352193	G	T	G	K	splicing	CDH6	missense	NM_004932;p.Q504H
16246	5	33719744	33719744	A	T	A	W	exonic	ADAMTS12	missense	NM_030955;p.Y270N
16246	5	71526425	71526425	A	G	A	R	exonic	MAP1B	missense	NM_005909;p.Y496C
16246	5	82852097	82852097	C	A	C	M	exonic	VCAN	missense	NM_001164098;p.S739Y
16246	5	110740487	110740487	A	T	A	W	exonic	CAMK4	missense	NM_001744;p.T112S
16246	5	114888617	114888617	T	A	T	W	exonic	FEM1C	missense	NM_020177;p.S381C
16246	5	133899453	133899453	G	T	G	K	exonic	PHF15	nonsense	NM_015288;p.E3X
16246	5	140217336	140217336	G	T	G	K	exonic	PCDHA10	missense	NM_018901;p.V507L
16246	5	140328836	140328836	G	T	G	K	exonic	PCDHAC2	missense	NM_018899;p.R767S
16246	5	140553280	140553280	G	A	G	R	exonic	PCDHB10	missense	NM_018930;p.G324D
16246	5	156522864	156522864	C	A	C	M	exonic	FAM71B	missense	NM_130899;p.M330I
16246	5	180271123	180271123	G	T	G	K	exonic	BTNL8	missense	NM_001040462;p.E192D
16246	6	29664097	29664097	A	G	A	R	exonic	OR2H2	missense	NM_007160;p.I133V
16246	6	30660032	30660032	G	T	G	K	exonic	ABCF1	missense	NM_001090;p.R358L
16246	6	36149470	36149470	C	G	C	S	exonic	MAPK14	missense	NM_139012;p.H148D
16246	6	36760026	36760026	C	G	C	S	exonic	CDKN1A	missense	NM_000389;p.T57R
16246	6	49773613	49773613	G	T	G	K	exonic	CRISP2	missense	NM_001142435;p.T145N
16246	6	54912618	54912618	G	T	G	K	exonic	FAM83B	missense	NM_001010872;p.G297V
16246	6	55331760	55331760	G	T	G	K	exonic	GFRAL	missense	NM_207410;p.D273Y
16246	6	130577347	130577347	C	T	C	Y	exonic	SAMD3	missense	NM_152552;p.A33T
16246	7	5063451	5063451	G	T	G	K	splicing	RBAK	NA	NA
16246	7	43485806	43485806	C	A	C	M	exonic	HECW1	missense	NM_015052;p.L1058I
16246	7	47839212	47839212	C	A	C	M	splicing	PKD1L1	NA	NA
16246	7	57192531	57192531	C	G	C	S	exonic	ZNF479	missense	NM_033273;p.R178T
16246	7	81177454	81177454	C	G	C	S	exonic	HGF	missense	NM_000601;p.V496L
16246	7	81474930	81474930	C	A	C	M	splicing	CACNA2D1	NA	NA
16246	7	92663108	92663108	A	G	A	R	exonic	HEPACAM2	missense	NM_198151;p.V403A
16246	7	128274184	128274184	G	T	G	K	exonic	FLNC	missense	NM_001127487;p.R1426L
16246	8	22221497	22221497	G	T	G	K	exonic	PIWIL2	missense	NM_018068;p.R551L
16246	8	41649300	41649300	C	A	C	M	exonic	ANK1	nonsense	NM_000037;p.E1609X
16246	8	41909236	41909236	C	A	C	M	exonic	MYST3	missense	NM_001099412;p.G1887C
16246	8	87752334	87752334	C	G	C	S	exonic	CNGB3	missense	NM_019098;p.K149N
16246	8	139279007	139279007	G	C	G	S	exonic	FAM135B	missense	NM_015912;p.R253G
16246	8	139279008	139279008	G	T	G	K	exonic	FAM135B	nonsense	NM_015912;p.Y252X

16246	9	17399373	17399373	G	T	G	K	exonic	CNTLN	nonsense	NM_017738:p.G900X
16246	9	17447637	17447637	C	T	C	Y	exonic	CNTLN	missense	NM_017738:p.P1077L
16246	9	34333373	34333373	C	T	C	Y	exonic	NUDT2	nonsense	NM_147173:p.Q127X
16246	9	35652529	35652529	G	A	G	R	exonic	C9orf100	missense	NM_032818:p.P295S
16246	9	70818178	70818178	G	C	G	S	exonic	PRKACG	missense	NM_002732:p.N217K
16246	9	105925235	105925235	G	A	G	R	exonic	SMC2	missense	NM_001042550:p.E720K
16246	9	111745274	111745274	G	T	G	K	exonic	PALM2	missense	NM_001037293:p.K296N
16246	9	120970102	120970102	A	T	A	W	exonic	DBC1	missense	NM_014618:p.L456Q
16246	9	124185702	124185702	G	T	G	K	exonic	PTGS1	missense	NM_080591:p.V286L
16246	9	137785615	137785615	C	T	C	Y	exonic	KCNT1	missense	NM_020822:p.P149L
16246	10	21169757	21169757	C	A	C	M	exonic	NEBL	nonsense	NM_006393:p.E419X
16246	10	28269742	28269742	T	A	T	W	splicing	ARMC4	NA	NA
16246	10	28313121	28313121	G	A	G	R	exonic	ARMC4	missense	NM_018076:p.S227L
16246	10	37526406	37526406	T	A	T	W	exonic	ANKRD30A	nonsense	NM_052997:p.L847X
16246	10	50489118	50489118	C	A	C	M	exonic	SLC18A3	nonsense	NM_003055:p.S109X
16246	10	55251824	55251824	C	A	C	M	exonic	PCDH15	missense	NM_001142766:p.A1887S
16246	10	55368593	55368593	C	A	C	M	exonic	PCDH15	missense	NM_001142766:p.V1121F
16246	10	62322690	62322690	C	A	C	M	exonic	RHOBTB1	missense	NM_014836:p.W122C
16246	10	68969392	68969392	G	T	G	K	exonic	CTNNA3	missense	NM_013266:p.P112T
16246	10	82321273	82321273	G	T	G	K	exonic	SH2D4B	missense	NM_001145719:p.A103S
16246	10	96084464	96084464	A	G	A	R	splicing	NOC3L	missense	NM_022451:p.S731P
16246	10	118218695	118218695	C	G	C	S	exonic	PNLIPRP3	missense	NM_001011709:p.C312W
16246	11	6870078	6870078	A	C	A	M	exonic	OR2D2	missense	NM_003700:p.I77R
16246	11	10741988	10741988	C	T	C	Y	exonic	CTR9	nonsense	NM_014633:p.R394X
16246	11	11271235	11271235	C	A	C	M	exonic	GALNTL4	missense	NM_198516:p.V532L
16246	11	12182371	12182371	A	G	A	R	splicing	MICAL2	NA	NA
16246	11	22354755	22354755	G	T	G	K	exonic	SLC17A6	missense	NM_020346:p.M458I
16246	11	35410952	35410952	A	T	A	W	exonic	PAMR1	missense	NM_001001991:p.L564Q
16246	11	46356600	46356600	G	C	G	S	exonic	DGKZ	missense	NM_001199267:p.A797P
16246	11	55175707	55175707	C	A	C	M	exonic	OR4S2	missense	NM_001004059:p.P251H
16246	11	55814264	55814264	A	T	A	W	exonic	OR8H1	missense	NM_001005199:p.L284Q
16246	11	61915584	61915584	G	T	G	K	exonic	ASRGL1	missense	NM_001083926:p.A209S
16246	11	77090162	77090162	T	A	T	W	exonic	RSF1	missense	NM_016578:p.K587M
16246	11	88775269	88775269	G	A	G	R	exonic	NOX4	missense	NM_016931:p.P240L
16246	11	92535576	92535576	C	A	C	M	exonic	SLC36A4	missense	NM_152313:p.M327I
16246	11	123316334	123316334	G	T	G	K	exonic	OR4D5	missense	NM_001001965:p.M267I
16246	11	123918082	123918082	T	A	T	W	exonic	OR8B12	missense	NM_001005195:p.N227Y
16246	12	14501436	14501436	G	T	G	K	exonic	ATF7IP	nonsense	NM_018179:p.E700X
16246	12	21856355	21856355	T	A	T	W	exonic	ABCC9	missense	NM_020298:p.K1333I
16246	12	29532011	29532011	-	A	C	*/+A	exonic	OVCH1	FS_ins	NM_183378:p.W258fs
16246	12	29532012	29532012	C	A	C	M	exonic	OVCH1	missense	NM_183378:p.W258L
16246	12	65074318	65074318	C	A	C	M	exonic	GRIP1	missense	NM_021150:p.G637V
16246	12	65074319	65074319	C	A	C	M	exonic	GRIP1	nonsense	NM_021150:p.G637X
16246	12	68357094	68357094	T	A	T	W	exonic	BEST3	missense	NM_032735:p.T246S
16246	12	75265415	75265415	T	C	T	Y	exonic	BBS10	missense	NM_024685:p.K161E
16246	12	108714849	108714849	C	G	C	S	exonic	TRPV4	missense	NM_021625:p.M605I
16246	12	119076079	119076079	G	T	G	K	exonic	GCN1L1	missense	NM_006836:p.A1240D
16246	13	42832012	42832012	C	A	C	M	exonic	ENOX1	missense	NM_017993:p.M188I
16246	13	47839630	47839630	G	T	G	K	splicing	RB1	NA	NA
16246	13	52317664	52317664	G	C	G	S	exonic	PCDH8	missense	NM_032949:p.F815L
16246	13	53913438	53913438	T	A	T	W	intergenic	NA	NA	NA
16246	13	57196798	57196798	C	A	C	M	exonic	PCDH17	missense	NM_001040429:p.S950Y
16246	13	76678855	76678855	C	A	C	M	exonic	MYCBP2	nonsense	NM_015057:p.E1175X
16246	13	111770173	111770173	G	C	G	S	exonic	SOX1	missense	NM_005986:p.R67P
16246	13	113336326	113336326	G	T	G	K	exonic	TFDP1	missense	NM_007111:p.A199S
16246	14	19459043	19459043	G	C	G	S	exonic	OR4K5	missense	NM_001005483:p.M146I
16246	14	19552605	19552605	C	A	C	M	exonic	OR4K14	missense	NM_001004712:p.L196F
16246	14	19827727	19827727	C	A	C	M	exonic	TTC5	missense	NM_138376:p.V408F
16246	14	21172217	21172217	C	G	C	S	exonic	OR10G2	missense	NM_001005466:p.V208L
16246	14	21203244	21203244	G	T	G	K	exonic	OR4E2	missense	NM_001001912:p.M36I
16246	14	62958477	62958477	C	A	C	M	exonic	PPP2R5E	missense	NM_006246:p.W148L
16246	14	63533554	63533554	T	C	T	Y	exonic	SYNE2	missense	NM_182914:p.I1026T
16246	14	87470917	87470917	T	C	T	Y	exonic	GALC	missense	NM_001201402:p.N631S
16246	14	88053316	88053316	G	A	G	R	exonic	PTPN21	missense	NM_007039:p.R75C
16246	14	93149139	93149139	G	T	G	K	exonic	KIAA1409	missense	NM_020818:p.R1156L
16246	14	104810121	104810121	G	A	G	R	exonic	BRF1	missense	NM_001519:p.R141C
16246	15	19884458	19884458	C	A	C	M	exonic	OR4N4	missense	NM_001005241:p.L208I
16246	15	22473165	22473165	C	A	C	M	exonic	C15orf2	missense	NM_018958:p.P353Q
16246	15	41608887	41608887	C	T	C	Y	exonic	MAP1A	missense	NM_002373:p.R2642W
16246	15	43200125	43200125	G	A	G	R	exonic	DUOXA1	missense	NM_144565:p.R171C
16246	15	48337979	48337979	G	T	G	K	exonic	HDC	missense	NM_002112:p.H78N
16246	15	50454813	50454813	C	A	C	M	exonic	MYOSA	missense	NM_001142495:p.A853S
16246	15	82496738	82496738	G	T	G	K	exonic	ADAMTSL3	missense	NM_207517:p.C1655F
16246	15	98620146	98620146	C	A	C	M	exonic	ADAMTSL7	missense	NM_139057:p.Q269H
16246	16	5050415	5050415	C	A	C	M	exonic	C16orf89	missense	NM_152459:p.G128W
16246	16	17142599	17142599	C	A	C	M	exonic	XYLT1	missense	NM_022166:p.R500L
16246	16	32798475	32798475	G	T	G	K	ncRNA	SLC6A10P	NA	NA
16246	16	46778644	46778644	T	C	T	Y	exonic	ABCC11	missense	NM_032583:p.I968V
16246	16	63539408	63539408	C	G	C	S	exonic	CDH11	missense	NM_001797:p.D664H

16246	16	69139841	69139841	T	C	T	Y	exonic	SF3B3	missense	NM_012426:p.L466T
16246	16	82681999	82681999	T	A	T	W	exonic	MBTPS1	missense	NM_003791:p.N338I
16246	16	84370919	84370919	T	A	T	W	exonic	COX4NB	missense	NM_006067:p.S177C
16246	17	17059275	17059275	T	G	T	K	exonic	FLCN	missense	NM_144997:p.S461R
16246	17	27373487	27373487	G	T	G	K	exonic	LRR37B	missense	NM_052888:p.K403N
16246	17	30714797	30714797	C	G	C	S	exonic	SLFN11	missense	NM_001104588:p.R48P
16246	17	36977527	36977527	C	A	C	M	splicing	KRT9	nonsense	NM_000226:p.E466X
16246	17	52689481	52689481	G	T	G	K	exonic	MSI2	missense	NM_138962:p.S29I
16246	17	53588105	53588105	C	A	C	M	exonic	OR4D1	missense	NM_012374:p.L198I
16246	17	58191092	58191092	C	A	C	M	exonic	40978	missense	NM_152598:p.S73I
16246	17	58925040	58925040	G	T	G	K	exonic	ACE	missense	NM_000789:p.K1054N
16246	18	62362396	62362396	C	A	C	M	exonic	CDH19	missense	NM_021153:p.V336F
16246	19	2071963	2071963	G	A	G	R	exonic	AP3D1	missense	NM_003938:p.S460F
16246	19	45097772	45097772	G	C	G	S	exonic	FCGBP	missense	NM_003890:p.S1638R
16246	19	60739402	60739402	-	A	C	*/+A	exonic	SBK2	FS_ins	NM_001101401:p.L24fs
16246	19	62716231	62716231	G	T	G	K	intergenic	NA	NA	NA
16246	20	13788008	13788008	G	T	G	K	exonic	SEL1L2	missense	NM_025229:p.T573K
16246	20	17410614	17410614	G	T	G	K	exonic	PCSK2	missense	NM_002594:p.D606Y
16246	20	47563101	47563101	G	T	G	K	exonic	PTGIS	missense	NM_000961:p.L377M
16246	20	57032325	57032325	C	G	C	S	exonic	TUBB1	missense	NM_030773:p.L150V
16246	20	57199503	57199503	C	A	C	M	exonic	ZNF831	missense	NM_178457:p.P12T
16246	21	46376727	46376727	C	A	C	M	exonic	COL6A2	missense	NM_001849:p.R965S
16246	22	38546947	38546947	C	T	C	Y	exonic	ENTHD1	missense	NM_152512:p.A277T
16246	X	22042611	22042611	G	C	G	S	exonic	PHEX	missense	NM_000444:p.D430H
16246	X	31406308	31406308	A	T	A	W	exonic	DMD	missense	NM_004020:p.W465R
16246	X	50072283	50072283	C	G	C	S	exonic	CCNB3	missense	NM_033031:p.P1112A
16246	X	68666254	68666254	G	T	G	K	exonic	FAM155B	missense	NM_015686:p.Q383H
16246	X	78504837	78504837	G	T	G	K	exonic	ITM2A	missense	NM_001171581:p.T106N
16246	X	86773997	86773997	G	T	G	K	exonic	KLHL4	missense	NM_019117:p.G486C
16246	X	91019650	91019650	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.R585S
16246	X	91760002	91760002	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.A1141S
16246	X	107864602	107864602	G	T	G	K	exonic	IRS4	missense	NM_003604:p.N543K
16246	X	108583482	108583482	C	A	C	M	exonic	GUCY2F	missense	NM_001522:p.R432L
16246	X	135326312	135326312	C	A	C	M	exonic	GPR112	missense	NM_153834:p.P3080H
16246	X	139414783	139414783	G	T	G	K	exonic	SOX3	missense	NM_005634:p.H37N
16246	X	152622612	152622612	T	C	T	Y	exonic	BCAP31	missense	NM_001139457:p.K225R
16246	M	9622	9622	G	C	G	S	intergenic	NA	NA	NA
16461	1	7756105	7756105	G	C	G	S	exonic	VAMP3	missense	NM_004781:p.A7P
16461	1	12339107	12339107	G	T	G	K	exonic	VPS13D	nonsense	NM_018156:p.E3288X
16461	1	16134669	16134669	C	A	C	M	exonic	SPEN	missense	NM_015001:p.A3116E
16461	1	23641615	23641615	C	A	C	M	exonic	ASAP3	missense	NM_001143778:p.R175I
16461	1	32616203	32616203	C	A	C	M	exonic	BSDC1	missense	NM_018045:p.A211S
16461	1	33771372	33771372	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.G3202W
16461	1	40549796	40549796	C	-	T	*/-C	exonic	COL9A2	FS_del	NM_001852:p.G161fs
16461	1	44194878	44194878	T	C	T	Y	exonic	IPO13	missense	NM_014652:p.M341T
16461	1	64416573	64416573	G	A	G	R	exonic	ROR1	missense	NM_005012:p.S754N
16461	1	65006966	65006966	T	A	T	W	exonic	RAVER2	missense	NM_018211:p.C97S
16461	1	65117298	65117298	C	G	C	S	exonic	JAK1	missense	NM_002227:p.M109I
16461	1	65803854	65803854	C	A	C	M	exonic	LEPR	missense	NM_001198689:p.F6L
16461	1	70277699	70277699	C	A	C	M	exonic	LRR37	missense	NM_020794:p.Q1164K
16461	1	78181025	78181025	G	C	G	S	exonic	NEXN	missense	NM_144573:p.E651Q
16461	1	84420489	84420489	G	C	G	S	exonic	PRKACB	missense	NM_207578:p.D43H
16461	1	89298578	89298578	T	C	T	Y	exonic	GBP1	missense	NM_002053:p.T70A
16461	1	99160143	99160143	G	T	G	K	exonic	LPPR5	nonsense	NM_001010861:p.C227X
16461	1	148187543	148187543	T	A	T	W	exonic	OTUD7B	missense	NM_020205:p.K397M
16461	1	149662617	149662617	C	G	C	S	exonic	POGZ	missense	NM_001194938:p.D458H
16461	1	150903301	150903301	C	G	C	S	exonic	LCE2D	missense	NM_178430:p.C32W
16461	1	156418740	156418740	T	A	T	W	intronic	CD1D	NA	NA
16461	1	156936697	156936697	C	A	C	M	exonic	OR6K2	missense	NM_001005279:p.A124S
16461	1	167750274	167750274	G	T	G	K	exonic	F5	missense	NM_000130:p.F2192L
16461	1	175265395	175265395	C	A	C	M	exonic	ASTN1	missense	NM_207108:p.R373I
16461	1	180812038	180812038	T	A	T	W	exonic	RNASEL	missense	NM_021133:p.H672L
16461	1	181339370	181339370	G	T	G	K	exonic	LAMC1	missense	NM_002293:p.D235Y
16461	1	181763743	181763743	G	T	G	K	exonic	SMG7	nonsense	NM_173156:p.E172X
16461	1	194494218	194494218	C	A	C	M	exonic	KCNT2	missense	NM_198503:p.W980C
16461	1	195665224	195665224	G	T	G	K	exonic	CRB1	missense	NM_001193640:p.G788V
16461	1	198851269	198851269	T	C	T	Y	exonic	KIF14	missense	NM_014875:p.I402V
16461	1	198853747	198853747	T	A	T	W	exonic	KIF14	missense	NM_014875:p.K243M
16461	1	200106381	200106381	A	C	A	M	exonic	IPO9	missense	NM_018085:p.Q727H
16461	1	201012799	201012799	G	A	G	R	exonic	KDM5B	missense	NM_006618:p.T84M
16461	1	212237508	212237508	A	G	A	R	exonic	PROX1	missense	NM_002763:p.H336R
16461	1	214318104	214318104	C	A	C	M	exonic	USH2A	missense	NM_206933:p.G1841V
16461	1	228405582	228405582	C	G	C	S	exonic	GALNT2	nonsense	NM_004481:p.Y99X
16461	1	233449801	233449801	C	G	C	S	exonic	ARID4B	missense	NM_016374:p.D505H
16461	1	234713460	234713460	G	C	G	S	UTR3	EDARADD	NA	NA
16461	1	239098706	239098706	G	T	G	K	exonic	RG57	missense	NM_002924:p.Q174K
16461	1	245125766	245125766	T	A	T	W	exonic	AHCTF1	missense	NM_015446:p.T579S
16461	1	245902419	245902419	G	A	G	R	exonic	OR13G1	missense	NM_001005487:p.A183V
16461	2	8921771	8921771	C	A	C	M	exonic	MBOAT2	missense	NM_138799:p.Q344H



16461	2	9493915	9493915	G	T	G	K	exonic	CPSF3	missense	NM_016207:p.R245M
16461	2	11251832	11251832	C	A	C	M	splicing	ROCK2	NA	NA
16461	2	31032074	31032074	C	T	C	Y	exonic	GALNT14	missense	NM_024572:p.A190T
16461	2	39746692	39746692	C	A	C	M	exonic	TMEM178	missense	NM_152390:p.A25D
16461	2	53889047	53889047	G	C	G	S	exonic	ERLEC1	missense	NM_001127397:p.L329F
16461	2	71759850	71759850	G	C	G	S	exonic	DYSF	missense	NM_001130987:p.E2014Q
16461	2	86685770	86685770	T	C	T	Y	exonic	RNF103	missense	NM_005667:p.I255M
16461	2	88206980	88206980	G	C	G	S	exonic	FABP1	missense	NM_001443:p.L24V
16461	2	95210770	95210770	G	T	G	K	exonic	ZNF2	missense	NM_021088:p.R157L
16461	2	99990278	99990278	G	T	G	K	exonic	AFF3	missense	NM_001025108:p.T109N
16461	2	104839461	104839461	T	A	T	W	exonic	POU3F3	missense	NM_006236:p.V354E
16461	2	116227290	116227290	C	A	C	M	exonic	DPP10	missense	NM_001004360:p.Q334K
16461	2	127978729	127978729	C	G	C	S	splicing	IWS1	NA	NA
16461	2	140845229	140845229	C	T	C	Y	exonic	LRP1B	missense	NM_018557:p.G3622S
16461	2	141174422	141174422	C	A	C	M	exonic	LRP1B	missense	NM_018557:p.K2222N
16461	2	165919106	165919106	G	T	G	K	exonic	SCN2A	missense	NM_021007:p.Q1026H
16461	2	170523284	170523284	T	A	T	W	splicing	UBR3	NA	NA
16461	2	179323490	179323490	C	A	C	M	exonic	TTN	missense	NM_133379:p.C3961F
16461	2	190041483	190041483	C	G	C	S	exonic	WDR75	missense	NM_032168:p.L556V
16461	2	196892456	196892456	T	A	T	W	exonic	HECW2	missense	NM_020760:p.E468V
16461	2	196895457	196895457	G	T	G	K	exonic	HECW2	missense	NM_020760:p.Q292K
16461	2	202311651	202311651	C	A	C	M	exonic	ALS2	missense	NM_020919:p.A802S
16461	2	207340018	207340018	C	G	C	S	exonic	FASTKD2	missense	NM_014929:p.S119C
16461	2	215526903	215526903	C	T	C	Y	exonic	ABCA12	missense	NM_173076:p.M2189I
16461	2	220079305	220079305	C	T	C	Y	exonic	GMPPA	missense	NM_205847:p.P360L
16461	2	230369622	230369622	T	C	T	Y	exonic	TRIP12	missense	NM_004238:p.K1174E
16461	3	7696961	7696961	T	A	T	W	exonic	GRM7	missense	NM_000844:p.C893S
16461	3	9388215	9388215	G	A	G	R	exonic	THUMPD3	missense	NM_015453:p.V268M
16461	3	27734163	27734163	C	A	C	M	exonic	EOMES	missense	NM_005442:p.R488L
16461	3	43616949	43616949	T	C	T	Y	exonic	ANO10	missense	NM_018075:p.K90E
16461	3	47274025	47274025	C	T	C	Y	exonic	KIF9	missense	NM_022342:p.M337I
16461	3	49058972	49058972	C	A	C	M	exonic	QRICH1	missense	NM_198880:p.V521L
16461	3	49136022	49136022	C	A	C	M	exonic	LAMB2	missense	NM_002292:p.D1282Y
16461	3	49637551	49637551	G	C	G	S	exonic	BSN	missense	NM_003458:p.A122P
16461	3	49670477	49670477	C	A	C	M	exonic	BSN	missense	NM_003458:p.F2828L
16461	3	52521651	52521651	G	A	G	R	splicing	STAB1	NA	NA
16461	3	52527045	52527045	G	T	G	K	exonic	STAB1	missense	NM_015136:p.A1583S
16461	3	62331016	62331016	G	T	G	K	exonic	FEZF2	missense	NM_018008:p.Q388K
16461	3	69133464	69133464	T	A	T	W	exonic	C3orf64	missense	NM_173654:p.M238L
16461	3	77678297	77678297	C	T	C	Y	exonic	ROBO2	nonsense	NM_001128929:p.Q332X
16461	3	95708376	95708376	T	G	T	K	intergenic	NA	NA	NA
16461	3	114996650	114996650	G	T	G	K	exonic	ATP6V1A	missense	NM_001690:p.G379C
16461	3	120106213	120106213	C	A	C	M	exonic	IGSF11	nonsense	NM_152538:p.E275X
16461	3	120617611	120617611	C	A	C	M	exonic	ARHGAP31	missense	NM_020754:p.T1382K
16461	3	121008984	121008984	G	T	G	K	splicing	NR1I2	missense	NM_033013:p.R66M
16461	3	132776642	132776642	A	C	A	M	exonic	CPNE4	missense	NM_130808:p.L297W
16461	3	166199044	166199044	G	T	G	K	exonic	SI	missense	NM_001041:p.D1506E
16461	3	170316012	170316012	C	A	C	M	exonic	MECOM	missense	NM_001163999:p.S594I
16461	3	182148360	182148360	C	T	C	Y	exonic	FXR1	missense	NM_001013438:p.A71V
16461	3	185365290	185365290	A	G	A	R	exonic	DVL3	missense	NM_004423:p.N159S
16461	3	192419303	192419303	C	G	C	S	exonic	OSTN	missense	NM_198184:p.T59R
16461	3	197871164	197871164	A	T	A	W	exonic	LRR33	missense	NM_198565:p.S85C
16461	4	1331974	1331974	G	T	G	K	exonic	KIAA1530	missense	NM_020894:p.C32F
16461	4	1378655	1378655	A	T	A	W	exonic	CRIPAK	missense	NM_175918:p.H119L
16461	4	47637581	47637581	G	T	G	K	exonic	CNGA1	nonsense	NM_001142564:p.S276X
16461	4	56457800	56457800	T	G	T	K	exonic	EXOC1	missense	NM_018261:p.L705R
16461	4	57571330	57571330	G	T	G	K	exonic	POLR2B	missense	NM_000938:p.R484L
16461	4	68885405	68885405	G	C	G	S	exonic	YTHDC1	missense	NM_133370:p.S273C
16461	4	85927757	85927757	G	C	G	S	exonic	WDFY3	missense	NM_014991:p.T1268R
16461	4	89602386	89602386	C	A	C	M	exonic	HERC5	missense	NM_016323:p.P182T
16461	4	111617255	111617255	C	T	C	Y	exonic	ENPEP	missense	NM_001977:p.P79L
16461	4	114497796	114497796	G	C	G	S	exonic	ANK2	missense	NM_001148:p.G2858A
16461	4	126592414	126592414	G	C	G	S	exonic	FAT4	missense	NM_024582:p.G3598A
16461	4	151373357	151373357	A	C	A	M	exonic	DCLK2	missense	NM_001040261:p.N515T
16461	4	154011414	154011414	C	G	C	S	exonic	ARFIP1	missense	NM_001025595:p.L88V
16461	4	166440254	166440254	C	G	C	S	exonic	KLHL2	missense	NM_001161522:p.P218R
16461	4	177320231	177320231	A	T	A	W	exonic	WDR17	missense	NM_181265:p.K921I
16461	5	11045745	11045745	G	C	G	S	exonic	CTNND2	missense	NM_001332:p.I1043M
16461	5	32127020	32127020	G	C	G	S	exonic	PZDZ2	missense	NM_178140:p.R2570T
16461	5	38524973	38524973	C	G	C	S	exonic	LIFR	missense	NM_002310:p.E767Q
16461	5	50156547	50156547	G	A	G	R	exonic	PARP8	missense	NM_001178056:p.A595T
16461	5	52251931	52251931	G	C	G	S	exonic	ITGA1	missense	NM_181501:p.R723P
16461	5	56210598	56210598	G	T	G	K	exonic	MAP3K1	missense	NM_005921:p.C667F
16461	5	98221948	98221948	C	A	C	M	exonic	CHD1	missense	NM_001270:p.R1541S
16461	5	112207331	112207331	G	A	G	R	exonic	APC	missense	NM_000038:p.R2714H
16461	5	128348808	128348808	G	C	G	S	exonic	SLC27A6	missense	NM_014031:p.G189R
16461	5	138735759	138735759	G	C	G	S	exonic	SLC23A1	nonsense	NM_152685:p.Y548X
16461	5	140495585	140495585	C	A	C	M	exonic	PCDH5	missense	NM_015669:p.H129N
16461	5	140543660	140543660	G	C	G	S	exonic	PCDH16	missense	NM_020957:p.A448P

16461	5	140554588	140554588	G	T	G	K	exonic	PCDHB10	missense	NM_018930:p.G760V
16461	5	140568759	140568759	C	A	C	M	exonic	PCDHB12	missense	NM_018932:p.N32K
16461	5	140700677	140700677	C	A	C	M	exonic	PCDHGA2	missense	NM_018915:p.P652H
16461	5	147908544	147908544	G	A	G	R	exonic	HTR4	missense	NM_001040173:p.A78V
16461	5	179065886	179065886	C	T	C	Y	exonic	CANX	missense	NM_001746:p.P655
16461	6	3171032	3171032	G	T	G	K	exonic	TUBB2B	missense	NM_178012:p.A97D
16461	6	4044368	4044368	G	T	G	K	exonic	C6orf201	missense	NM_001085401:p.W74L
16461	6	24564784	24564784	C	A	C	M	exonic	GPLD1	missense	NM_001503:p.G357C
16461	6	26199257	26199257	C	T	C	Y	exonic	HFE	missense	NM_139006:p.H96Y
16461	6	28401960	28401960	T	A	T	W	exonic	ZNF323	nonsense	NM_001135216:p.K395X
16461	6	29749119	29749119	G	C	G	S	exonic	ZFP57	missense	NM_001109809:p.R250G
16461	6	32038283	32038283	G	T	G	K	exonic	SKIV2L	missense	NM_006929:p.G385W
16461	6	36550754	36550754	A	G	A	R	exonic	KCTD20	missense	NM_173562:p.D124G
16461	6	41992505	41992505	G	C	G	S	exonic	MED20	missense	NM_004275:p.S55R
16461	6	42959231	42959231	A	T	A	W	exonic	RPL71	missense	NM_198486:p.Q62L
16461	6	50894630	50894630	G	C	G	S	exonic	TFAP2B	missense	NM_003221:p.E23Q
16461	6	55236465	55236465	T	-	G	*/-T	splicing	HCRTR2	FS_del	NM_001526:p.G216fs
16461	6	94177383	94177383	G	A	G	R	exonic	EPHA7	missense	NM_004440:p.T130I
16461	6	117220453	117220453	-	AGGT	C	*/+AGG	exonic	GPRC6A	FS_ins	NM_148963:p.E776fs
16461	6	126283848	126283848	G	T	G	K	exonic	NCOA7	nonsense	NM_001199621:p.E656X
16461	6	143134953	143134953	C	A	C	M	exonic	HIVEP2	missense	NM_006734:p.Q872H
16461	6	147676751	147676751	A	T	A	W	exonic	STXBPS	missense	NM_001127715:p.H395L
16461	6	150309322	150309322	G	C	G	S	exonic	ULBP2	missense	NM_025217:p.M157I
16461	6	152748603	152748603	C	A	C	M	exonic	SYNE1	nonsense	NM_182961:p.E2851X
16461	6	159380240	159380240	T	A	T	W	exonic	TAGAP	missense	NM_152133:p.N48I
16461	7	7496765	7496765	C	G	C	S	exonic	COL28A1	missense	NM_001037763:p.G355A
16461	7	36412459	36412459	C	T	C	Y	exonic	ANLN	missense	NM_018685:p.S211F
16461	7	45716690	45716690	G	C	G	S	exonic	ADCY1	missense	NM_021116:p.A991P
16461	7	51063727	51063727	C	A	C	M	exonic	COBL	missense	NM_015198:p.V854F
16461	7	53071619	53071619	C	A	C	M	exonic	POM121L12	missense	NM_182595:p.S254Y
16461	7	55427007	55427007	C	A	C	M	exonic	LANCL2	missense	NM_018697:p.Q78K
16461	7	77217048	77217048	G	T	G	K	exonic	RSBN1L	missense	NM_198467:p.A359S
16461	7	89765052	89765052	G	T	G	K	exonic	C7orf63	missense	NM_001160138:p.G592V
16461	7	90422981	90422981	C	T	C	Y	exonic	CDK14	missense	NM_012395:p.T269I
16461	7	95272032	95272032	G	T	G	K	exonic	DYNC11	missense	NM_001135556:p.A19S
16461	7	100625934	100625934	G	T	G	K	UTR3	MOGAT3	NA	NA
16461	7	107607974	107607974	T	A	T	W	exonic	NRCAM	missense	NM_001193582:p.N927I
16461	7	121395349	121395349	A	G	A	R	exonic	PTPRZ1	missense	NM_002851:p.K78R
16461	7	131563655	131563655	T	A	T	W	exonic	PLXNA4	missense	NM_020911:p.Y573F
16461	7	133783782	133783782	C	T	C	Y	exonic	AKR1B1	missense	NM_001628:p.E186K
16461	7	151591120	151591120	C	A	C	M	exonic	MLL3	missense	NM_170606:p.V405L
16461	8	1795734	1795734	G	C	G	S	exonic	ARHGEF10	missense	NM_014629:p.C153S
16461	8	19861109	19861109	T	A	T	W	exonic	LPL	missense	NM_000237:p.N359K
16461	8	24830935	24830935	G	C	G	S	exonic	NEFM	missense	NM_005382:p.E554D
16461	8	32719769	32719769	A	T	A	W	exonic	NRG1	missense	NM_001160004:p.N223Y
16461	8	34300380	34300380	T	G	T	K	intergenic	NA	NA	NA
16461	8	86229469	86229469	A	T	A	W	exonic	LRRCC1	nonsense	NM_033402:p.R564X
16461	8	87626140	87626140	G	T	G	K	exonic	CPNE3	missense	NM_003909:p.Q230H
16461	8	91051864	91051864	C	G	C	S	exonic	NBN	missense	NM_002485:p.G267A
16461	8	103379883	103379883	C	T	C	Y	exonic	UBR5	missense	NM_015902:p.G1113R
16461	8	134194857	134194857	G	C	G	S	exonic	TG	missense	NM_003235:p.E2528Q
16461	8	139675499	139675499	G	A	G	R	exonic	COL22A1	missense	NM_152888:p.P1520S
16461	8	139784745	139784745	C	A	C	M	exonic	COL22A1	missense	NM_152888:p.G849W
16461	8	139902637	139902637	A	T	A	W	exonic	COL22A1	missense	NM_152888:p.I390N
16461	9	8309927	8309927	G	T	G	K	exonic	PTPRD	missense	NM_002839:p.S1858R
16461	9	34600809	34600809	C	A	C	M	exonic	C9orf23	missense	NM_148178:p.R162L
16461	9	39078457	39078457	G	C	G	S	exonic	CNTNAP3	missense	NM_033655:p.F1061L
16461	9	72669189	72669189	G	T	G	K	exonic	TRPM3	missense	NM_001007471:p.P79H
16461	9	93525846	93525846	T	G	T	K	exonic	ROR2	missense	NM_004560:p.E917D
16461	9	98325694	98325694	C	T	C	Y	exonic	CDC14B	missense	NM_033331:p.V361M
16461	9	100870706	100870706	G	T	G	K	exonic	COL15A1	missense	NM_001855:p.G1296C
16461	9	105925215	105925215	G	T	G	K	exonic	SMC2	missense	NM_001042550:p.R713L
16461	9	115896000	115896000	G	T	G	K	exonic	KIF12	missense	NM_138424:p.H325N
16461	9	124720755	124720755	G	A	G	R	exonic	ZBTB26	missense	NM_020924:p.A427V
16461	9	128142692	128142692	G	T	G	K	exonic	FAM125B	missense	NM_033446:p.V56L
16461	9	130795698	130795698	A	T	A	W	exonic	NUP188	missense	NM_015354:p.Y974F
16461	9	131937197	131937197	G	T	G	K	exonic	GPR107	missense	NM_001136558:p.Q564H
16461	9	132950840	132950840	C	A	C	M	exonic	LAMC3	missense	NM_006059:p.A1380E
16461	10	18310291	18310291	G	-	A	*/-G	exonic	SLC39A12	FS_del	NM_152725:p.K323fs
16461	10	23522689	23522689	C	A	C	M	exonic	PTF1A	missense	NM_178161:p.H279N
16461	10	24850738	24850738	A	G	A	R	exonic	KIAA1217	missense	NM_001098500:p.N697S
16461	10	34688211	34688211	T	C	T	Y	exonic	PARD3	missense	NM_001184785:p.N646S
16461	10	35882090	35882090	G	T	G	K	exonic	CCNY	missense	NM_181698:p.Q185H
16461	10	54197985	54197985	C	G	C	S	exonic	MBL2	missense	NM_000242:p.C222S
16461	10	59667516	59667516	C	A	C	M	exonic	IPMK	nonsense	NM_152230:p.E86X
16461	10	60219055	60219055	G	T	G	K	exonic	BICC1	nonsense	NM_001080512:p.E210X
16461	10	98277860	98277860	C	T	C	Y	exonic	TM9SF3	missense	NM_020123:p.V487M
16461	10	108417470	108417470	C	A	C	M	exonic	SORCS1	missense	NM_001013031:p.C757F
16461	10	115517207	115517207	A	T	A	W	exonic	C10orf81	missense	NM_001193434:p.Y25F

16461	10	116082968	116082968	A	G	A	R	splicing	AFAP1L2	NA	NA
16461	10	116909801	116909801	T	A	T	W	exonic	ATRN1	nonsense	NM_207303:p.C280X
16461	10	116956529	116956529	G	C	G	S	splicing	ATRN1	NA	NA
16461	10	118425906	118425906	G	T	G	K	exonic	HSPA12A	missense	NM_025015:p.H462N
16461	10	129795058	129795058	G	C	G	S	exonic	MK167	missense	NM_002417:p.S1679C
16461	10	134972884	134972884	G	A	G	R	splicing	ZNF511	missense	NM_145806:p.D52N
16461	11	3072084	3072084	-	A	C	*/+A	exonic	OSBPL5	FS_ins	NM_145638:p.A492fs
16461	11	4572116	4572116	C	A	C	M	exonic	OR521I	nonsense	NM_001005169:p.S91X
16461	11	4977525	4977525	A	T	A	W	exonic	OR51L1	missense	NM_001004755:p.H246L
16461	11	11934293	11934293	G	T	G	K	exonic	USP47	missense	NM_017944:p.D1287Y
16461	11	21551487	21551487	G	T	G	K	exonic	NELL1	missense	NM_201551:p.V733L
16461	11	22355581	22355581	G	-	T	*/-G	exonic	SLC17A6	FS_del	NM_020346:p.G490fs
16461	11	36571231	36571231	G	T	G	K	exonic	RAG2	missense	NM_000536:p.T355N
16461	11	47729390	47729390	T	G	T	K	exonic	FNBPA	missense	NM_015308:p.E222D
16461	11	48284924	48284924	A	C	A	M	exonic	OR45I	missense	NM_001004725:p.M192L
16461	11	49959805	49959805	G	C	G	S	exonic	OR4C12	missense	NM_001005270:p.A270G
16461	11	55015121	55015121	G	T	G	K	intergenic	NA	NA	NA
16461	11	55595275	55595275	C	T	C	Y	intergenic	NA	NA	NA
16461	11	55661538	55661538	G	T	G	K	exonic	OR8J3	missense	NM_001004064:p.A78D
16461	11	55683634	55683634	T	A	T	W	exonic	OR8K5	missense	NM_001004058:p.T246S
16461	11	57926579	57926579	C	A	C	M	exonic	OR5B3	nonsense	NM_001005469:p.E294X
16461	11	58031411	58031411	G	C	G	S	exonic	OR5B21	missense	NM_001005218:p.F248L
16461	11	59387982	59387982	T	G	T	K	exonic	TCN1	missense	NM_001062:p.Q78P
16461	11	63642165	63642165	-	T	C	*/+T	exonic	FLRT1	FS_ins	NM_013280:p.P617fs
16461	11	63842333	63842333	C	G	C	S	exonic	PRDX5	missense	NM_181652:p.Q24E
16461	11	64426087	64426087	T	C	T	Y	exonic	ATG2A	missense	NM_015104:p.R1348G
16461	11	66015639	66015639	C	G	C	S	exonic	DPP3	missense	NM_130443:p.F299L
16461	11	88775234	88775234	G	T	G	T	exonic	NOX4	missense	NM_016931:p.P252T
16461	11	107887533	107887533	T	A	T	W	exonic	EXPH5	missense	NM_015065:p.E1304V
16461	11	123353389	123353389	G	T	G	K	exonic	OR10S1	missense	NM_001004474:p.H74N
16461	12	4504783	4504783	G	A	G	R	exonic	C12orf4	missense	NM_020374:p.S209L
16461	12	9797436	9797436	A	G	A	R	exonic	CD69	missense	NM_001781:p.S170P
16461	12	12868204	12868204	G	C	G	S	exonic	DDX47	missense	NM_016355:p.G295A
16461	12	15561045	15561045	G	C	G	S	exonic	PTPRO	missense	NM_002848:p.G556A
16461	12	32866817	32866817	C	A	C	M	exonic	PKP2	missense	NM_001005242:p.V564L
16461	12	38297145	38297145	T	A	T	W	exonic	ABCD2	missense	NM_005164:p.E344D
16461	12	51196747	51196747	C	A	C	M	exonic	KRT5	missense	NM_000424:p.K460N
16461	12	61830648	61830648	G	T	G	K	exonic	AVPR1A	missense	NM_000706:p.T79K
16461	12	63104652	63104652	G	T	G	K	exonic	XPOT	missense	NM_007235:p.D397Y
16461	12	69342612	69342612	C	T	C	Y	exonic	PTPRR	missense	NM_002849:p.G513E
16461	12	70236666	70236666	A	G	A	R	splicing	LGR5	silent	NM_003667:p.L215L
16461	12	81304740	81304740	G	T	G	K	exonic	C12orf26	missense	NM_032230:p.C96F
16461	12	99130248	99130248	A	T	A	W	exonic	ACTR6	missense	NM_022496:p.D219V
16461	12	104129148	104129148	C	A	C	M	exonic	APPL2	missense	NM_018171:p.K121N
16461	12	116142342	116142342	A	T	A	W	exonic	NOS1	missense	NM_000620:p.L1364H
16461	12	119919728	119919728	C	A	C	M	exonic	HNF1A	missense	NM_000545:p.Q460K
16461	12	128260102	128260102	T	G	T	K	exonic	TMEM132D	missense	NM_133448:p.K453N
16461	12	131891384	131891384	C	A	C	M	exonic	GOLGA3	missense	NM_005895:p.D530Y
16461	13	22803236	22803236	G	A	G	R	exonic	SACS	missense	NM_014363:p.S4260F
16461	13	31876468	31876468	C	T	C	Y	exonic	N4BP2L1	missense	NM_052818:p.E155K
16461	13	74953705	74953705	T	C	T	Y	exonic	TBC1D4	missense	NM_014832:p.Q67R
16461	13	85267386	85267386	C	A	C	M	exonic	SLITRK6	missense	NM_032229:p.G420V
16461	13	95306460	95306460	G	C	G	S	exonic	UGGT2	missense	NM_020121:p.L1321V
16461	13	96437900	96437900	T	A	T	W	exonic	OXGR1	missense	NM_080818:p.I39F
16461	14	19474205	19474205	C	A	C	M	exonic	OR4K1	missense	NM_001004063:p.D180E
16461	14	23690616	23690616	G	T	G	K	exonic	RNF31	missense	NM_017999:p.R607L
16461	14	64803138	64803138	C	T	C	Y	intergenic	NA	NA	NA
16461	14	69514388	69514388	G	A	G	R	splicing	SMOC1	missense	NM_022137:p.G160D
16461	14	72729214	72729214	C	T	C	Y	exonic	PSEN1	nonsense	NM_007318:p.R216X
16461	14	74671438	74671438	T	G	T	K	exonic	TMED10	missense	NM_006827:p.Y188S
16461	14	75418848	75418848	G	T	G	K	exonic	TTL5	missense	NM_015072:p.R1197I
16461	14	95207471	95207471	G	T	G	K	ncRNA	TCL6	NA	NA
16461	15	26184426	26184426	T	A	T	W	exonic	HERC2	missense	NM_004667:p.K601N
16461	15	55794084	55794084	G	C	G	S	exonic	GCOM1	missense	NM_001018090:p.R523P
16461	15	62293196	62293196	T	A	T	W	exonic	CSNK1G1	nonsense	NM_022048:p.K209X
16461	15	71965957	71965957	G	C	G	S	exonic	TBC1D21	missense	NM_153356:p.C243S
16461	15	78988632	78988632	A	G	A	R	exonic	KIAA1199	missense	NM_018689:p.Y576C
16461	16	19566654	19566654	G	T	G	K	exonic	C16orf62	missense	NM_020314:p.E748D
16461	16	21044014	21044014	G	C	G	S	exonic	DNAH3	missense	NM_017539:p.L463V
16461	16	21180114	21180114	G	C	G	S	exonic	CRYM	missense	NM_001888:p.P281R
16461	16	24280320	24280320	G	T	G	K	exonic	CACNG3	missense	NM_006539:p.V195F
16461	16	24487776	24487776	G	T	G	K	exonic	RBBP6	missense	NM_018703:p.R721L
16461	16	24708867	24708867	G	C	G	S	exonic	TNRC6A	missense	NM_014494:p.G468A
16461	16	30013604	30013604	G	A	G	R	intronic	YPEL3	NA	NA
16461	16	30981095	30981095	T	A	T	W	exonic	ZNF668	missense	NM_001172669:p.T242S
16461	16	46680023	46680023	G	T	G	K	exonic	ABCC12	missense	NM_033226:p.L1137I
16461	16	60318499	60318499	T	A	T	W	splicing	CDH8	missense	NM_001796:p.Q512H
16461	16	69512218	69512218	G	A	G	R	exonic	HYDIN	missense	NM_032821:p.T2520M
16461	16	69660817	69660817	G	T	G	K	exonic	HYDIN	missense	NM_001198542:p.H637N

16461	17	6369402	6369402	T	C	T	Y	exonic	PITPNM3	missense	NM_031220:p.Q75R
16461	17	7519186	7519186	C	A	C	M	exonic	TP53	missense	NM_001126117:p.V25F
16461	17	11534021	11534021	G	T	G	K	exonic	DNAH9	missense	NM_001372:p.W1386L
16461	17	23991079	23991079	T	C	T	Y	exonic	KIAA0100	missense	NM_014680:p.M328V
16461	17	24033061	24033061	G	T	G	K	exonic	SUPT6H	missense	NM_003170:p.R511S
16461	17	24034432	24034432	A	T	A	W	exonic	SUPT6H	missense	NM_003170:p.Y633F
16461	17	25536618	25536618	G	C	G	S	exonic	CCDC55	missense	NM_032141:p.E493Q
16461	17	27825015	27825015	G	A	G	R	exonic	PSMD11	missense	NM_002815:p.D243N
16461	17	46178309	46178309	G	T	G	K	exonic	LUC7L3	missense	NM_006107:p.C308F
16461	17	53710397	53710397	C	T	C	Y	exonic	MPO	missense	NM_000250:p.A332T
16461	17	57023200	57023200	C	A	C	M	exonic	NACA2	missense	NM_199290:p.D42Y
16461	17	59303650	59303650	C	A	C	M	exonic	CSH2	missense	NM_022644:p.V159F
16461	17	60287476	60287476	C	T	C	Y	exonic	LRR37A3	missense	NM_199340:p.E1084K
16461	17	60630798	60630798	G	T	G	K	exonic	RG59	missense	NM_001081955:p.D371Y
16461	17	63164444	63164444	G	T	G	K	exonic	NOL11	nonsense	NM_015462:p.E475X
16461	17	64595099	64595099	A	T	A	W	exonic	ABCA6	missense	NM_080284:p.I1270N
16461	18	325206	325206	C	T	C	Y	exonic	COLEC12	missense	NM_130386:p.R451K
16461	18	7030175	7030175	C	T	C	Y	exonic	LAMA1	missense	NM_005559:p.C441Y
16461	18	14514972	14514972	T	A	T	W	exonic	POTEC	missense	NM_001137671:p.L379F
16461	18	14744947	14744947	C	A	C	M	exonic	ANKRD30B	missense	NM_001145029:p.T187N
16461	18	20151119	20151119	C	A	C	M	exonic	OSBPL1A	missense	NM_080597:p.V288L
16461	18	20264297	20264297	A	T	A	W	exonic	IMPACT	nonsense	NM_018439:p.K78X
16461	18	21060333	21060333	G	A	G	R	exonic	ZNF521	missense	NM_015461:p.P516L
16461	18	27352199	27352199	G	C	G	S	splicing	DSG2	NA	NA
16461	18	32552540	32552540	G	C	G	S	exonic	FHOD3	missense	NM_025135:p.R919P
16461	18	37871739	37871739	G	T	G	K	exonic	PIK3C3	missense	NM_002647:p.R642L
16461	18	40784483	40784483	G	C	G	S	exonic	SETBP1	missense	NM_015559:p.E394Q
16461	18	45362743	45362743	G	T	G	K	exonic	LIPG	missense	NM_006033:p.Q350H
16461	18	45820604	45820604	C	G	C	S	exonic	MYO5B	missense	NM_001080467:p.D73H
16461	18	49230869	49230869	G	A	G	R	splicing	DCC	silent	NM_005215:p.E1077E
16461	18	49267252	49267252	C	A	C	M	exonic	DCC	missense	NM_005215:p.P1275Q
16461	18	53175392	53175392	T	A	T	W	exonic	ST8SIA3	missense	NM_015879:p.F185I
16461	18	57318660	57318660	G	T	G	K	exonic	CDH20	missense	NM_031891:p.R202S
16461	19	1779147	1779147	C	G	C	S	exonic	REXO1	missense	NM_020695:p.R214P
16461	19	4122691	4122691	G	T	G	K	exonic	CREB3L3	missense	NM_032607:p.V371L
16461	19	11005877	11005877	G	A	G	R	splicing	SMARCA4	NA	NA
16461	19	19683442	19683442	C	T	C	Y	exonic	ZNF14	missense	NM_021030:p.E550K
16461	19	23628883	23628883	T	G	T	K	exonic	ZNF675	missense	NM_138330:p.Q231P
16461	19	40445307	40445307	T	G	T	K	exonic	LSR	missense	NM_205834:p.V265G
16461	19	41024992	41024992	A	C	A	M	exonic	NPH51	missense	NM_004646:p.L846R
16461	19	47258826	47258826	C	A	C	M	exonic	GRIK5	missense	NM_002088:p.G89V
16461	19	52277392	52277392	C	G	C	S	splicing	ZC3H4	missense	NM_015168:p.G407R
16461	19	63542369	63542369	G	C	G	S	exonic	ZSCAN22	missense	NM_181846:p.Q447H
16461	20	2589617	2589617	T	C	T	Y	splicing	IDH3B	NA	NA
16461	20	5117719	5117719	G	T	G	K	exonic	CDS2	missense	NM_003818:p.V330F
16461	20	8667968	8667968	A	G	A	R	exonic	PLCB1	missense	NM_182734:p.I757V
16461	20	16440125	16440125	T	G	T	K	exonic	KIF16B	missense	NM_001199865:p.K165T
16461	20	34306960	34306960	G	T	G	K	exonic	C20orf4	missense	NM_015511:p.R345I
16461	20	34493952	34493952	C	A	C	M	exonic	DLGAP4	missense	NM_014902:p.R140S
16461	20	43315658	43315658	G	T	G	K	exonic	SLPI	nonsense	NM_003064:p.C72X
16461	20	60553909	60553909	C	G	C	S	ncRNA	C20orf200	NA	NA
16461	21	21704508	21704508	G	C	G	S	exonic	NCAM2	missense	NM_004540:p.W413C
16461	21	33805610	33805610	C	A	C	M	exonic	GART	missense	NM_000819:p.R711S
16461	21	33848274	33848274	G	T	G	K	exonic	SON	missense	NM_138927:p.V1623F
16461	21	36542725	36542725	A	T	A	W	exonic	DOPEY2	nonsense	NM_005128:p.K1663X
16461	21	37361501	37361501	C	T	C	Y	exonic	PIGP	missense	NM_153681:p.G93S
16461	21	39756230	39756230	G	T	G	K	exonic	SH3BGR	missense	NM_007341:p.K98N
16461	22	15452024	15452024	C	T	C	Y	exonic	CCT8L2	missense	NM_014406:p.G473S
16461	22	15668864	15668864	G	T	G	K	exonic	XKR3	missense	NM_175878:p.P34T
16461	22	20644762	20644762	C	A	C	M	exonic	TOP3B	missense	NM_003935:p.V529L
16461	22	22789466	22789466	G	T	G	K	exonic	CABIN1	nonsense	NM_001201429:p.G531X
16461	22	30053135	30053135	C	A	C	M	exonic	PATZ1	missense	NM_032050:p.E556D
16461	22	35601683	35601683	G	A	G	R	exonic	NCF4	missense	NM_000631:p.V224M
16461	22	38240008	38240008	G	T	G	K	exonic	SMCR7L	missense	NM_019008:p.A376S
16461	22	40303327	40303327	G	C	G	S	exonic	PMM1	missense	NM_002676:p.Q244E
16461	22	42396122	42396122	G	C	G	S	exonic	EFCAB6	missense	NM_198856:p.Q441E
16461	X	13664642	13664642	C	T	C	Y	exonic	OFD1	missense	NM_003611:p.A79V
16461	X	27908371	27908371	T	A	T	W	exonic	DCAF8L1	missense	NM_001017930:p.K334N
16461	X	36938425	36938425	G	C	G	S	exonic	FAM47C	missense	NM_001013736:p.G674A
16461	X	48342977	48342977	G	T	G	K	exonic	WDR13	missense	NM_017883:p.D151Y
16461	X	48710599	48710599	T	A	T	W	exonic	KCND1	missense	NM_004979:p.T342S
16461	X	50356485	50356485	G	T	G	K	exonic	SHROOM4	missense	NM_020717:p.Q1478K
16461	X	77799705	77799705	C	A	C	M	exonic	ZCCHC5	missense	NM_152694:p.W290L
16461	X	77799712	77799712	C	A	C	M	exonic	ZCCHC5	nonsense	NM_152694:p.G288X
16461	X	91020657	91020657	G	T	G	K	exonic	PCDH11X	missense	NM_032969:p.W921L
16461	X	106218548	106218548	G	A	G	R	exonic	RBM41	missense	NM_018301:p.S234L
16461	X	118655087	118655087	T	A	T	W	exonic	41158	missense	NM_015129:p.E296V
16461	X	125513264	125513264	C	T	C	Y	exonic	DCAF12L1	missense	NM_178470:p.D337N
16617	1	41821668	41821668	T	G	T	K	exonic	HIVEP3	missense	NM_001127714:p.E463A

16617	1	47173858	47173858	G	A	G	R	exonic	CYP4A11	nonsense	NM_000778:p.Q187X
16617	1	100406606	100406606	C	T	C	Y	exonic	LRRC39	missense	NM_144620:p.E19K
16617	1	103236488	103236488	C	A	C	M	exonic	COL11A1	missense	NM_001854:p.G721V
16617	1	156565858	156565858	T	A	T	W	exonic	CD1B	missense	NM_001764:p.D271V
16617	1	156881950	156881950	C	T	C	Y	exonic	SPTA1	missense	NM_003126:p.E1319K
16617	1	195337089	195337089	T	A	T	W	exonic	ASPM	nonsense	NM_018136:p.K2639X
16617	2	11307258	11307258	T	C	T	Y	exonic	ROCK2	missense	NM_004850:p.N148D
16617	2	27276840	27276840	A	C	A	M	exonic	SLC5A6	missense	NM_021095:p.S626A
16617	2	48439760	48439760	A	T	A	W	exonic	FOXN2	missense	NM_002158:p.K203M
16617	2	85835517	85835517	A	G	A	R	exonic	ATOX1B	missense	NM_032827:p.R232G
16617	2	91434890	91434890	T	G	T	K	intergenic	NA	NA	NA
16617	2	100947066	100947066	T	A	T	W	exonic	NPAS2	nonsense	NM_002518:p.L238X
16617	2	131131028	131131028	G	A	G	R	intergenic	NA	NA	NA
16617	2	136105909	136105909	G	C	G	S	exonic	R3HDM1	missense	NM_015361:p.R189P
16617	2	144873038	144873038	G	C	G	S	exonic	ZEB2	missense	NM_014795:p.P729R
16617	2	211164895	211164895	G	T	G	K	exonic	CPS1	missense	NM_001122633:p.G354V
16617	3	99334527	99334527	T	C	T	Y	exonic	OR5H1	missense	NM_001005338:p.I99T
16617	3	102446147	102446147	G	A	G	R	exonic	IMPG2	missense	NM_016247:p.T573I
16617	3	140148040	140148055	TCGGC	-	C	*-/	exonic	FOXL2	FS_del	NM_023067:p.67_72del
16617	3	168665965	168665965	T	A	T	W	exonic	SERPINI2	missense	NM_006217:p.K223N
16617	4	163174261	163174261	C	A	C	M	splicing	FSTL5	NA	NA
16617	5	10455101	10455119	TAATA	-	T	*-/	intronic	40974	NA	NA
16617	5	36147118	36147118	C	A	C	M	splicing	LMBRD2	NA	NA
16617	6	30274486	30274486	C	A	C	M	exonic	TRIM26	missense	NM_003449:p.R125L
16617	6	31791140	31791140	T	C	T	Y	exonic	LY6G6D	missense	NM_021246:p.L10P
16617	6	88051226	88051226	G	C	G	S	exonic	GJB7	missense	NM_198568:p.H42D
16617	6	108325572	108325572	C	T	C	Y	exonic	SEC63	missense	NM_007214:p.V472I
16617	6	155195790	155195790	C	T	C	Y	exonic	SCAF8	nonsense	NM_014892:p.R1129X
16617	7	72735092	72735092	C	G	C	S	exonic	DNAJC30	missense	NM_032317:p.G200R
16617	7	81473027	81473027	G	A	G	R	exonic	CACNA2D1	missense	NM_000722:p.P502L
16617	7	93876622	93876622	G	T	G	K	exonic	COL1A2	missense	NM_000089:p.R282L
16617	7	106297104	106297104	C	A	C	M	exonic	PIK3CG	missense	NM_002649:p.A621D
16617	8	108403416	108403416	T	C	T	Y	exonic	ANGPT1	missense	NM_001199859:p.Q231R
16617	9	13112126	13112126	C	A	C	M	exonic	MPDZ	missense	NM_003829:p.C1666F
16617	9	85448342	85448342	A	T	A	W	exonic	C9orf103	missense	NM_001001551:p.I131F
16617	9	89687793	89687793	G	T	G	K	exonic	C9orf79	missense	NM_178828:p.W56L
16617	9	127737658	127737658	A	T	A	W	exonic	PBX3	missense	NM_001134778:p.E190V
16617	10	49056122	49056122	C	T	C	Y	exonic	FRMPD2	missense	NM_001018071:p.D957N
16617	10	59824794	59824794	G	T	G	K	exonic	TFAM	missense	NM_003201:p.R232L
16617	10	68649635	68649635	C	A	C	M	splicing	CTNNA3	NA	NA
16617	10	127833864	127833864	T	A	T	W	splicing	ADAM12	missense	NM_021641:p.E87D
16617	11	5419293	5419293	G	T	G	K	exonic	OR511	missense	NM_001005288:p.Q10K
16617	11	56267559	56267559	G	A	G	R	exonic	OR9G4	missense	NM_001005284:p.S102L
16617	11	123316376	123316376	G	C	G	S	exonic	OR4D5	missense	NM_001001965:p.M281I
16617	12	101812828	101812828	T	-	C	*-/T	splicing	PAH	NA	NA
16617	12	102646776	102646776	A	C	A	M	exonic	STAB2	missense	NM_017564:p.Y1652S
16617	13	25002190	25002190	T	A	T	W	exonic	ATP8A2	missense	NM_016529:p.I92N
16617	13	52522488	52522488	C	G	C	S	exonic	OLFM4	missense	NM_006418:p.R372G
16617	13	91143517	91143517	C	-	G	*-/C	exonic	GPC5	FS_del	NM_004466:p.A134fs
16617	14	46635968	46635968	G	T	G	K	exonic	MDGA2	missense	NM_001113498:p.T345N
16617	14	93122988	93122988	G	T	G	K	exonic	KIAA1409	missense	NM_020818:p.D828Y
16617	15	43510258	43510258	A	G	A	R	splicing	C15orf48	NA	NA
16617	15	46542699	46542699	T	A	T	W	exonic	FBN1	missense	NM_000138:p.Y1699F
16617	16	2290070	2290070	G	T	G	K	exonic	ABCA3	missense	NM_001089:p.N516K
16617	16	60318560	60318560	T	A	T	W	exonic	CDH8	missense	NM_001796:p.N492I
16617	16	88363855	88363855	G	C	G	S	exonic	FANCA	missense	NM_000135:p.P799A
16617	17	5300126	5300126	T	C	T	Y	exonic	DHX33	missense	NM_020162:p.D317G
16617	17	10381529	10381529	T	A	T	W	exonic	MYH2	missense	NM_017534:p.D548V
16617	17	16796599	16796599	C	T	C	Y	exonic	TNFRSF13B	missense	NM_012452:p.V29M
16617	17	36111661	36111661	A	C	A	M	exonic	KRT24	missense	NM_019016:p.N222K
16617	17	59129741	59129741	A	C	A	M	exonic	LIMD2	missense	NM_030576:p.F96C
16617	19	14134628	14134628	C	T	C	Y	exonic	LPHN1	missense	NM_014921:p.D329N
16617	19	22155590	22155590	C	A	C	M	exonic	ZNF676	nonsense	NM_001001411:p.E257X
16617	19	40710834	40710834	C	A	C	M	exonic	SBSN	nonsense	NM_198538:p.E64X
16617	19	40710835	40710835	C	A	C	M	exonic	SBSN	missense	NM_198538:p.R63S
16617	20	50202217	50202217	C	A	C	M	exonic	ZFP64	missense	NM_018197:p.A641S
16617	21	42284900	42284900	G	A	G	R	exonic	ZNF295	missense	NM_001098403:p.R591W
16617	22	40937196	40937196	C	G	C	S	exonic	TCF20	missense	NM_005650:p.A1354P
16617	X	3250170	3250170	G	C	G	S	exonic	MXRA5	missense	NM_015419:p.Q1186E
16617	X	21779645	21779645	C	T	C	Y	exonic	MBTPS2	missense	NM_015884:p.A179V
16617	X	77175949	77175949	C	-	T	*-/C	exonic	ATP7A	FS_del	NM_000052:p.S1162fs
16617	X	78102884	78102884	A	G	A	R	exonic	P2RY10	missense	NM_014499:p.I71V
16617	X	138684608	138684608	C	A	C	M	exonic	ATP11C	missense	NM_173694:p.S711I
16617	M	12773	12773	G	A	G	R	intergenic	NA	NA	NA
16989	1	27748721	27748721	C	A	C	M	exonic	AHDC1	missense	NM_001029882:p.E831D
16989	1	151579523	151579523	G	A	G	R	exonic	PGLYRP4	missense	NM_020393:p.S261F
16989	1	173371663	173371663	G	-	T	*-/G	exonic	TNN	FS_del	NM_022093:p.V1130fs
16989	1	195185291	195185291	G	A	G	R	exonic	CFHR2	missense	NM_005666:p.G48R
16989	1	199236532	199236532	C	A	C	M	splicing	KIF21B	NA	NA

16989	1	245655305	245655305	C	A	C	M	exonic	NLRP3	missense	NM_001079821:p.A646D
16989	2	25323041	25323041	G	-	A	*/-G	exonic	DNMT3A	FS_del	NM_022552:p.L411fs
16989	2	48661753	48661753	G	T	G	K	exonic	STON1	missense	NM_006873:p.Q159H
16989	2	80383448	80383448	G	T	G	K	exonic	LRRTM1	nonsense	NM_178839:p.Y336X
16989	3	123485778	123485778	A	T	A	W	exonic	CASR	missense	NM_001178065:p.I773F
16989	5	50719207	50719207	C	G	C	S	exonic	ISL1	missense	NM_002202:p.I115M
16989	5	168133912	168133912	C	T	C	Y	exonic	SLIT3	missense	NM_003062:p.D401N
16989	7	27101485	27101485	C	A	C	M	exonic	HOXA1	missense	NM_005522:p.C191F
16989	11	15203920	15203920	G	T	G	K	exonic	INSC	missense	NM_001031853:p.Q427H
16989	11	47776498	47776498	G	C	G	S	exonic	NUP160	missense	NM_015231:p.Q997E
16989	12	56252143	56252143	G	T	G	K	exonic	KIF5A	missense	NM_004984:p.K465N
16989	13	29680852	29680852	C	A	C	M	exonic	KATNAL1	missense	NM_032116:p.R433I
16989	14	94975763	94975763	C	T	C	Y	exonic	C14orf49	missense	NM_152592:p.E729K
16989	15	63410495	63410495	G	T	G	K	exonic	IGDCC3	missense	NM_004884:p.P503T
16989	15	72213278	72213278	C	A	C	M	exonic	ISLR2	missense	NM_001130137:p.P377H
16989	15	72254464	72254464	G	T	G	K	exonic	ISLR	missense	NM_005545:p.R71M
16989	15	72254465	72254465	G	T	G	K	exonic	ISLR	missense	NM_005545:p.R71S
16989	16	20236199	20236199	C	G	C	S	splicing	GP2	NA	NA
16989	16	56611586	56611586	G	T	G	K	exonic	C16orf57	missense	NM_001195302:p.R227L
16989	17	35135509	35135509	A	T	A	W	exonic	ERBB2	missense	NM_004448:p.T917S
16989	17	70355600	70355600	A	T	A	W	exonic	GRIN2C	missense	NM_000835:p.L586H
16989	18	27189035	27189035	G	T	G	K	exonic	DSG1	missense	NM_001942:p.G960C
16989	19	36459745	36459745	G	C	G	S	exonic	TSHZ3	missense	NM_020856:p.R932G
16989	19	63270950	63270950	G	A	G	R	exonic	ZNF135	missense	NM_007134:p.R453Q
16989	20	30268176	30268176	G	T	G	K	exonic	POFUT1	missense	NM_015352:p.W178L
16989	20	35097179	35097179	C	A	C	M	exonic	RBL1	missense	NM_183404:p.A684S
16989	X	84249320	84249320	C	G	C	S	exonic	SATL1	missense	NM_001012980:p.W437C
16989	X	101025754	101025754	C	A	C	M	exonic	ZMAT1	missense	NM_001011657:p.R434I
16989	X	116917258	116917258	G	A	G	R	exonic	KLHL13	missense	NM_033495:p.L537F
16989	M	3516	3516	T	C	T	Y	intergenic	NA	NA	NA
17273	14	18184517	18184517	T	C	T	Y	intergenic	NA	NA	NA
18472	1	11225925	11225925	A	T	A	W	exonic	MTOR	missense	NM_004958:p.D415E
18472	1	207865871	207865871	C	T	C	Y	exonic	LAMB3	missense	NM_000228:p.R574H
18472	1	239818721	239818721	C	T	C	Y	exonic	KMO	missense	NM_003679:p.A355V
18472	2	157992155	157992155	A	G	A	R	exonic	CYTIP	missense	NM_004288:p.M167T
18472	2	201839759	201839759	G	T	G	K	splicing	CASP8	missense	NM_001080124:p.R102M
18472	2	206732976	206732976	G	A	G	R	exonic	EEF1B2	missense	NM_001959:p.A10T
18472	2	220201467	220201467	C	A	C	M	exonic	SLC4A3	missense	NM_201574:p.L50I
18472	3	139665944	139665944	G	A	G	R	exonic	ESYT3	missense	NM_031913:p.R328Q
18472	3	198142180	198142180	C	T	C	Y	exonic	SENP5	missense	NM_152699:p.L753F
18472	4	75703705	75703705	G	A	G	R	exonic	AREG	missense	NM_001657:p.G157R
18472	4	124032931	124032931	A	G	A	R	exonic	FGF2	missense	NM_002006:p.Y266C
18472	5	148978715	148978715	G	A	G	R	exonic	ARHGEF37	missense	NM_001001669:p.D271N
18472	6	29697940	29697940	G	A	G	R	exonic	GABBR1	nonsense	NM_001470:p.R329X
18472	6	33396721	33396721	C	T	C	Y	exonic	DAXX	missense	NM_001141969:p.R270H
18472	7	149617558	149617558	T	C	T	Y	exonic	ACTR3C	missense	NM_001164458:p.I71V
18472	8	145062820	145062820	C	T	C	Y	exonic	PLEC	missense	NM_201384:p.R4386H
18472	9	115970958	115970958	G	C	G	S	exonic	COL27A1	missense	NM_032888:p.R434S
18472	9	133759164	133759164	T	C	T	Y	exonic	MED27	missense	NM_004269:p.M204V
18472	10	26546545	26546545	C	T	C	Y	splicing	GAD2	missense	NM_001134366:p.A26V
18472	10	27548715	27548715	C	G	C	S	exonic	ACBD5	missense	NM_145698:p.E190Q
18472	10	95316832	95316832	G	A	G	R	exonic	GPR120	missense	NM_001195755:p.G122D
18472	10	115354659	115354659	C	T	C	Y	exonic	NRAP	missense	NM_006175:p.R1274K
18472	11	6200327	6200327	A	G	A	R	exonic	FAM160A2	missense	NM_032127:p.L371P
18472	11	9726045	9726045	G	A	G	R	exonic	SWAP70	missense	NM_015055:p.A474T
18472	11	128286493	128286493	C	T	C	Y	exonic	KCNJ5	missense	NM_000890:p.R39C
18472	12	537121	537121	G	A	G	R	exonic	B4GALNT3	missense	NM_173593:p.V823I
18472	12	52001409	52001409	G	-	C	*/-G	exonic	AAAS	FS_del	NM_015665:p.P36fs
18472	14	22896379	22896379	C	A	C	M	exonic	EF5	missense	NM_032459:p.G435C
18472	14	35193410	35193410	C	T	C	Y	exonic	RALGAPA1	missense	NM_194301:p.V1335I
18472	14	51575302	51575302	G	T	G	K	exonic	NID2	missense	NM_007361:p.L724M
18472	14	64475994	64475994	G	A	G	R	exonic	GPX2	missense	NM_002083:p.P180S
18472	16	30997347	30997347	C	T	C	Y	exonic	ZNF646	missense	NM_014699:p.S734F
18472	16	84512357	84512357	T	-	A	*/-T	exonic	IRF8	FS_del	NM_002163:p.F417fs
18472	17	2516097	2516097	A	-	G	*/-A	exonic	PAFAH1B1	FS_del	NM_000430:p.E52fs
18472	17	6439098	6439098	C	T	C	Y	splicing	KIAA0753	NA	NA
18472	17	7163125	7163125	G	A	G	R	exonic	NEURL4	missense	NM_001005408:p.R1216W
18472	17	46452553	46452553	T	C	T	Y	exonic	SPAG9	missense	NM_001130528:p.M353V
18472	18	27947722	27947722	T	C	T	Y	exonic	RNF138	missense	NM_001191324:p.M135T
18472	19	1341996	1341996	G	A	G	R	exonic	NDUF57	missense	NM_024407:p.V119I
18472	19	10966645	10966645	C	T	C	Y	exonic	SMARCA4	missense	NM_001128845:p.R521W
18472	19	13087558	13087558	G	A	G	R	exonic	TRMT1	missense	NM_001142554:p.T112M
18472	19	14439427	14439427	G	T	G	K	exonic	PKN1	missense	NM_002741:p.Q594H
18472	19	61135459	61135459	C	A	C	M	exonic	NLRP13	missense	NM_176810:p.G11C
18472	X	53619386	53619386	T	C	T	Y	exonic	HUWE1	missense	NM_031407:p.Y1991C
18472	X	70741089	70741089	A	G	A	R	exonic	ACRC	missense	NM_052957:p.R413G
18472	X	152607446	152607446	G	A	G	R	exonic	SLC6A8	missense	NM_001142805:p.V75M
18472	X	152840026	152840026	G	A	G	R	exonic	ARHGAP4	missense	NM_001666:p.R141C
7285	1	1257126	1257126	C	G	C	S	exonic	TAS1R3	missense	NM_152228:p.S146W

7285	1	115321750	115321750	A	G	A	R	exonic	SYCP1	missense	NM_003176:p.K791R
7285	1	152584147	152584147	G	T	G	K	exonic	ATP8B2	missense	NM_020452:p.R821L
7285	1	153849470	153849470	A	G	A	R	exonic	MSTO1	missense	NM_018116:p.T369A
7285	1	156847745	156847745	G	T	G	K	exonic	SPTA1	missense	NM_003126:p.P2398Q
7285	1	173571519	173571519	C	A	C	M	exonic	TNR	missense	NM_003285:p.W1194C
7285	1	184591427	184591427	G	C	G	S	exonic	TPR	nonsense	NM_003292:p.S662X
7285	1	198356676	198356676	T	C	T	Y	exonic	NR5A2	missense	NM_003822:p.C404R
7285	1	206300678	206300678	G	T	G	K	exonic	PLXNA2	missense	NM_025179:p.P905Q
7285	1	213842125	213842125	A	T	A	W	exonic	KCTD3	missense	NM_016121:p.D366V
7285	1	213914947	213914947	C	A	C	M	exonic	USH2A	missense	NM_206933:p.S4310I
7285	1	220986569	220986569	C	A	C	M	exonic	FAM177B	missense	NM_207468:p.T20N
7285	1	226313475	226313475	T	C	T	Y	exonic	WNT3A	missense	NM_033131:p.S249P
7285	1	227840348	227840348	C	A	C	M	exonic	URB2	missense	NM_014777:p.T1122K
7285	1	244877522	244877522	G	T	G	K	exonic	CNST	missense	NM_152609:p.D466Y
7285	1	246044826	246044826	T	C	T	Y	exonic	OR14A16	missense	NM_001001966:p.M277V
7285	1	246071059	246071059	T	C	T	Y	exonic	OR11L1	missense	NM_001001959:p.M255V
7285	1	246125938	246125938	G	T	G	K	exonic	OR2W3	missense	NM_001001957:p.G143C
7285	1	246503675	246503675	T	C	T	Y	exonic	OR2T33	missense	NM_001004695:p.H22R
7285	1	246752295	246752295	C	A	C	M	exonic	OR2G6	nonsense	NM_001013355:p.S242X
7285	2	26558817	26558817	A	C	A	M	exonic	OTOF	missense	NM_194248:p.F514V
7285	2	40509715	40509715	C	T	C	Y	exonic	SLC8A1	missense	NM_021097:p.D404N
7285	2	71631721	71631721	A	G	A	R	exonic	DYSF	missense	NM_001130979:p.Y553C
7285	2	74444039	74444039	C	G	C	S	exonic	DCTN1	missense	NM_001135040:p.G1054R
7285	2	127897139	127897139	C	A	C	M	exonic	PROC	missense	NM_000312:p.H108N
7285	3	5224805	5224805	A	G	A	R	exonic	EDEM1	missense	NM_014674:p.I456V
7285	3	35745939	35745939	C	T	C	Y	exonic	ARPP21	nonsense	NM_016300:p.Q456X
7285	3	44907098	44907098	G	C	G	S	splicing	TGM4	NA	NA
7285	3	52833007	52833007	G	-	C	*/-G	exonic	ITIH4	FS_del	NM_001166449:p.R409fs
7285	3	57257392	57257392	G	T	G	K	exonic	APPL1	missense	NM_012096:p.R279L
7285	3	98189297	98189297	G	C	G	S	exonic	EPHA6	missense	NM_001080448:p.R295P
7285	3	99699598	99699598	C	A	C	M	exonic	OR5K2	missense	NM_001004737:p.N128K
7285	3	102430979	102430979	C	A	C	M	exonic	IMPG2	missense	NM_016247:p.V1190L
7285	3	109845994	109845994	G	A	G	R	exonic	DZIP3	missense	NM_014648:p.V479M
7285	3	114667252	114667252	C	G	C	S	exonic	SPICE1	missense	NM_144718:p.E409Q
7285	3	120615951	120615951	G	C	G	S	exonic	ARHGAP31	missense	NM_020754:p.E829Q
7285	3	120908398	120908398	A	T	A	W	exonic	C3orf15	missense	NM_033364:p.Q59H
7285	3	121386907	121386907	T	G	T	K	exonic	GPR156	missense	NM_153002:p.T209P
7285	3	148603203	148603203	A	T	A	W	splicing	ZIC4	NA	NA
7285	3	149942333	149942333	G	A	G	R	exonic	AGTR1	missense	NM_009585:p.C274Y
7285	3	171040658	171040658	T	C	T	Y	exonic	LRRC31	missense	NM_024727:p.S489G
7285	3	184974166	184974166	T	G	T	K	exonic	YEATS2	missense	NM_018023:p.L753W
7285	3	188053608	188053608	C	G	C	S	exonic	ADIPOQ	missense	NM_004797:p.Q23E
7285	4	46625351	46625351	C	A	C	M	exonic	GABRA4	missense	NM_000809:p.R438L
7285	4	85845613	85845613	C	T	C	Y	exonic	WDFY3	missense	NM_014991:p.A2765T
7285	4	102166197	102166197	C	A	C	M	exonic	PPP3CA	nonsense	NM_001130692:p.E420X
7285	4	134290881	134290881	A	T	A	W	exonic	PCDH10	missense	NM_032961:p.T465
7285	4	164612943	164612943	G	T	G	K	exonic	TKTL2	missense	NM_032136:p.A465D
7285	4	176134650	176134650	T	C	T	Y	exonic	ADAM29	missense	NM_014269:p.W467R
7285	4	190631357	190631357	C	A	C	M	ncRNA	HSP90AA4P	NA	NA
7285	5	38517785	38517785	T	A	T	W	exonic	LIFR	missense	NM_002310:p.E988V
7285	5	128824050	128824050	T	A	T	W	exonic	ADAMTS19	missense	NM_133638:p.F17I
7285	5	129058349	129058349	G	A	G	R	exonic	ADAMTS19	missense	NM_133638:p.M946I
7285	5	140201589	140201589	G	A	G	R	exonic	PCDH8	missense	NM_018911:p.V167M
7285	5	140548473	140548473	C	A	C	M	exonic	PCDH9	missense	NM_019119:p.P466Q
7285	6	24775526	24775526	G	T	G	K	exonic	ACOT13	missense	NM_018473:p.R19L
7285	6	28647915	28647915	C	A	C	M	exonic	SCAND3	missense	NM_052923:p.A1244S
7285	6	28979947	28979947	A	C	A	M	exonic	TRIM27	missense	NM_006510:p.F474C
7285	6	29493875	29493875	C	A	C	M	intergenic	NA	NA	NA
7285	6	32038804	32038804	A	T	A	W	exonic	SKIV2L	missense	NM_006929:p.S454C
7285	6	40467809	40467809	C	A	C	M	exonic	LRFN2	missense	NM_020737:p.G741C
7285	6	46982442	46982442	C	A	C	M	exonic	GPR116	missense	NM_015234:p.R6I
7285	6	50045267	50045267	C	A	C	M	exonic	DEFB113	missense	NM_001037729:p.V11F
7285	6	56612497	56612497	C	A	C	M	exonic	DST	missense	NM_001723:p.A348S
7285	6	69760513	69760513	C	A	C	M	exonic	BAI3	missense	NM_001704:p.L623M
7285	6	78229710	78229710	T	C	T	Y	exonic	HTR1B	missense	NM_000863:p.I44V
7285	6	90482175	90482175	C	T	C	Y	exonic	MDN1	missense	NM_014611:p.E2260K
7285	6	97783521	97783521	C	T	C	Y	exonic	MMS22L	missense	NM_198468:p.S670N
7285	6	116865076	116865076	A	G	A	R	exonic	DSE	missense	NM_001080976:p.M918V
7285	6	167512028	167512028	C	T	C	Y	intronic	TCP10L2	NA	NA
7285	6	167648917	167648917	A	-	C	*/-A	exonic	UNC93A	FS_del	NM_018974:p.Q454fs
7285	7	71880437	71880437	T	A	T	W	exonic	TYW1B	missense	NM_001145440:p.N297I
7285	7	73306608	73306608	C	A	C	M	exonic	RFC2	missense	NM_002914:p.E14D
7285	7	81552033	81552033	G	A	G	R	exonic	CACNA2D1	nonsense	NM_000722:p.R216X
7285	7	86392909	86392909	C	T	C	Y	splicing	KIAA1324L	NA	NA
7285	7	94857442	94857442	T	C	T	Y	exonic	PON3	missense	NM_000940:p.D54G
7285	7	106549671	106549671	G	C	G	S	exonic	PRKAR2B	missense	NM_002736:p.D128H
7285	7	120752769	120752769	T	C	T	Y	splicing	WNT16	missense	NM_016087:p.W22R
7285	7	124290699	124290699	C	T	C	Y	exonic	POT1	missense	NM_015450:p.D163N
7285	7	128274177	128274177	G	A	G	R	exonic	FLNC	missense	NM_001127487:p.G1424R

7285	7	133230916	133230916	G	T	G	K	exonic	EXOC4	missense	NM_021807:p.V587F
7285	7	135056760	135056760	C	A	C	M	exonic	SLC13A4	nonsense	NM_012450:p.E51X
7285	8	39746172	39746172	A	T	A	W	exonic	ADAM2	missense	NM_001464:p.C370S
7285	8	69184231	69184231	C	G	C	S	exonic	PREX2	missense	NM_024870:p.Q989E
7285	8	69193377	69193377	C	A	C	M	exonic	PREX2	missense	NM_024870:p.T1122N
7285	8	75920032	75920032	G	A	G	R	exonic	PI15	missense	NM_015886:p.M169I
7285	8	82769362	82769362	T	A	T	W	exonic	SLC10A5	missense	NM_001010893:p.Q134L
7285	8	82769363	82769363	G	A	G	R	exonic	SLC10A5	nonsense	NM_001010893:p.Q134X
7285	8	87299119	87299119	G	A	G	R	exonic	SLC7A13	missense	NM_138817:p.P292L
7285	8	88954438	88954438	G	C	G	S	exonic	DCAF4L2	missense	NM_152418:p.T293S
7285	8	91051915	91051915	C	A	C	M	exonic	NBN	missense	NM_002485:p.R250M
7285	8	95333446	95333446	C	A	C	M	exonic	GBM	missense	NM_005261:p.R197L
7285	8	101089956	101089956	G	T	G	K	exonic	RG522	nonsense	NM_015668:p.Y728X
7285	8	105525652	105525652	C	A	C	M	splicing	DPYS	missense	NM_001385:p.G265W
7285	8	109039549	109039549	G	T	G	K	exonic	RSPO2	missense	NM_178565:p.T184K
7285	8	113336833	113336833	C	T	C	Y	splicing	CSMD3	NA	NA
7285	8	113383314	113383314	G	C	G	S	exonic	CSMD3	missense	NM_052900:p.T2606S
7285	8	113747682	113747682	C	G	C	S	splicing	CSMD3	missense	NM_052900:p.R835T
7285	8	121308742	121308742	A	T	A	W	exonic	COL14A1	missense	NM_021110:p.S703C
7285	8	121362376	121362376	A	G	A	R	exonic	COL14A1	missense	NM_021110:p.K1241E
7285	8	139220475	139220475	C	A	C	M	exonic	FAM135B	missense	NM_015912:p.Q1279H
7285	9	3888663	3888663	T	A	T	W	ncRNA	C9orf70	NA	NA
7285	9	27195004	27195025	ATATT	-	C	*/-	exonic	TEK	FS_del	NM_000459:p.769_776del
7285	9	32620237	32620237	C	T	C	Y	exonic	TAF1L	missense	NM_153809:p.E1781K
7285	9	36664928	36664928	A	G	A	R	exonic	MELK	missense	NM_014791:p.Q591R
7285	9	73539568	73539568	C	T	C	Y	exonic	TMEM2	missense	NM_013390:p.C456Y
7285	9	79145215	79145215	A	C	A	M	exonic	VPS13A	missense	NM_033305:p.N2319H
7285	9	121015993	121015993	A	T	A	W	intronic	DBC1	NA	NA
7285	9	122926127	122926127	C	G	C	S	exonic	CEP110	missense	NM_007018:p.S583C
7285	9	134885346	134885346	G	T	G	K	intergenic	NA	NA	NA
7285	9	138998989	138998989	T	C	T	Y	exonic	LCNL1	missense	NM_207510:p.M67T
7285	10	83461	83461	G	C	G	S	exonic	TUBB8	missense	NM_001164154:p.Q219E
7285	10	26829991	26829991	C	A	C	M	exonic	APBB1IP	missense	NM_019043:p.A133D
7285	10	29011068	29011068	C	T	C	Y	exonic	BAMBI	missense	NM_012342:p.A172V
7285	10	38383809	38383809	G	A	G	R	exonic	ZNF33A	missense	NM_006974:p.E250K
7285	10	42930047	42930047	C	T	C	Y	exonic	RET	missense	NM_020975:p.H665Y
7285	10	55625528	55625528	G	T	G	K	exonic	PCDH15	missense	NM_001142766:p.P409Q
7285	10	60232938	60232938	G	A	G	R	exonic	BICC1	missense	NM_001080512:p.R704K
7285	10	68196044	68196044	G	T	G	K	exonic	CTNNA3	missense	NM_001127384:p.T422N
7285	10	72170810	72170810	G	T	G	K	exonic	ADAMTS14	nonsense	NM_080722:p.E604X
7285	10	118414265	118414265	T	A	T	W	exonic	C10orf82	missense	NM_144661:p.E153V
7285	10	124047284	124047286	TGA	-	G	*/-TGA	exonic	BTBD16	nonFS_del	NM_144587:p.201_202del
7285	11	4826314	4826314	C	T	C	Y	exonic	OR511	missense	NM_001004758:p.G234D
7285	11	5485576	5485576	G	A	G	R	exonic	UBQLN3	missense	NM_017481:p.H597Y
7285	11	5523043	5523043	C	G	C	S	exonic	OR52H1	missense	NM_001005289:p.G96A
7285	11	5587985	5587985	C	A	C	M	exonic	TRIM6	missense	NM_001003819:p.L298I
7285	11	5835396	5835396	A	G	A	R	exonic	OR52E8	missense	NM_001005168:p.F38S
7285	11	20472303	20472303	G	-	C	*/-G	exonic	PRMT3	FS_del	NM_001145166:p.T409fs
7285	11	28091661	28091661	G	C	G	S	exonic	METT5D1	missense	NM_001113528:p.M68I
7285	11	29990188	29990188	G	C	G	S	exonic	KCNA4	missense	NM_002233:p.P205R
7285	11	55079104	55079104	G	T	G	K	exonic	OR4C15	missense	NM_001001920:p.G249V
7285	11	55409699	55409699	G	T	G	K	exonic	SPRYD5	missense	NM_032681:p.M73I
7285	11	55438329	55438329	C	A	C	M	exonic	OR5W2	missense	NM_001001960:p.L102F
7285	11	55684185	55684185	G	C	G	S	exonic	OR8K5	missense	NM_001004058:p.S62C
7285	11	64320402	64320402	C	T	C	Y	exonic	MAP4K2	missense	NM_004579:p.G557D
7285	11	85113401	85113401	T	C	T	Y	exonic	SYTL2	missense	NM_206928:p.T583A
7285	11	120506029	120506029	G	A	G	R	exonic	TECTA	missense	NM_005422:p.G947E
7285	11	123405810	123405810	A	G	A	R	exonic	OR10G8	missense	NM_001004464:p.I91V
7285	12	1983837	1983837	C	T	C	Y	exonic	DCP1B	missense	NM_152640:p.G8S
7285	12	6334849	6334849	C	A	C	M	exonic	SCNN1A	missense	NM_001159576:p.M390I
7285	12	6334850	6334850	A	T	A	W	exonic	SCNN1A	missense	NM_001159576:p.M390K
7285	12	7872686	7872686	G	T	G	K	exonic	SLC2A14	missense	NM_153449:p.P209Q
7285	12	46820797	46820797	T	A	T	W	exonic	PFKM	missense	NM_000289:p.M406K
7285	12	47646379	47646379	C	A	C	M	exonic	WNT10B	missense	NM_003394:p.E312D
7285	12	48787646	48787646	T	A	T	W	exonic	GPDI	nonsense	NM_005276:p.C214X
7285	12	53810354	53810354	A	G	A	R	exonic	OR9K2	missense	NM_001005243:p.I179V
7285	12	71333185	71333185	G	T	G	K	exonic	TRHDE	missense	NM_013381:p.W944L
7285	12	79626056	79626056	C	T	C	Y	exonic	MYF6	missense	NM_002469:p.R143W
7285	12	89871754	89871754	C	A	C	M	exonic	C12orf12	missense	NM_152638:p.E299D
7285	12	94797563	94797563	G	A	G	R	exonic	CCDC38	nonsense	NM_182496:p.Q378X
7285	13	31643360	31643360	A	G	A	R	exonic	FRY	missense	NM_023037:p.T702A
7285	13	77090195	77090195	C	T	C	Y	splicing	SCEL	nonsense	NM_003843:p.R523X
7285	13	112820965	112820965	T	C	T	Y	exonic	F7	missense	NM_000131:p.L348P
7285	14	18184541	18184541	G	A	G	R	intergenic	NA	NA	NA
7285	14	73106248	73106248	A	T	A	W	exonic	ACOT2	missense	NM_006821:p.Q184L
7285	14	93664020	93664020	C	-	G	*/-C	exonic	IFI27L2	FS_del	NM_032036:p.A88fs
7285	14	96412126	96412126	A	G	A	R	exonic	VRK1	missense	NM_003384:p.K359E
7285	15	19915231	19915231	A	T	A	W	ncRNA	OR4N3P	NA	NA
7285	15	20418998	20418998	A	T	A	W	exonic	TUBGCP5	missense	NM_052903:p.Q878L



7285	15	26129882	26129882	T	A	T	W	exonic	HERC2	missense	NM_004667:p.Q2310H
7285	15	27154497	27154497	G	A	G	R	splicing	APBA2	NA	NA
7285	15	39647727	39647727	A	G	A	R	exonic	TYRO3	missense	NM_006293:p.N328D
7285	15	40243156	40243156	T	C	T	Y	exonic	VPS39	missense	NM_015289:p.I697V
7285	15	43484858	43484858	G	C	G	S	exonic	SPATA5L1	missense	NM_024063:p.V380L
7285	15	46835974	46835974	T	C	T	Y	exonic	CEP152	missense	NM_014985:p.I921M
7285	15	66791007	66791007	A	T	A	W	exonic	CORO2B	missense	NM_001190457:p.M181L
7285	15	84112403	84112403	C	G	C	S	exonic	KLHL25	missense	NM_022480:p.G548A
7285	15	88785849	88785849	C	G	C	S	exonic	IQGAP1	missense	NM_003870:p.P253A
7285	15	90774346	90774346	G	T	G	K	splicing	ST8SIA2	NA	NA
7285	16	3004012	3004012	C	A	C	M	exonic	CLDN9	nonsense	NM_020982:p.Y216X
7285	16	9765091	9765091	A	C	A	M	exonic	GRIN2A	missense	NM_001134407:p.W1271G
7285	16	13927978	13927978	C	T	C	Y	exonic	ERCC4	missense	NM_005236:p.R150C
7285	16	20330330	20330330	T	C	T	Y	exonic	ACSM5	missense	NM_017888:p.L8P
7285	16	49731751	49731751	C	A	C	M	exonic	SALL1	missense	NM_001127892:p.G531V
7285	16	54994435	54994435	T	A	T	W	exonic	AMFR	nonsense	NM_0011444:p.K313X
7285	16	57133655	57133655	G	A	G	R	exonic	CNOT1	missense	NM_016284:p.P1554L
7285	16	75950732	75950732	G	T	G	K	exonic	ADAMTS18	missense	NM_199355:p.H436N
7285	16	87399541	87399541	G	T	G	K	exonic	CDT1	missense	NM_030928:p.M227I
7285	17	7520443	7520443	A	-	G	*/-A	exonic	TP53	FS_del	NM_001126113:p.L26fs
7285	17	8107152	8107152	G	T	G	K	splicing	PFAS	missense	NM_012393:p.V471L
7285	17	10342693	10342693	G	A	G	R	exonic	MYH1	missense	NM_005963:p.R1386C
7285	17	50439923	50439923	C	T	C	Y	exonic	STXBPA	missense	NM_178509:p.P211L
7285	17	53924943	53924943	G	A	G	R	exonic	MTMR4	missense	NM_004687:p.P1113L
7285	17	78383528	78383528	G	T	G	K	exonic	ZNF750	missense	NM_024702:p.P31H
7285	18	336550	336550	G	A	G	R	exonic	COLEC12	missense	NM_130386:p.R358W
7285	18	35168979	35168979	A	G	A	R	ncRNA	LOC647946	NA	NA
7285	18	46829184	46829184	G	T	G	K	exonic	SMAD4	missense	NM_005359:p.C127F
7285	18	48846516	48846516	C	A	C	M	exonic	DCC	missense	NM_005215:p.L415I
7285	19	13854704	13854704	T	C	T	Y	exonic	C19orf57	missense	NM_024323:p.T609A
7285	19	21350562	21350562	A	T	A	W	ncRNA	ZNF738	NA	NA
7285	19	21702622	21702622	G	A	G	R	exonic	ZNF100	missense	NM_173531:p.S111F
7285	19	22155869	22155869	T	C	T	Y	exonic	ZNF676	missense	NM_001001411:p.T164A
7285	19	22951726	22951726	G	A	G	R	intergenic	NA	NA	NA
7285	19	57579861	57579861	C	A	C	M	exonic	ZNF880	missense	NM_001145434:p.Q406K
7285	19	57749605	57749605	A	G	A	R	exonic	ZNF808	missense	NM_001039886:p.T542A
7285	19	62750248	62750248	G	C	G	S	exonic	ZNF550	missense	NM_001039654:p.I351M
7285	20	338561	338561	C	T	C	Y	exonic	RBCK1	missense	NM_031229:p.A20V
7285	20	1480450	1480450	C	A	C	M	exonic	SIRPD	missense	NM_178460:p.R103L
7285	20	9337715	9337715	G	C	G	S	exonic	PLCB4	missense	NM_182797:p.R617P
7285	20	13715997	13715997	A	T	A	W	splicing	C20orf7	nonsense	NM_024120:p.R88X
7285	20	21635111	21635111	G	C	G	S	exonic	PAX1	missense	NM_006192:p.V108L
7285	20	30019907	30019907	T	C	T	Y	exonic	XKR7	missense	NM_001011718:p.F90L
7285	20	31137538	31137538	T	C	T	Y	exonic	C20orf186	missense	NM_182519:p.V278A
7285	20	47045773	47045773	C	G	C	S	exonic	ARFGEF2	missense	NM_006420:p.F1056L
7285	20	49566879	49566879	G	T	G	K	exonic	NFATC2	missense	NM_001136021:p.P375T
7285	21	9966651	9966651	G	T	G	K	exonic	TPTE	missense	NM_199260:p.Q114K
7285	22	30918958	30918958	G	T	G	K	exonic	RFPL2	missense	NM_006605:p.H102N
7285	22	41988706	41988706	C	T	C	Y	exonic	SCUBE1	missense	NM_173050:p.G192S
7285	22	49268058	49268058	A	G	R	R	exonic	ADM2	missense	NM_024866:p.A103T
7285	22	49411471	49411471	A	-	G	*/-A	exonic	ARSA	FS_del	NM_001085427:p.F319fs
7285	X	7849828	7849828	C	A	C	M	exonic	PNPLA4	missense	NM_001172672:p.V26L
7285	X	18129924	18129924	G	T	G	K	exonic	BEND2	missense	NM_153346:p.P322Q
7285	X	31406370	31406370	A	G	A	R	exonic	DMD	missense	NM_004020:p.L444P
7285	X	106072678	106072678	C	T	C	Y	exonic	MORC4	missense	NM_001085354:p.G700D
7285	X	109581237	109581237	C	A	C	M	exonic	RGAG1	missense	NM_020769:p.L246I
7285	X	118855966	118855966	C	A	C	M	exonic	UPF3B	nonsense	NM_023010:p.E349X
7285	X	150520694	150520694	G	T	G	K	exonic	PASD1	missense	NM_173493:p.G5W
7285	X	150663306	150663306	G	A	G	R	exonic	CNGA2	missense	NM_005140:p.A559T
7313	1	16598463	16598463	G	T	G	K	exonic	SPATA21	missense	NM_198546:p.R439S
7313	1	17221745	17221745	G	A	G	R	exonic	SDHB	missense	NM_003000:p.P237L
7313	1	19396789	19396789	C	A	C	M	exonic	UBR4	missense	NM_020765:p.M285I
7313	1	20886650	20886650	C	G	C	S	exonic	KIF17	missense	NM_001122819:p.A586P
7313	1	35977688	35977688	G	A	G	R	exonic	CLSPN	missense	NM_001190481:p.A994V
7313	1	70224525	70224525	T	A	T	W	exonic	LRRC7	missense	NM_020794:p.L229I
7313	1	85179260	85179260	G	C	G	S	exonic	MCOLN2	missense	NM_153259:p.Q284E
7313	1	103152551	103152551	T	A	T	W	splicing	COL11A1	NA	NA
7313	1	111240846	111240846	C	T	C	Y	exonic	CD53	missense	NM_000560:p.P158S
7313	1	148397755	148397755	G	A	G	R	exonic	PLEKH01	missense	NM_016274:p.V215M
7313	1	154104595	154104595	G	C	G	S	exonic	SYT11	missense	NM_152280:p.G84R
7313	1	157078677	157078677	C	T	C	Y	exonic	MNDA	missense	NM_002432:p.T37I
7313	1	159762700	159762700	C	A	C	M	exonic	HSPA6	nonsense	NM_002155:p.S543X
7313	1	163780453	163780453	G	T	G	K	exonic	LRRCS2	missense	NM_001005214:p.G99V
7313	1	167612560	167612560	C	T	C	Y	exonic	BLZF1	missense	NM_003666:p.L63F
7313	1	174316912	174316912	T	C	T	Y	splicing	RFWD2	missense	NM_022457:p.S426G
7313	1	177321625	177321625	C	T	C	Y	exonic	TOR3A	missense	NM_022371:p.H205Y
7313	1	195288387	195288387	C	G	C	S	splicing	F13B	missense	NM_001994:p.E519Q
7313	1	215859949	215859949	T	G	T	K	exonic	GPATCH2	missense	NM_018040:p.Q191P
7313	1	226945979	226945979	G	A	G	R	exonic	RHOA	missense	NM_021205:p.D216N

7313	1	229473156	229473156	G	T	G	K	exonic	GNPAT	missense	NM_014236:p.A4375
7313	1	232666292	232666292	T	A	T	W	exonic	TARBP1	missense	NM_005646:p.Q438L
7313	1	241802912	241802912	G	T	G	K	exonic	AKT3	missense	NM_005465:p.A253E
7313	1	246410259	246410259	G	C	G	S	exonic	OR2M2	missense	NM_001004688:p.V117L
7313	2	26267721	26267721	G	A	G	R	exonic	HADHA	missense	NM_000182:p.R732W
7313	2	37159879	37159879	G	C	G	S	exonic	HEATR5B	missense	NM_019024:p.L76V
7313	2	79238974	79238974	G	C	G	S	exonic	REG3A	missense	NM_138938:p.H107D
7313	2	86197773	86197773	A	G	A	R	exonic	PTCD3	missense	NM_017952:p.I132V
7313	2	132085614	132085614	G	T	G	K	ncRNA	POTEKP	NA	NA
7313	2	135333373	135333373	C	A	C	M	exonic	ACMSD	missense	NM_138326:p.R59S
7313	2	136281421	136281421	C	A	C	M	exonic	LCT	missense	NM_002299:p.G1307V
7313	2	141468136	141468136	C	A	C	M	exonic	LRP1B	nonsense	NM_018557:p.G848X
7313	2	153283551	153283551	G	C	G	S	exonic	ARL6IP6	missense	NM_152522:p.R56P
7313	2	159820980	159820980	C	G	C	S	exonic	WDSUB1	missense	NM_001128213:p.E369Q
7313	2	159822617	159822617	C	G	C	S	exonic	WDSUB1	missense	NM_001128213:p.V284L
7313	2	175691002	175691002	G	A	G	R	exonic	ATF2	missense	NM_001880:p.P137S
7313	2	177807179	177807179	C	G	C	S	exonic	NFE2L2	missense	NM_001145412:p.D22H
7313	2	185509270	185509270	G	T	G	K	exonic	ZNF804A	missense	NM_194250:p.S301I
7313	2	241714553	241714553	C	A	C	M	exonic	PASK	missense	NM_015148:p.C817F
7313	3	9940689	9940689	G	A	G	R	exonic	IL17RC	missense	NM_032732:p.H234Q
7313	3	38735180	38735180	C	A	C	M	exonic	SCN10A	missense	NM_006514:p.A1217S
7313	3	86015129	86015129	A	T	A	W	splicing	CADM2	NA	NA
7313	3	95075874	95075874	C	A	C	M	exonic	PROS1	missense	NM_000313:p.G646C
7313	3	95216660	95216660	C	G	C	S	exonic	STX19	missense	NM_001001850:p.E48D
7313	3	109958594	109958594	A	G	A	R	splicing	RETNLB	NA	NA
7313	3	110305434	110305434	C	A	C	M	exonic	MORC1	missense	NM_014429:p.G59W
7313	3	120130116	120130116	G	C	G	S	exonic	IGSF11	nonsense	NM_152538:p.Y117X
7313	3	122583057	122583057	G	A	G	R	exonic	STXBPSL	missense	NM_014980:p.V883I
7313	3	125692946	125692946	T	A	T	W	exonic	KALRN	missense	NM_001024660:p.N1556K
7313	3	130730373	130730373	A	T	A	W	exonic	RHO	missense	NM_000539:p.Q36L
7313	3	152555605	152555605	A	T	A	W	exonic	MED12L	missense	NM_053002:p.D767V
7313	3	166182882	166182882	G	T	G	K	exonic	SI	missense	NM_001041:p.T1753K
7313	3	180824488	180824488	T	A	T	W	exonic	NDUF5	missense	NM_001199957:p.I127N
7313	3	187918160	187918160	C	A	C	M	exonic	KNG1	missense	NM_000893:p.N45K
7313	4	48741575	48741575	G	T	G	K	exonic	CWH43	missense	NM_025087:p.D607Y
7313	4	72850093	72850093	C	A	C	M	exonic	GC	missense	NM_000583:p.Q131H
7313	4	77879581	77879581	C	T	C	Y	exonic	SHROOM3	missense	NM_020859:p.R411W
7313	4	111759101	111759101	G	T	G	K	exonic	PITX2	missense	NM_000325:p.P202T
7313	4	116217169	116217169	C	A	C	M	exonic	NDST4	missense	NM_022569:p.S158I
7313	4	123328052	123328052	G	T	G	K	exonic	KIAA1109	nonsense	NM_015312:p.E188X
7313	4	155726590	155726590	C	A	C	M	exonic	FGA	nonsense	NM_000508:p.E481X
7313	4	156354606	156354606	A	G	A	R	exonic	NPY2R	missense	NM_000910:p.Y22C
7313	5	3652403	3652403	C	G	C	S	exonic	IRX1	missense	NM_024337:p.A114G
7313	5	19874647	19874647	G	C	G	S	exonic	CDH18	missense	NM_001167667:p.P69R
7313	5	21819255	21819255	C	A	C	M	exonic	CDH12	missense	NM_004061:p.Q454H
7313	5	35809811	35809811	G	T	G	K	exonic	SPEF2	nonsense	NM_024867:p.E1337X
7313	5	45302989	45302989	C	A	C	M	exonic	HCN1	missense	NM_021072:p.R581I
7313	5	50147087	50147087	C	T	C	Y	exonic	PARP8	missense	NM_001178056:p.A547V
7313	5	63292794	63292794	G	C	G	S	exonic	HTR1A	missense	NM_000524:p.P170R
7313	5	112427765	112427765	T	C	T	Y	splicing	MCC	NA	NA
7313	5	131979679	131979679	-	T	A	*/+T	exonic	RAD50	FS_ins	NM_005732:p.H1041fs
7313	5	175950038	175950038	C	G	C	S	exonic	CDHR2	missense	NM_001171976:p.I1120M
7313	6	24594282	24594282	C	T	C	Y	splicing	GPLD1	silent	NM_001503:p.E51E
7313	6	28580099	28580099	G	C	G	S	exonic	GPX6	missense	NM_182701:p.S205R
7313	6	70120888	70120888	C	A	C	M	exonic	BAL3	missense	NM_001704:p.P1168T
7313	6	76717483	76717483	G	A	G	R	exonic	IMPG1	missense	NM_001563:p.A447V
7313	6	99924304	99924304	C	A	C	M	exonic	COQ3	missense	NM_017421:p.V335F
7313	6	106642943	106642943	G	T	G	K	exonic	PRDM1	missense	NM_001198:p.G73C
7313	6	134345445	134345445	G	T	G	K	exonic	TBPL1	missense	NM_004865:p.W61L
7313	6	151831438	151831438	A	T	A	W	exonic	C6orf211	missense	NM_024573:p.T276S
7313	6	152782416	152782416	A	T	A	W	exonic	SYNE1	missense	NM_182961:p.V1801E
7313	7	23315572	23315572	G	T	G	K	exonic	C7orf30	missense	NM_138446:p.R197L
7313	7	38398016	38398016	C	A	C	M	exonic	AMPH	missense	NM_139316:p.S537I
7313	7	63805342	63805342	G	T	G	K	exonic	ZNF107	nonsense	NM_016220:p.E409X
7313	7	80128362	80128362	A	T	A	W	exonic	CD36	missense	NM_000072:p.N110I
7313	7	88803465	88803465	C	G	C	S	exonic	ZNF804B	missense	NM_181646:p.P1078R
7313	7	92823159	92823159	G	T	G	K	exonic	CCDC132	missense	NM_017667:p.C869F
7313	7	95004926	95004926	C	G	C	S	exonic	ASB4	missense	NM_016116:p.C400W
7313	7	99809207	99809207	A	G	A	R	UTR5	PILRA	NA	NA
7313	7	107204213	107204213	C	T	C	Y	exonic	SLC26A3	missense	NM_000111:p.E533K
7313	7	110550783	110550783	G	T	G	K	exonic	LRRN3	missense	NM_001099660:p.S240I
7313	7	111883293	111883293	G	T	G	K	splicing	IFRD1	missense	NM_001550:p.G67V
7313	7	124191326	124191326	C	A	C	M	exonic	GPR37	missense	NM_005302:p.C314F
7313	7	125960819	125960819	C	A	C	M	exonic	GRM8	missense	NM_001127323:p.G618V
7313	7	136822907	136822907	G	T	G	K	exonic	DGKI	missense	NM_004717:p.R791S
7313	7	137451937	137451937	G	T	G	K	exonic	AKR1D1	missense	NM_001190906:p.D283Y
7313	7	139694936	139694936	G	A	G	R	exonic	SLC37A3	missense	NM_032295:p.A328V
7313	7	142170796	142170796	T	C	T	Y	intergenic	NA	NA	NA
7313	7	151658629	151658629	C	-	G	*/-C	exonic	MLL3	FS_del	NM_170606:p.A127fs

7313	8	8271840	8271840	C	-	A	*-/C	exonic	SGK223	FS_del	NM_001080826:p.V497fs
7313	8	16022442	16022442	C	A	C	M	exonic	MSR1	nonsense	NM_138715:p.E360X
7313	8	27665969	27665969	C	T	C	Y	exonic	CCDC25	missense	NM_018246:p.V75M
7313	8	68340991	68340991	C	A	C	M	exonic	ARFGEF1	nonsense	NM_006421:p.E643X
7313	8	69174558	69174558	C	G	C	S	exonic	PREX2	missense	NM_024870:p.L881V
7313	8	93068375	93068375	C	A	C	M	splicing	RUNX1T1	silent	NM_001198679:p.G390G
7313	9	38517586	38517586	C	T	C	Y	intergenic	NA	NA	NA
7313	9	73550195	73550195	G	C	G	S	exonic	TMEM2	missense	NM_001135820:p.S198C
7313	9	94217469	94217469	A	T	A	W	exonic	OMD	missense	NM_005014:p.F351Y
7313	9	113449301	113449301	C	T	C	Y	exonic	DNAJC25	missense	NM_001015882:p.P144S
7313	10	393838	393838	G	A	G	R	exonic	DIP2C	missense	NM_014974:p.S945F
7313	10	14612398	14612398	G	C	G	S	exonic	FAM107B	missense	NM_031453:p.P198A
7313	10	27742416	27742416	C	T	C	Y	exonic	PTCHD3	missense	NM_001034842:p.R257K
7313	10	42612299	42612299	A	G	A	R	exonic	BMS1	missense	NM_014753:p.E534G
7313	10	102728963	102728963	G	A	G	R	exonic	SEMA4G	missense	NM_017893:p.A310T
7313	10	108327262	108327262	G	C	G	S	exonic	SORCS1	missense	NM_052918:p.P1138R
7313	10	115794267	115794267	T	C	T	Y	exonic	ADRB1	missense	NM_000684:p.F129S
7313	11	393681	393681	-	G	C	*/+G	exonic	PKP3	FS_ins	NM_007183:p.R663fs
7313	11	1263862	1263862	C	T	C	Y	exonic	TOLLIP	missense	NM_019009:p.V186M
7313	11	4826819	4826819	G	A	G	R	exonic	OR51S1	missense	NM_001004758:p.P66S
7313	11	6772876	6772876	C	A	C	M	exonic	OR6A2	missense	NM_003696:p.G214W
7313	11	18209665	18209665	G	A	G	R	exonic	SAA2-SAA4	missense	NM_001199744:p.P196L
7313	11	40094292	40094292	G	C	G	S	exonic	LRRC4C	missense	NM_020929:p.R43G
7313	11	55647079	55647079	G	A	G	R	exonic	OR8H3	missense	NM_001005201:p.V219M
7313	11	55986861	55986861	A	G	A	R	exonic	OR5M9	missense	NM_001004743:p.L198T
7313	11	58233865	58233865	G	T	G	K	exonic	GLYAT	missense	NM_201648:p.H281N
7313	11	58946080	58946080	C	T	C	Y	exonic	OR5A2	missense	NM_001001954:p.R308K
7313	11	64581430	64581430	G	A	G	R	exonic	NAALADL1	missense	NM_005468:p.R198C
7313	11	65407278	65407278	T	A	T	W	exonic	CTSW	missense	NM_001335:p.V276E
7313	11	75580364	75580364	T	C	T	Y	exonic	WNT11	missense	NM_004626:p.K261R
7313	11	103413013	103413013	C	A	C	M	exonic	DDI1	missense	NM_001001711:p.P85T
7313	11	122353797	122353797	A	G	A	R	exonic	BSX	missense	NM_001098169:p.F158L
7313	11	123319221	123319221	G	T	G	K	exonic	OR6T1	missense	NM_001005187:p.R179S
7313	11	129307205	129307205	A	T	A	W	splicing	PRDM10	NA	NA
7313	12	841543	841543	C	T	C	Y	exonic	WNK1	missense	NM_018979:p.S662F
7313	12	864919	864919	A	T	A	W	exonic	WNK1	missense	NM_018979:p.Q1563L
7313	12	6089903	6089903	C	T	C	Y	exonic	VWF	missense	NM_000552:p.G144S
7313	12	20677893	20677893	G	T	G	K	splicing	PDE3A	NA	NA
7313	12	37984960	37984960	C	A	C	M	exonic	KIF21A	missense	NM_017641:p.C1484F
7313	12	54149865	54149865	C	A	C	M	exonic	OR6C70	nonsense	NM_001005499:p.E109X
7313	12	61240537	61240537	G	T	G	K	splicing	MON2	NA	NA
7313	12	74023956	74023956	T	A	T	W	exonic	GLIPR1L1	missense	NM_152779:p.C131S
7313	13	51446909	51446909	C	G	C	S	exonic	ATP7B	missense	NM_000053:p.E150Q
7313	13	66103383	66103383	G	T	G	K	exonic	PCDH9	missense	NM_203487:p.D1100E
7313	13	93478057	93478057	C	A	C	M	exonic	GPC6	missense	NM_005708:p.T262N
7313	14	19458885	19458885	T	A	T	W	exonic	OR4K5	missense	NM_001005483:p.F94I
7313	14	20094643	20094643	A	T	A	W	exonic	RNASE9	nonsense	NM_001110358:p.C147X
7313	14	23642247	23642247	G	T	G	K	exonic	PKC2	missense	NM_004563:p.G471W
7313	14	33332994	33332994	C	A	C	M	exonic	NPAS3	missense	NM_173159:p.L419I
7313	14	63263761	63263761	T	C	T	Y	exonic	SGPP1	missense	NM_030791:p.M219V
7313	14	91970046	91970046	G	T	G	K	exonic	SLC24A4	missense	NM_153647:p.K93N
7313	14	92751070	92751070	T	G	T	K	exonic	UBR7	missense	NM_175748:p.F162V
7313	14	104684768	104684768	C	G	C	S	exonic	JAG2	missense	NM_002226:p.G807R
7313	15	21362782	21362782	C	A	C	S	exonic	MKRN3	missense	NM_005664:p.R254G
7313	15	32142850	32142850	T	A	T	W	exonic	CHRM5	missense	NM_012125:p.C214S
7313	15	32232467	32232467	C	G	C	S	exonic	C15orf29	missense	NM_024713:p.R85T
7313	15	41854003	41854003	C	G	C	S	exonic	ELL3	missense	NM_025165:p.E277Q
7313	15	60780660	60780660	G	T	G	K	exonic	TLN2	missense	NM_015059:p.D551Y
7313	15	60806656	60806656	G	T	G	K	exonic	TLN2	missense	NM_015059:p.A1112S
7313	15	72361203	72361203	C	-	G	*-/C	exonic	CCDC33	FS_del	NM_025055:p.A352fs
7313	15	82485086	82485086	G	T	G	K	exonic	ADAMTSL3	missense	NM_207517:p.G1517V
7313	16	3741731	3741731	T	C	T	Y	exonic	CREBBP	missense	NM_004380:p.Q1259R
7313	16	5065388	5065388	A	T	A	W	splicing	ALG1	NA	NA
7313	16	9765157	9765157	C	T	C	Y	exonic	GRIN2A	missense	NM_001134407:p.D1249N
7313	16	10181595	10181595	G	C	G	S	exonic	GRIN2A	missense	NM_001134407:p.Q59E
7313	16	23907383	23907383	C	T	C	Y	exonic	PRKCB	missense	NM_002738:p.P87S
7313	16	49731266	49731266	C	A	C	M	exonic	SALL1	nonsense	NM_002968:p.G790X
7313	16	70129135	70129135	G	A	G	R	exonic	CHST4	missense	NM_005769:p.D352N
7313	16	74070180	74070180	C	G	C	S	exonic	CHST6	missense	NM_021615:p.A350P
7313	17	4672957	4672957	A	T	A	W	exonic	PLD2	missense	NM_002663:p.Y878F
7313	17	7518276	7518276	C	G	C	S	exonic	TP53	missense	NM_001126117:p.G112R
7313	17	9677873	9677873	A	G	A	R	exonic	GLP2R	missense	NM_004246:p.T72A
7313	17	10248473	10248473	T	C	T	Y	exonic	MYH8	missense	NM_002472:p.K863E
7313	17	49255563	49255563	C	A	C	M	exonic	KIF2B	missense	NM_032559:p.T57K
7313	17	53713018	53713018	G	T	G	K	exonic	MPO	missense	NM_000250:p.A34E
7313	17	57022885	57022885	C	A	C	M	exonic	NACA2	missense	NM_199290:p.G147C
7313	17	77420125	77420125	G	C	G	S	exonic	ARHGDI1	missense	NM_004309:p.I177M
7313	18	5413430	5413430	T	A	T	W	exonic	EPB41L3	missense	NM_012307:p.Y429F
7313	18	27189054	27189054	G	T	G	K	exonic	DSG1	missense	NM_001942:p.G966V

7313	18	49102480	49102480	C	A	C	M	exonic	DCC	missense	NM_005215;p.P707T
7313	18	62323185	62323185	G	T	G	K	exonic	CDH19	nonsense	NM_021153;p.Y721X
7313	19	570252	570252	G	C	G	S	exonic	POLRMT	missense	NM_005035;p.F1037L
7313	19	2159933	2159933	G	C	G	S	splicing	DOT1L	NA	NA
7313	19	7499572	7499572	G	T	G	K	exonic	MCOLN1	missense	NM_020533;p.G323C
7313	19	9132546	9132546	A	T	A	W	exonic	ZNF317	missense	NM_020933;p.M409L
7313	19	39275684	39275684	T	A	T	W	intergenic	NA	NA	NA
7313	19	41809402	41809402	C	A	C	M	exonic	ZNF382	missense	NM_032825;p.L255I
7313	19	42561932	42561932	A	C	A	M	exonic	ZNF527	missense	NM_032453;p.Q35P
7313	19	47003028	47003028	A	T	A	W	intronic	CEACAM3	NA	NA
7313	19	56072036	56072036	T	A	T	W	exonic	KLK2	nonsense	NM_005551;p.L197X
7313	19	57086239	57086239	C	A	C	M	exonic	ZNF649	missense	NM_023074;p.S321I
7313	19	60381452	60381452	G	C	G	S	exonic	SYT5	missense	NM_003180;p.T59R
7313	19	60403676	60403676	T	A	T	W	exonic	PTPRH	missense	NM_001161440;p.N209I
7313	19	61055539	61055539	G	T	G	K	splicing	NLRP4	NA	NA
7313	20	1517206	1517206	C	A	C	M	intronic	SIRPB1	NA	NA
7313	20	8718179	8718179	T	C	T	Y	exonic	PLCB1	missense	NM_182734;p.M1098T
7313	20	22964835	22964835	C	A	C	M	exonic	SSTR4	missense	NM_001052;p.R239S
7313	21	9963844	9963844	C	A	C	M	splicing	TPTE	NA	NA
7313	22	45083124	45083124	G	A	G	R	exonic	GTSE1	missense	NM_016426;p.D128N
7313	22	45174373	45174373	C	A	C	M	exonic	CELSR1	nonsense	NM_014246;p.E1773X
7313	X	2782104	2782104	A	G	A	R	exonic	GYG2	missense	NM_003918;p.K109R
7313	X	13666895	13666895	A	G	A	R	exonic	OFD1	missense	NM_003611;p.M108V
7313	X	26146028	26146028	G	T	G	K	intergenic	NA	NA	NA
7313	X	29883324	29883324	G	A	G	R	exonic	IL1RAPL1	missense	NM_014271;p.M519I
7313	X	48921364	48921364	A	G	R	R	exonic	PRICKLE3	missense	NM_006150;p.R293C
7313	X	57179437	57179437	G	T	G	K	exonic	SPIN2A	missense	NM_019003;p.L107I
7313	X	85954605	85954605	G	T	G	K	exonic	DACH2	missense	NM_001139515;p.G277V
7313	X	104365342	104365342	A	G	A	R	exonic	IL1RAPL2	missense	NM_017416;p.K181E
7313	X	104537558	104537558	C	A	C	M	intronic	IL1RAPL2	NA	NA
7313	X	107290436	107290436	G	A	G	R	exonic	COL4A6	missense	NM_001847;p.P1481S
7313	X	130506577	130506577	G	T	G	K	exonic	OR13H1	missense	NM_001004486;p.M283I
7313	X	152685681	152685681	G	A	G	R	exonic	PLXNB3	missense	NM_001163257;p.G92S
7313	Y	15451648	15451648	G	T	G	K	exonic	NLGN4Y	missense	NM_014893;p.D486Y
7313	M	11752	11752	A	G	A	R	intergenic	NA	NA	NA
7945	1	62359526	62359526	G	A	G	R	exonic	INADL	missense	NM_176877;p.R1659K
7945	1	183031450	183031450	C	T	C	Y	exonic	FAM129A	missense	NM_052966;p.E691K
7945	1	218893175	218893175	G	-	T	*/-G	exonic	MARK1	FS_del	NM_018650;p.G616fs
7945	1	245761921	245761921	G	C	G	S	exonic	OR2C3	missense	NM_198074;p.N172K
7945	16	1440569	1440569	G	A	G	R	exonic	CLCN7	missense	NM_001287;p.P516L
7996	1	70250137	70250137	C	A	C	M	exonic	LRRC7	nonsense	NM_020794;p.Y320X
7996	1	70250138	70250138	C	A	C	M	exonic	LRRC7	missense	NM_020794;p.L321I
7996	1	153716158	153716158	C	T	C	Y	exonic	ASH1L	missense	NM_018489;p.G1043R
7996	1	157210169	157210169	G	T	G	K	exonic	PYHIN1	missense	NM_198928;p.A481S
7996	1	175492926	175492926	T	G	T	K	intronic	FAM5B	NA	NA
7996	1	195015086	195015086	G	T	G	K	exonic	CFHR3	missense	NM_001166624;p.W77L
7996	1	195015087	195015087	G	T	G	K	exonic	CFHR3	missense	NM_001166624;p.W77C
7996	1	195670714	195670714	C	T	C	Y	exonic	CRB1	missense	NM_001193640;p.T921I
7996	1	214324761	214324761	G	T	G	K	exonic	USH2A	missense	NM_206933;p.P1690H
7996	1	214324762	214324762	G	T	G	K	exonic	USH2A	missense	NM_206933;p.P1690T
7996	1	218158271	218158271	C	A	C	M	exonic	SLC30A10	missense	NM_018713;p.A303S
7996	2	79203539	79203539	C	G	C	S	exonic	REG1A	missense	NM_002909;p.P129R
7996	2	223625884	223625884	G	T	G	K	exonic	KCNE4	missense	NM_080671;p.G31V
7996	3	152648252	152648252	C	T	C	Y	exonic	IGSF10	missense	NM_178822;p.R736H
7996	3	167030624	167030624	G	C	G	S	exonic	BCHE	missense	NM_000055;p.Q298E
7996	4	35811396	35811396	T	C	T	Y	exonic	ARAP2	missense	NM_015230;p.I1092V
7996	4	110672006	110672006	G	A	G	R	exonic	SEC24B	missense	NM_001042734;p.G1055D
7996	4	126590385	126590385	G	A	G	R	exonic	FAT4	missense	NM_024582;p.A2922T
7996	5	70854394	70854394	G	A	G	R	exonic	BDP1	missense	NM_018429;p.G1750D
7996	5	140543397	140543397	C	A	C	M	exonic	PCDHB16	nonsense	NM_020957;p.S360X
7996	5	167815062	167815062	A	C	A	M	exonic	VWVC1	missense	NM_001161662;p.K928Q
7996	6	10803254	10803254	T	C	T	Y	exonic	PAK1IP1	missense	NM_017906;p.V17A
7996	6	21063796	21063796	G	A	G	R	splicing	CDKAL1	NA	NA
7996	6	159103153	159103153	A	G	A	R	exonic	SYTL3	missense	NM_001009991;p.N423S
7996	8	53188343	53188343	T	A	T	W	exonic	ST18	missense	NM_014682;p.I1038F
7996	8	54304587	54304587	G	C	G	S	exonic	OPRK1	missense	NM_000912;p.N322K
7996	9	26989622	26989622	G	C	G	S	exonic	LRRC19	missense	NM_022901;p.S24C
7996	9	33913820	33913820	A	T	A	W	exonic	UBAP2	missense	NM_018449;p.S923R
7996	9	70818216	70818216	A	C	A	M	exonic	PRKACG	missense	NM_002732;p.Y205D
7996	9	115971349	115971349	G	A	G	R	exonic	COL27A1	missense	NM_032888;p.D565N
7996	10	78502956	78502956	C	A	C	M	exonic	KCNMA1	missense	NM_001161352;p.A552S
7996	11	6847814	6847814	G	T	G	K	exonic	OR10A2	missense	NM_001004460;p.A85S
7996	11	34090188	34090188	A	G	A	R	exonic	NAT10	missense	NM_024662;p.R72G
7996	11	55163056	55163056	A	T	A	W	exonic	OR4P4	missense	NM_001004124;p.Y216F
7996	11	103413501	103413501	C	G	C	S	exonic	DDI1	missense	NM_001001711;p.N247K
7996	11	125010623	125010623	G	T	G	K	exonic	CHEK1	missense	NM_001114121;p.D235Y
7996	12	54890445	54890445	C	T	C	Y	exonic	RNF41	missense	NM_194358;p.G18S
7996	12	56302881	56302881	T	C	T	Y	exonic	SLC26A10	missense	NM_133489;p.I279T
7996	14	71274712	71274712	A	T	A	W	splicing	SIPA1L1	missense	NM_015556;p.S1730C

7996	15	19037939	19037939	G	T	G	K	ncRNA	GOLGA8C	NA	NA
7996	15	49072982	49072982	G	A	G	R	exonic	AP4E1	missense	NM_007347:p.M738I
7996	15	54470875	54470875	A	G	A	R	exonic	TEX9	missense	NM_198524:p.L180V
7996	15	66774636	66774636	C	A	C	M	exonic	CORO2B	nonsense	NM_001190457:p.S102X
7996	16	17119217	17119217	C	T	C	Y	exonic	XYLT1	missense	NM_022166:p.V782I
7996	16	74220863	74220863	T	C	T	Y	exonic	KARS	missense	NM_001130089:p.E529G
7996	17	7519188	7519188	C	G	C	S	exonic	TP53	missense	NM_001126117:p.R24P
7996	17	53413139	53413139	G	C	G	S	exonic	VEZF1	missense	NM_007146:p.T267S
7996	18	3492541	3492541	G	A	G	R	exonic	DLGAP1	missense	NM_004746:p.H892Y
7996	18	32552519	32552519	G	T	G	K	exonic	FHOD3	missense	NM_025135:p.R912L
7996	19	4122710	4122710	C	A	C	M	exonic	CREB3L3	missense	NM_032607:p.P377Q
7996	19	47601553	47601553	C	G	C	S	splicing	LIPE	missense	NM_005357:p.G789A
7996	19	51080101	51080101	C	A	C	M	exonic	IRF2BP1	missense	NM_015649:p.A258S
7996	19	59446590	59446590	G	A	G	R	exonic	LILRB5	missense	NM_006840:p.P549S
7996	22	29341366	29341366	C	A	C	M	exonic	TCN2	missense	NM_000355:p.T220N
7996	X	26122677	26122677	G	A	G	R	exonic	MAGEB6	missense	NM_173523:p.V265I
7996	X	29324443	29324443	T	A	T	W	exonic	IL1RAPL1	missense	NM_014271:p.F170L
7996	X	35895716	35895716	C	A	C	M	exonic	CXorf22	missense	NM_152632:p.R554S
7996	X	148851571	148851571	T	A	T	W	exonic	CXorf40B	missense	NM_001013845:p.N109I
L383	3	75869463	75869463	T	A	T	W	exonic	ZNF717	missense	NM_001128223:p.R667S
LU-1516	1	245090919	245090919	G	A	G	R	exonic	AHCTF1	missense	NM_015446:p.A1355V
LU-1516	5	67605579	67605579	C	T	C	Y	exonic	PIK3R1	nonsense	NM_181523:p.R162X
LU-1516	6	31233141	31233141	C	A	C	M	splicing	CHCHR1	missense	NM_001105563:p.R72S
LU-1516	6	52872771	52872771	A	G	A	R	exonic	GSTA3	missense	NM_000847:p.C112R
LU-1516	7	55227009	55227009	T	G	T	K	exonic	EGFR	missense	NM_005228:p.L858R
LU-1516	8	87311171	87311171	C	T	C	Y	exonic	SLC7A13	missense	NM_138817:p.R151H
LU-1516	X	9824046	9824046	C	A	C	M	exonic	SHROOM2	missense	NM_001649:p.R700S
LU-1800	3	135036120	135036120	C	G	C	S	exonic	RAB6B	missense	NM_016577:p.S184T
LU-1991	1	33840574	33840574	C	A	C	M	exonic	CSMD2	missense	NM_052896:p.G2233V
LU-1991	1	67211197	67211197	T	G	T	K	exonic	MIER1	missense	NM_001146112:p.C2666G
LU-1991	1	77760111	77760111	G	T	G	K	exonic	AK5	missense	NM_012093:p.L415F
LU-1991	1	116069698	116069698	C	A	C	M	splicing	CASQ2	NA	NA
LU-1991	1	148165212	148165212	G	C	G	S	exonic	SF3B4	missense	NM_005850:p.T129S
LU-1991	1	153416390	153416390	G	A	G	R	splicing	TRIM46	silent	NM_025058:p.E303E
LU-1991	1	156565843	156565843	C	G	C	S	exonic	CD1B	missense	NM_001764:p.G276A
LU-1991	1	174317038	174317038	G	A	G	R	exonic	RFWD2	nonsense	NM_022457:p.R384X
LU-1991	1	178418035	178418035	G	T	G	K	exonic	RSOX1	missense	NM_001004128:p.C237F
LU-1991	1	201404786	201404786	C	T	C	Y	exonic	MYBPH	missense	NM_004997:p.A430T
LU-1991	1	210218392	210218392	G	C	G	S	exonic	INTS7	missense	NM_001199809:p.H390D
LU-1991	1	210218393	210218393	C	A	C	M	exonic	INTS7	missense	NM_001199809:p.L389F
LU-1991	1	212237806	212237806	G	C	G	S	exonic	PROX1	missense	NM_002763:p.Q435H
LU-1991	1	213920329	213920329	G	A	G	R	exonic	USH2A	nonsense	NM_206933:p.Q4027X
LU-1991	1	214436544	214436544	G	C	G	S	exonic	USH2A	missense	NM_007123:p.Q1409E
LU-1991	1	225240900	225240900	C	G	C	S	exonic	ADCK3	missense	NM_020247:p.L595V
LU-1991	1	234220832	234220832	C	A	C	M	exonic	NID1	missense	NM_002508:p.A969S
LU-1991	1	241534662	241534662	G	T	G	K	exonic	SDCCAG8	nonsense	NM_006642:p.E234X
LU-1991	2	11252590	11252590	T	A	T	W	exonic	ROCK2	missense	NM_004850:p.E1154V
LU-1991	2	26538102	26538102	C	A	C	M	exonic	OTOF	missense	NM_194248:p.W1833C
LU-1991	2	26538103	26538103	C	A	C	M	exonic	OTOF	missense	NM_194248:p.W1833L
LU-1991	2	27160005	27160005	G	C	G	S	exonic	EMILIN1	missense	NM_007046:p.E688Q
LU-1991	2	29793994	29793994	C	A	C	M	exonic	ALK	missense	NM_004304:p.W247C
LU-1991	2	33388025	33388025	G	T	G	K	exonic	LTBP1	missense	NM_206943:p.D1168Y
LU-1991	2	39850514	39850514	-	T	G	*/+T	exonic	THUMP2	FS_ins	NM_025264:p.T171fs
LU-1991	2	44055401	44055401	T	A	T	W	splicing	LRPPRC	missense	NM_133259:p.T289S
LU-1991	2	48545597	48545597	G	A	G	R	exonic	KLRAQ1	missense	NM_152994:p.A238T
LU-1991	2	48576422	48576422	A	T	A	W	ncRNA	KLRAQ1	NA	NA
LU-1991	2	61112324	61112324	A	G	A	R	exonic	PEX13	missense	NM_002618:p.Q120R
LU-1991	2	61501461	61501461	C	G	C	S	exonic	USP34	missense	NM_014709:p.E19Q
LU-1991	2	63136647	63136647	G	A	G	R	exonic	OTX1	missense	NM_014562:p.A253T
LU-1991	2	68219425	68219425	C	G	C	S	exonic	WDR92	missense	NM_138458:p.D196H
LU-1991	2	74687745	74687745	C	G	C	S	exonic	C2orf65	missense	NM_138804:p.K180N
LU-1991	2	105224759	105224759	C	A	C	M	exonic	GPR45	missense	NM_007227:p.N4K
LU-1991	2	112977039	112977039	C	T	C	Y	exonic	TTL	missense	NM_153712:p.H229Y
LU-1991	2	113133798	113133798	G	A	G	R	exonic	SLC20A1	missense	NM_005415:p.G532D
LU-1991	2	116227309	116227309	C	A	C	M	exonic	DPP10	missense	NM_001004360:p.T340K
LU-1991	2	116288975	116288975	C	A	C	M	exonic	DPP10	missense	NM_001004360:p.Q606K
LU-1991	2	162447186	162447186	C	A	C	M	exonic	SLC4A10	missense	NM_022058:p.L364I
LU-1991	2	163000262	163000262	G	T	G	K	exonic	KCNH7	missense	NM_033272:p.A549D
LU-1991	2	165729250	165729250	A	T	A	W	exonic	SCN3A	missense	NM_001081676:p.F167Y
LU-1991	2	167815498	167815498	G	T	G	K	exonic	XIRP2	missense	NM_152381:p.R3117L
LU-1991	2	185511592	185511592	C	A	C	M	exonic	ZNF804A	missense	NM_194250:p.P1075Q
LU-1991	2	190136556	190136556	G	T	G	K	splicing	SLC40A1	silent	NM_014585:p.I467I
LU-1991	2	191989110	191989110	G	C	G	S	exonic	MYO1B	missense	NM_001161819:p.D1062H
LU-1991	2	208197280	208197280	G	A	G	R	exonic	FAM119A	missense	NM_001127395:p.A22V
LU-1991	2	210350255	210350255	G	T	G	K	exonic	UNC80	missense	NM_182587:p.E109D
LU-1991	2	228594762	228594762	G	T	G	K	exonic	SPHKAP	missense	NM_001142644:p.D202E
LU-1991	2	230632291	230632291	T	A	T	W	exonic	SLC16A14	missense	NM_152527:p.I8F
LU-1991	2	23318618	23318618	C	A	C	M	exonic	CHRNA	missense	NM_005199:p.P501Q
LU-1991	3	25767600	25767600	C	A	C	M	exonic	NGLY1	missense	NM_001145295:p.L217F

LU-1991 3	38112387	38112387	G	A	G	R	exonic	DLEC1	missense	NM_007335;p.R706K
LU-1991 3	38238145	38238145	G	T	G	K	exonic	OXSR1	missense	NM_005109;p.G188V
LU-1991 3	39203099	39203099	G	T	G	K	exonic	XIRP1	missense	NM_001198621;p.P948T
LU-1991 3	43364226	43364226	G	A	G	R	exonic	SNRK	missense	NM_017719;p.E491K
LU-1991 3	43571774	43571774	C	A	C	M	splicing	ANO10	missense	NM_018075;p.Q556H
LU-1991 3	48483609	48483609	C	T	C	Y	exonic	TREX1	missense	NM_016381;p.T239I
LU-1991 3	69211988	69211988	C	A	C	M	exonic	UBA3	missense	NM_003968;p.K9N
LU-1991 3	109657390	109657390	G	T	G	K	exonic	MYH15	nonsense	NM_014981;p.C735X
LU-1991 3	117054125	117054125	G	C	G	S	exonic	LSAMP	missense	NM_002338;p.L182V
LU-1991 3	141605301	141605301	C	G	C	S	exonic	CLSTN2	missense	NM_022131;p.Q125E
LU-1991 3	167031445	167031445	C	T	C	Y	exonic	BCHE	missense	NM_000055;p.G24E
LU-1991 3	186735374	186735374	G	C	G	S	exonic	LIPH	missense	NM_139248;p.S97C
LU-1991 4	2099666	2099666	C	A	C	M	exonic	POLN	missense	NM_181808;p.D652Y
LU-1991 4	9307476	9307476	G	A	G	R	intergenic	NA	NA	NA
LU-1991 4	12947400	12947400	A	G	A	R	ncRNA	HSP90AB2P	NA	NA
LU-1991 4	20102491	20102491	C	A	C	M	exonic	SLIT2	nonsense	NM_004787;p.S262X
LU-1991 4	47807369	47807369	C	T	C	Y	exonic	TXK	missense	NM_003328;p.G130D
LU-1991 4	71382154	71382154	C	A	C	M	exonic	MUC7	missense	NM_001145007;p.N368K
LU-1991 4	116011556	116011556	C	A	C	M	splicing	NDST4	NA	NA
LU-1991 4	126631264	126631264	C	G	C	S	exonic	FAT4	missense	NM_024582;p.P4613A
LU-1991 4	129262756	129262756	G	T	G	K	exonic	LARP1B	missense	NM_178043;p.W496L
LU-1991 4	129262757	129262757	G	A	G	R	exonic	LARP1B	nonsense	NM_178043;p.W496X
LU-1991 4	142870498	142870498	G	T	G	K	exonic	IL15	missense	NM_172174;p.V97F
LU-1991 4	164658041	164658041	C	A	C	M	exonic	C4orf43	missense	NM_018352;p.P132T
LU-1991 5	19519245	19519245	C	A	C	M	exonic	CDH18	missense	NM_001167667;p.M565I
LU-1991 5	63292603	63292603	C	A	C	M	exonic	HTR1A	nonsense	NM_000524;p.E234X
LU-1991 5	75463346	75463346	C	A	C	M	exonic	SV2C	nonsense	NM_014979;p.Y5X
LU-1991 5	140148263	140148263	G	C	G	S	exonic	PCDHA1	missense	NM_018900;p.G735A
LU-1991 5	140162269	140162269	C	A	C	M	exonic	PCDHA3	missense	NM_018906;p.L435M
LU-1991 5	140168310	140168310	G	T	G	K	exonic	PCDHA4	missense	NM_018907;p.A452S
LU-1991 5	140209654	140209654	G	C	G	S	exonic	PCDHA9	missense	NM_031857;p.V464L
LU-1991 5	161256708	161256708	A	C	A	M	exonic	GABRA1	missense	NM_001127648;p.K358T
LU-1991 5	170278394	170278394	G	T	G	K	exonic	RANBP17	nonsense	NM_022897;p.G343X
LU-1991 5	176246670	176246670	C	A	C	M	exonic	HK3	missense	NM_002115;p.G599V
LU-1991 6	26216075	26216075	C	T	C	Y	exonic	HIST1H1T	missense	NM_005323;p.D76N
LU-1991 6	33397647	33397647	C	G	C	S	exonic	DAXX	missense	NM_001141969;p.D12H
LU-1991 6	38939692	38939692	T	A	T	W	exonic	DNAH8	missense	NM_001371;p.S1909T
LU-1991 6	55322870	55322870	T	A	T	W	exonic	GFRAL	missense	NM_207410;p.F113Y
LU-1991 6	64474055	64474055	C	T	C	Y	exonic	PHF3	missense	NM_015153;p.T1182M
LU-1991 6	85503281	85503281	C	G	C	S	exonic	TBX18	missense	NM_001080508;p.L555F
LU-1991 6	116863903	116863903	G	T	G	K	exonic	DSE	missense	NM_001080976;p.A527S
LU-1991 6	127649791	127649791	T	G	T	K	exonic	RNF146	missense	NM_030963;p.W113G
LU-1991 6	127941611	127941611	G	T	G	K	splicing	C6orf58	NA	NA
LU-1991 6	131263970	131263970	G	T	G	K	exonic	EPB41L2	missense	NM_001199389;p.R325S
LU-1991 6	160033761	160033761	G	T	G	K	exonic	SOD2	missense	NM_000636;p.H50N
LU-1991 7	20664717	20664717	G	A	G	R	exonic	ABCB5	missense	NM_001163993;p.A89T
LU-1991 7	27839084	27839084	G	C	G	S	exonic	JAZF1	missense	NM_175061;p.H198D
LU-1991 7	29932598	29932598	C	T	C	Y	exonic	SCRN1	missense	NM_001145514;p.D381N
LU-1991 7	100119673	100119673	C	G	C	S	exonic	GIGYF1	missense	NM_022574;p.G592R
LU-1991 7	102994403	102994403	C	T	C	Y	exonic	RELN	nonsense	NM_005045;p.W1543X
LU-1991 7	103596153	103596153	A	T	A	W	exonic	ORC5	missense	NM_181747;p.I294N
LU-1991 7	106311891	106311891	C	-	A	*/-C	exonic	PIK3CG	FS_del	NM_002649;p.T939fs
LU-1991 7	128283850	128283850	C	G	C	S	exonic	FLNC	missense	NM_001127487;p.Q2399E
LU-1991 7	142335346	142335346	G	C	G	S	exonic	TRPV5	missense	NM_019841;p.L290V
LU-1991 7	142720212	142720212	A	T	A	W	intergenic	NA	NA	NA
LU-1991 8	403021	403021	G	C	G	S	exonic	FBXO25	missense	NM_183421;p.L286F
LU-1991 8	15525059	15525059	C	A	C	M	exonic	TUSC3	missense	NM_178234;p.P80T
LU-1991 9	18918405	18918405	G	T	G	K	exonic	FAM154A	missense	NM_153707;p.P357H
LU-1991 9	66197087	66197087	C	G	C	S	intergenic	NA	NA	NA
LU-1991 9	89935585	89935585	C	G	C	S	exonic	FAM75C2	missense	NM_001166137;p.E729D
LU-1991 9	96102064	96102064	A	T	A	W	exonic	ZNF169	nonsense	NM_194320;p.R135X
LU-1991 9	103211532	103211532	G	A	G	R	exonic	ZNF189	missense	NM_003452;p.G554D
LU-1991 9	134196522	134196522	T	C	T	Y	exonic	SETX	missense	NM_015046;p.N325D
LU-1991 9	137811066	137811066	C	A	C	M	exonic	KCNT1	missense	NM_020822;p.P924T
LU-1991 9	137811067	137811067	C	A	C	M	exonic	KCNT1	missense	NM_020822;p.P924H
LU-1991 9	139261954	139261954	G	C	G	S	exonic	FAM166A	missense	NM_001001710;p.P12R
LU-1991 10	13291152	13291152	C	T	C	Y	intronic	MCM10	NA	NA
LU-1991 10	15160750	15160750	C	A	C	M	exonic	ACBD7	nonsense	NM_001039844;p.G47X
LU-1991 10	15726035	15726035	C	T	C	Y	splicing	ITGA8	missense	NM_003638;p.D467N
LU-1991 10	33514567	33514567	C	T	C	Y	exonic	NRP1	missense	NM_003873;p.C809Y
LU-1991 10	49985924	49985924	C	G	C	S	exonic	C10orf72	missense	NM_144984;p.V60L
LU-1991 10	76405173	76405173	A	T	A	W	exonic	MYST4	missense	NM_012330;p.S358C
LU-1991 10	82172228	82172228	G	A	G	R	exonic	C10orf58	missense	NM_032333;p.C85Y
LU-1991 10	134849851	134849851	T	A	T	W	exonic	KNDC1	missense	NM_152643;p.F337I
LU-1991 11	5818851	5818851	G	T	G	K	exonic	ORS2E6	missense	NM_001005167;p.P285T
LU-1991 11	8916121	8916121	C	G	C	S	exonic	ASCL3	missense	NM_020646;p.R55P
LU-1991 11	18912330	18912330	C	A	C	M	exonic	MRGPRX1	missense	NM_147199;p.G193V
LU-1991 11	57727622	57727622	G	C	G	S	exonic	OR1S2	nonsense	NM_001004459;p.S203X
LU-1991 11	57926725	57926725	G	C	G	S	exonic	OR5B3	missense	NM_001005469;p.A245G

LU-1991 11	60395024	60395024	G	T	G	K	exonic	ZP1	missense	NM_207341:p.R282I
LU-1991 11	65948171	65948171	C	A	C	M	exonic	NPAS4	missense	NM_178864:p.L412I
LU-1991 11	68460620	68460620	G	T	G	K	exonic	IGHMBP2	missense	NM_002180:p.G699V
LU-1991 11	87940653	87940653	C	A	C	M	exonic	GRM5	nonsense	NM_000842:p.E616X
LU-1991 11	87940654	87940654	C	A	C	M	exonic	GRM5	missense	NM_000842:p.R615S
LU-1991 11	131904164	131904164	C	A	C	M	splicing	OPCML	NA	NA
LU-1991 12	1810634	1810634	G	T	G	K	exonic	LRTM2	missense	NM_001163925:p.D114Y
LU-1991 12	4606164	4606164	C	A	C	M	exonic	AKAP3	missense	NM_006422:p.G722V
LU-1991 12	38963996	38963996	G	T	G	K	exonic	LRRK2	missense	NM_198578:p.G765V
LU-1991 12	38973634	38973634	G	T	G	K	exonic	LRRK2	missense	NM_198578:p.V904L
LU-1991 12	38984189	38984189	A	T	A	W	exonic	LRRK2	missense	NM_198578:p.N1255Y
LU-1991 12	40253811	40253811	T	C	T	Y	exonic	PDZRN4	missense	NM_013377:p.I730T
LU-1991 12	42462517	42462517	G	A	G	R	exonic	IRAK4	missense	NM_001114182:p.R361H
LU-1991 12	51063841	51063841	G	C	G	S	exonic	KRT84	missense	NM_033045:p.F185L
LU-1991 12	67931302	67931302	G	T	G	K	exonic	CPSF6	missense	NM_007007:p.D63Y
LU-1991 12	68042907	68042907	G	-	T	*/-G	exonic	YEATS4	FS_del	NM_006530:p.G42fs
LU-1991 12	75973987	75973987	C	G	C	S	exonic	E2F7	missense	NM_203394:p.E50Q
LU-1991 12	92559144	92559144	C	A	C	M	intergenic	NA	NA	NA
LU-1991 12	94431758	94431758	A	G	A	R	exonic	METAP2	missense	NM_006838:p.I462V
LU-1991 12	94790303	94790303	C	T	C	Y	exonic	CCDC38	missense	NM_182496:p.E449K
LU-1991 12	103991796	103991796	C	A	C	M	exonic	ALDH1L2	missense	NM_001034173:p.D56Y
LU-1991 12	105917604	105917604	G	A	G	R	exonic	CRY1	missense	NM_004075:p.A331V
LU-1991 12	119451285	119451285	G	T	G	K	exonic	COQ5	missense	NM_032314:p.R15S
LU-1991 12	122244906	122244906	C	T	C	Y	exonic	MPHOSPH9	missense	NM_022782:p.E589K
LU-1991 12	131120139	131120139	G	C	G	S	splicing	EP400	missense	NM_015409:p.Q3006H
LU-1991 13	41771905	41771905	A	G	R	K	exonic	AKAP11	missense	NM_016248:p.M341I
LU-1991 14	19833384	19833384	G	A	G	R	exonic	TTC5	missense	NM_138376:p.P329S
LU-1991 14	30712334	30712334	C	A	C	M	exonic	HECTD1	missense	NM_015382:p.G312V
LU-1991 14	46459051	46459051	G	A	G	R	exonic	MDGA2	missense	NM_001113498:p.R718C
LU-1991 14	50294857	50294857	T	G	T	K	exonic	NIN	missense	NM_182946:p.K881Q
LU-1991 14	52296167	52296167	T	G	T	K	exonic	STYX	missense	NM_001130701:p.V150G
LU-1991 14	91045710	91045710	G	A	G	R	exonic	SMEK1	missense	NM_032560:p.T12M
LU-1991 14	101586627	101586627	G	T	G	K	exonic	DYNC1H1	missense	NM_001376:p.G4639C
LU-1991 14	104680229	104680229	C	A	C	M	exonic	JAG2	missense	NM_002226:p.D1189Y
LU-1991 15	23476497	23476497	C	T	C	Y	exonic	ATP10A	missense	NM_024490:p.V1244M
LU-1991 15	40531226	40531226	C	A	C	M	exonic	ZFP106	missense	NM_022473:p.G156V
LU-1991 15	50396587	50396587	C	A	C	M	exonic	MYO5A	missense	NM_001142495:p.D1735Y
LU-1991 15	53763422	53763422	C	G	C	S	splicing	PRTG	NA	NA
LU-1991 15	56931363	56931363	A	C	A	M	exonic	FAM63B	missense	NM_001040450:p.K548N
LU-1991 15	73438537	73438537	G	A	G	R	exonic	MAN2C1	missense	NM_006715:p.S686F
LU-1991 15	75260398	75260398	T	C	T	Y	exonic	PEAK1	missense	NM_024776:p.Y309C
LU-1991 16	4599718	4599718	G	C	G	S	exonic	FAM100A	missense	NM_145253:p.P151A
LU-1991 16	20379016	20379016	A	T	A	W	exonic	ACSM2A	missense	NM_001010845:p.S27C
LU-1991 16	30424275	30424275	C	A	C	M	exonic	ITGAL	missense	NM_002209:p.S786Y
LU-1991 16	48675701	48675701	A	C	A	M	exonic	HEATR3	missense	NM_182922:p.K430Q
LU-1991 16	49733015	49733015	C	T	C	Y	exonic	SALL1	missense	NM_002968:p.V207M
LU-1991 16	79772362	79772362	G	C	G	S	exonic	PKD1L2	missense	NM_001076780:p.C671W
LU-1991 16	80689448	80689448	G	A	G	R	exonic	HSD17B2	missense	NM_002153:p.G357D
LU-1991 16	82786039	82786039	G	C	G	S	splicing	ADAD2	NA	NA
LU-1991 16	83073763	83073763	T	C	T	Y	exonic	KIAA1609	missense	NM_020947:p.H338R
LU-1991 16	85169937	85169937	C	A	C	M	exonic	FOXL1	missense	NM_005250:p.A36D
LU-1991 17	3142559	3142559	G	T	G	K	exonic	OR3A1	missense	NM_002550:p.A23E
LU-1991 17	7519192	7519192	T	G	T	K	exonic	TP53	missense	NM_001126117:p.T23P
LU-1991 17	10157324	10157324	C	A	C	M	exonic	MYH13	nonsense	NM_003802:p.E1353X
LU-1991 17	16267804	16267804	G	C	G	S	exonic	TRPV2	missense	NM_016113:p.E308Q
LU-1991 17	38090868	38090868	G	T	G	K	exonic	CNTNAP1	nonsense	NM_003632:p.E207X
LU-1991 17	38384953	38384953	C	A	C	M	exonic	AARSD1	nonsense	NM_001136042:p.E96X
LU-1991 17	70754442	70754442	T	C	T	Y	exonic	GGA3	missense	NM_138619:p.E24G
LU-1991 18	570847	570847	G	A	G	R	exonic	CETN1	missense	NM_004066:p.D147N
LU-1991 18	6954803	6954803	C	G	C	S	splicing	LAMA1	NA	NA
LU-1991 18	21058618	21058618	G	T	G	K	exonic	ZNF521	missense	NM_015461:p.L1088M
LU-1991 18	21061233	21061233	G	T	G	K	exonic	ZNF521	missense	NM_015461:p.S216Y
LU-1991 18	31171252	31171252	A	G	A	R	exonic	ZNF24	missense	NM_006965:p.L350P
LU-1991 18	45583177	45583177	C	T	C	Y	exonic	ACAA2	missense	NM_006111:p.G21R
LU-1991 18	65953409	65953409	A	G	A	R	exonic	RTTN	missense	NM_173630:p.M959T
LU-2349 1	175100160	175100160	G	C	G	S	exonic	ASTN1	missense	NM_004319:p.S1256R
LU-2349 2	33393721	33393721	A	G	A	R	exonic	LTBP1	missense	NM_206943:p.N1204S
LU-2349 2	165860691	165860691	A	T	A	W	exonic	SCN2A	nonsense	NM_021007:p.K38X
LU-2349 2	170782102	170782102	G	T	G	K	exonic	MYO3B	missense	NM_138995:p.R185L
LU-2349 2	219597054	219597054	G	T	G	K	exonic	CCDC108	missense	NM_194302:p.T841N
LU-2349 3	42274716	42274716	G	C	G	S	exonic	CCK	missense	NM_000729:p.R76G
LU-2349 3	132356651	132356651	G	T	G	K	exonic	NEK11	missense	NM_001146003:p.A320S
LU-2349 3	135567919	135567919	C	T	C	Y	exonic	AMOTL2	missense	NM_016201:p.S361N
LU-2349 3	143986285	143986285	G	T	G	K	exonic	TRPC1	missense	NM_003304:p.G303V
LU-2349 5	170327904	170327904	A	T	A	W	exonic	RANBP17	missense	NM_022897:p.E543V
LU-2349 6	121618981	121618981	T	C	T	Y	exonic	C6orf170	missense	NM_152730:p.Q628R
LU-2349 7	54787609	54787609	T	C	T	Y	splicing	SEC61G	NA	NA
LU-2349 7	81552054	81552054	C	A	C	M	exonic	CACNA2D1	missense	NM_000722:p.G209C
LU-2349 7	124298227	124298227	C	T	C	Y	exonic	POT1	missense	NM_015450:p.D77N

LU-2349	7	128202403	128202403	G	T	G	K	exonic	OPN1SW	missense	NM_001708:p.R132S
LU-2349	7	128280272	128280272	G	-	A	*/-G	exonic	FLNC	FS_del	NM_001458:c.6159_6159delG
LU-2349	9	130060622	130060622	T	G	T	K	exonic	GOLGA2	missense	NM_004486:p.E714A
LU-2349	10	115364589	115364589	T	A	T	W	splicing	NRAP	missense	NM_006175:p.D1027V
LU-2349	10	127833839	127833839	C	G	C	S	exonic	ADAM12	missense	NM_021641:p.E96Q
LU-2349	11	1575958	1575958	G	T	G	K	exonic	KRTAP5-2	silent	NM_001004325:p.S33S
LU-2349	11	65947914	65947914	T	A	T	W	exonic	NPAS4	nonsense	NM_178864:p.L326X
LU-2349	12	5024095	5024095	G	C	G	S	exonic	KCNA5	missense	NM_002234:p.G174A
LU-2349	12	55261887	55261887	G	T	G	K	exonic	RBMS2	missense	NM_002898:p.V246F
LU-2349	12	77122921	77122921	C	A	C	M	exonic	NAV3	missense	NM_014903:p.L2282M
LU-2349	14	46190581	46190581	C	A	C	M	exonic	RPL10L	missense	NM_080746:p.G37C
LU-2349	14	50546922	50546922	C	G	C	S	exonic	TRIM9	missense	NM_015163:p.R361P
LU-2349	16	56540768	56540768	C	A	C	M	exonic	CNGB1	nonsense	NM_001297:p.E371X
LU-2349	19	17337411	17337411	C	A	C	M	exonic	PLVAP	missense	NM_031310:p.R288L
LU-2349	19	56421026	56421026	A	G	A	R	exonic	CD33	missense	NM_001082618:p.T65A
LU-2349	20	801637	801637	G	A	G	R	exonic	ANGPT4	missense	NM_015985:p.A493V
LU-2349	20	2544813	2544813	A	C	A	M	exonic	TMC2	missense	NM_080751:p.N635H
LU-2349	20	6707411	6707411	G	T	G	K	exonic	BMP2	missense	NM_001200:p.R289L
LU-2349	22	35908638	35908638	T	A	T	W	exonic	C1QTNF6	missense	NM_031910:p.S125C
LU-2349	X	26068000	26068000	C	A	C	M	exonic	MAGEB18	missense	NM_173699:p.A326D
LU-2349	X	53287799	53287799	G	T	G	K	exonic	IQSEC2	missense	NM_015075:p.H764Q
LU-2349	X	55531590	55531590	G	T	G	K	exonic	USP51	missense	NM_201286:p.L170I
LU-2349	X	150874627	150874627	A	C	A	M	exonic	GABRE	missense	NM_004961:p.Y336D
Lu-2375	11	408922	408922	C	T	C	Y	exonic	ANO9	missense	NM_001012302:p.G668R
Lu-2375	M	10947	10947	-	C	A	*/+C	intergenic	NA	NA	NA
Lu-597	3	47136892	47136895	CTCT	-	A	*/-CTCT	exonic	SETD2	FS_del	NM_014159:c.4235_4238del
Lu-597	6	43856533	43856533	G	A	G	R	exonic	VEGFA	missense	NM_001171623:p.R170H
Lu-597	12	121946481	121946481	G	C	G	S	exonic	VPS37B	missense	NM_024667:p.L28V
Lu-597	20	33776439	33776439	A	T	A	W	exonic	RBM39	missense	NM_184234:p.C157S



**Supplementary Table 9.** Missense mutations predicted to affect protein function

sample	chr	pos	ref	var	aa_pos	aa_ref	aa_alt	gene_name	CCDSid	PolyPhen2_pred	SIFT_pred	Prophet	LRT_pred	MutationTaster_pred
12586	1	68677832	C	T	242	S	N	RPE65	CCDS643.1	C	D	D	D	D
12586	1	70291385	G	A	1362	R	Q	LRRC7	CCDS645.1	C	D	D	D	N
12586	1	90172413	G	T	400	V	F	LRRC8D	CCDS726.1	C	D	D	D	D
12586	1	156783775	G	T	249	H	N	OR6Y1	CCDS30899.1	C	D	D	D	N
12586	1	246636879	G	T	321	D	Y	OR2T1	CCDS31115.1	C	D	D	U	D
12586	2	37141282	C	A	599	G	C	HEATR5B	CCDS33181.1	C	D	D	D	D
12586	2	170079381	A	G	388	R	G	KBTBD10	CCDS2234.1	C	D	D	D	NA
12586	3	115553043	C	A	118	R	L	ZBTB20	CCDS2981.1	C	T	D	D	D
12586	4	47545094	A	G	860	F	S	NFXL1	CCDS3478.2	C	D	D	D	D
12586	5	13882800	G	C	2088	A	G	DNAH5	CCDS3882.1	C	D	D	D	D
12586	5	24571068	T	A	242	M	L	CDH10	CCDS3892.1	C	D	D	D	D
12586	5	37161125	G	A	1823	P	L	C5orf42	CCDS34146.1	C	D	D	D	N
12586	5	76206962	G	T	8	A	S	S100Z	CCDS43333.1	C	D	P	D	D
12586	6	54174938	C	A	354	P	H	C6orf142	CCDS4954.1	C	D	D	D	N
12586	6	70105948	C	G	1097	A	G	BAI3	CCDS4968.1	C	D	D	D	D
12586	6	97160532	G	T	123	W	L	FHL5	CCDS5035.1	C	D	D	D	D
12586	6	102372975	C	A	414	T	K	GRIK2	CCDS5048.1	C	D	D	D	D
12586	8	41673173	G	T	942	T	K	ANK1	CCDS6119.1	C	D	D	D	D
12586	8	80841501	C	A	91	A	S	HEY1	CCDS6225.1	C	D	D	D	D
12586	8	82522116	T	C	21	M	V	PMP2	CCDS6229.1	C	D	D	D	D
12586	8	113346981	C	A	3175	D	Y	CSMD3	CCDS6315.1	C	D	D	D	D
12586	9	92646131	A	G	44	S	G	SYK	CCDS6688.1	C	T	D	D	D
12586	10	15295965	C	A	543	R	L	FAM171A1	CCDS31154.1	C	D	D	D	D
12586	10	26495058	G	T	1019	C	F	MYO3A	CCDS7148.1	C	D	D	D	D
12586	10	100232503	G	A	498	T	I	HPSE2	CCDS7477.1	C	D	B	D	D
12586	10	102247416	C	G	663	C	S	SEC31B	CCDS7495.1	C	D	D	D	D
12586	11	22248457	G	T	641	R	L	ANO5	CCDS31444.1	C	T	D	D	D
12586	11	64253033	C	T	550	R	H	RASGRP2	CCDS31598.1	C	D	D	D	D
12586	11	64253034	G	T	550	R	S	RASGRP2	CCDS31598.1	C	D	D	D	D
12586	11	65374218	C	A	92	P	T	SNX32	CCDS8113.2	C	D	D	N	D
12586	11	75846878	G	A	83	M	I	C11orf30	CCDS8244.1	C	T	D	D	D
12586	11	107711791	G	T	2721	D	Y	ATM	CCDS31669.1	C	D	D	D	D
12586	12	7531663	T	A	570	S	C	CD163	CCDS8578.1	C	D	D	N	D
12586	12	25289552	C	A	12	G	C	KRAS	CCDS8702.1	C	D	B	D	D
12586	12	95575969	G	T	185	W	L	C12orf63	CCDS9062.1	C	D	D	D	N
12586	13	40415235	T	A	220	D	V	ELF1	CCDS9374.1	C	D	D	D	D
12586	14	51804820	G	T	180	G	C	PTGDR	CCDS9707.1	C	D	D	D	D

12586	14	85158014	C	G	135	L	V	FLRT2	CCDS9877.1	C	D	P	D	D
12586	15	46821518	C	T	1247	E	K	CEP152	CCDS42033.1	C	D	D	D	N
12586	16	21005814	T	G	912	K	Q	DNAH3	CCDS10594.1	C	T	D	D	D
12586	16	49343313	G	T	268	D	Y	CYLD	CCDS42164.1	C	D	D	D	D
12586	18	12018944	G	T	235	A	S	IMPA2	CCDS11855.1	C	D	B	D	D
12586	18	21866382	C	A	403	Q	H	SS18	CCDS32807.1	C	D	NA	D	D
12586	20	35097307	G	A	641	P	L	RBL1	CCDS13289.1	C	D	D	D	D
12586	20	48629202	G	T	265	D	Y	PTPN1	CCDS13430.1	C	D	D	D	D
12586	20	51305849	G	T	815	R	S	TSHZ2	CCDS33490.1	C	T	D	D	D
12586	20	55574055	C	T	553	T	M	PCK1	CCDS13460.1	C	D	D	D	D
12586	X	2955389	C	A	358	R	S	ARSH	CCDS35198.1	C	D	D	U	D
12586	X	10495154	C	A	145	C	F	MID1	CCDS14138.1	C	NA	D	D	D
12586	X	18930954	G	T	718	L	M	GPR64	CCDS14191.1	C	D	D	D	N
12586	X	24676989	G	T	969	A	S	POLA1	CCDS14214.1	C	D	P	D	D
12586	X	46917495	G	T	153	G	C	RBM10	CCDS14274.1	C	D	D	D	D
12586	X	78313413	C	A	85	P	T	GPR174	CCDS14443.1	C	D	D	D	N
12586	X	125126957	C	A	211	G	V	WDR40C	CCDS43991.1	C	D	D	N	D
12586	X	147862768	G	C	1116	D	H	AFF2	CCDS14684.1	C	D	D	D	D
12804	13	45475416	G	A	268	P	L	ZC3H13	CCDS9400.1	C	D	NA	D	D
12804	20	61546593	C	A	185	A	S	KCNQ2	CCDS13518.1	C	D	D	D	D
12804	X	153597687	G	T	62	L	I	GAB3	CCDS14760.1	C	D	D	D	D
12820	1	17227693	C	T	138	D	N	SDHB	CCDS176.1	C	D	D	D	D
12820	1	71285043	G	T	269	S	Y	PTGER3	CCDS652.1	C	D	D	D	NA
12820	1	103161526	G	T	1203	P	Q	COL11A1	CCDS778.1	C	D	NA	D	D
12820	2	234345709	A	T	453	D	V	UGT1A9	CCDS2505.1	C	D	D	D	D
12820	3	120106185	C	T	284	R	K	IGSF11	CCDS2983.1	C	T	D	D	D
12820	3	148611335	T	C	249	M	T	ZIC1	CCDS3136.1	C	D	D	D	D
12820	3	195888990	G	T	49	R	L	FAM43A	CCDS33923.1	C	D	D	D	D
12820	5	1087953	G	A	170	R	H	NKD2	CCDS3859.1	C	D	D	D	D
12820	5	37007856	C	T	275	P	L	NIPBL	CCDS3920.1	C	D	D	D	D
12820	7	81169946	C	G	692	V	L	HGF	CCDS5597.1	C	D	P	D	D
12820	7	95638731	T	C	407	I	V	SLC25A13	CCDS5645.1	C	D	B	D	D
12820	7	134773617	C	A	1	M	I	CNOT4	CCDS43650.1	C	D	D	D	A
12820	9	8508246	C	A	369	G	V	PTPRD	CCDS6472.1	C	D	D	D	D
12820	11	17390860	G	C	829	L	V	ABCC8	CCDS31437.1	C	D	D	D	P
12820	11	22340914	T	A	239	Y	N	SLC17A6	CCDS7856.1	C	T	D	D	D
12820	12	20925157	G	T	478	G	V	SLCO1B3	CCDS8684.1	C	D	D	D	N
12820	12	29601162	C	T	416	G	E	TMTC1	CCDS8718.1	C	D	D	D	D
12820	12	40786102	C	A	186	D	Y	GLT8D3	CCDS41771.1	C	D	D	D	D
12820	14	23494101	C	T	49	A	V	DHRS4	CCDS9605.1	C	D	NA	D	D
12820	16	82741448	G	T	118	G	C	LRRC50	CCDS10943.2	C	D	D	D	NA
12820	17	2213567	G	T	244	R	L	SGSM2	CCDS32526.1	C	D	D	D	D
12820	17	7519119	T	C	179	H	R	TP53	CCDS11118.1	C	D	D	D	D
12820	18	21060321	A	C	520	M	R	ZNF521	CCDS32806.1	C	T	D	D	D
12820	19	38955803	T	A	424	Y	N	CHST8	CCDS12433.1	C	D	D	D	N
12820	19	44590416	C	T	73	P	L	ZFP36	CCDS12534.1	C	D	D	N	D
12820	22	23228113	G	A	99	R	H	UPB1	CCDS13827.1	C	D	P	D	D

12820	22	49024298	C	A	240	D	Y	TUBGCP6	CCDS14087.1	C	D	D	D	D
12820	X	54337998	G	T	469	S	Y	WNK3	CCDS14357.1	C	D	D	D	N
12820	X	85954789	G	T	464	G	C	DACH2	CCDS14455.1	C	D	D	D	D
12820	X	110442549	G	T	416	P	T	DCX	CCDS14556.1	C	D	D	D	D
12924	1	33843582	C	G	2142	G	A	CSMD2	CCDS380.1	C	D	D	D	D
12924	1	36698961	C	G	102	E	Q	MRPS15	CCDS411.1	C	T	D	D	D
12924	1	39679531	G	C	4148	E	Q	MACF1	CCDS435.1	C	D	D	D	D
12924	1	67076055	C	A	503	V	F	WDR78	CCDS635.1	C	D	D	D	D
12924	1	103222316	C	A	841	G	V	COL11A1	CCDS778.1	C	D	NA	D	D
12924	1	201406901	T	A	282	N	Y	MYBPH	CCDS30975.1	C	D	D	D	D
12924	2	15365868	C	A	1574	A	S	NBAS	CCDS1685.1	C	D	D	D	D
12924	2	15437394	T	G	1125	S	R	NBAS	CCDS1685.1	C	T	D	D	D
12924	2	71045120	G	A	396	M	I	ATP6V1B1	CCDS1912.1	C	D	D	N	D
12924	2	172530142	C	A	116	P	Q	HAT1	CCDS2245.1	C	D	D	D	D
12924	2	182251148	G	A	229	P	S	NEUROD1	CCDS2283.1	C	T	D	D	D
12924	2	201172637	G	T	120	G	V	AOX1	CCDS33360.1	C	D	D	D	NA
12924	2	216001148	C	G	282	G	R	FN1	CCDS2399.1	C	D	D	N	D
12924	3	42702544	G	T	144	D	Y	KBTBD5	CCDS2703.1	C	D	D	D	D
12924	3	46374872	G	T	284	D	Y	FLJ78302	CCDS43078.1	C	D	D	N	D
12924	3	58343344	A	T	89	I	L	PXK	CCDS2889.1	C	D	P	D	D
12924	3	137528753	C	A	422	A	E	PCCB	CCDS3089.1	C	D	D	D	D
12924	3	198723629	C	G	189	R	P	BDH1	CCDS3328.1	C	D	D	D	D
12924	4	106578638	C	A	149	W	L	PPA2	CCDS3667.1	C	D	D	D	D
12924	4	126592756	G	T	3712	S	I	FAT4	CCDS3732.2	C	D	D	U	D
12924	4	164613809	C	G	176	L	F	TKTL2	CCDS3805.1	C	D	D	D	D
12924	5	152853684	G	C	29	G	A	GRIA1	CCDS4322.1	C	T	D	D	D
12924	5	161256710	G	T	359	D	Y	GABRA1	CCDS4357.1	C	D	B	D	D
12924	5	169466096	G	T	186	R	L	FOXI1	CCDS4372.1	C	D	D	D	D
12924	5	178977143	C	G	345	M	I	HNRNPH1	CCDS4446.1	C	D	D	D	D
12924	6	42345061	C	A	82	Q	H	TRERF1	CCDS4867.1	C	D	D	D	D
12924	6	70934808	C	A	841	P	T	COL19A1	CCDS4970.1	C	T	D	D	D
12924	6	94022361	T	C	763	N	S	EPHA7	CCDS5031.1	C	D	D	D	D
12924	6	132227718	T	C	319	Y	H	ENPP1	CCDS5150.1	C	T	D	D	D
12924	7	20749080	G	T	582	R	L	ABCB5	CCDS5371.1	C	D	D	D	D
12924	7	50564455	G	C	172	P	R	DDC	CCDS5511.1	C	D	D	D	D
12924	7	51062922	C	A	1122	G	V	COBL	CCDS34637.1	C	D	D	D	D
12924	7	91550779	G	C	2840	L	F	AKAP9	CCDS5622.1	C	D	D	N	D
12924	7	107429315	C	T	46	R	Q	LAMB1	CCDS5750.1	C	D	D	NA	D
12924	7	128886638	G	T	462	S	I	FAM40B	CCDS34752.1	C	D	D	D	D
12924	8	12996689	T	A	1159	E	V	DLC1	CCDS5989.1	C	D	D	D	D
12924	8	73104745	A	T	961	V	D	TRPA1	CCDS34908.1	C	NA	D	D	D
12924	8	107792181	G	T	506	V	L	OXR1	CCDS6304.1	C	D	D	D	D
12924	8	111054016	C	A	213	G	V	KCNV1	CCDS6314.1	C	D	P	D	D
12924	10	6546296	T	A	477	D	V	PRKCQ	CCDS7079.1	C	D	P	D	D
12924	10	69572807	C	A	336	T	K	MYPN	CCDS7275.1	C	D	D	D	D
12924	10	70695406	C	A	811	T	K	HKDC1	CCDS7288.1	C	D	D	D	D
12924	10	87474302	C	G	549	E	Q	GRID1	CCDS31236.1	C	T	D	D	D

12924	11	4747630	G	T	32	P	T	OR51F1	CCDS31359.1	C	D	D	D	N
12924	11	5037138	C	T	99	C	Y	OR52E2	CCDS31371.1	C	D	D	D	D
12924	11	36379333	C	T	29	S	F	FLJ14213	CCDS31463.1	C	D	D	D	D
12924	11	65123444	G	T	735	R	S	MAP3K11	CCDS8107.1	C	D	P	D	D
12924	11	75741084	T	A	253	E	V	PRKRIR	CCDS8243.1	C	D	D	D	D
12924	11	88222759	G	C	292	R	G	GRM5	CCDS8283.1	C	D	D	D	D
12924	11	88551511	A	C	248	T	P	TYR	CCDS8284.1	C	D	D	D	D
12924	11	92354351	G	T	105	G	V	MTNR1B	CCDS8290.1	C	D	D	D	D
12924	12	10133019	A	T	62	L	Q	CLEC1A	CCDS8612.1	C	D	D	D	D
12924	12	15631135	C	A	1070	T	N	PTPRO	CCDS8674.1	C	D	D	D	D
12924	12	38954937	G	T	606	G	C	LRRK2	CCDS31774.1	C	D	D	D	D
12924	12	50570772	T	A	259	Y	N	ANKRD33	CCDS8815.1	C	D	NA	D	D
12924	12	70316946	C	A	629	R	L	ZFC3H1	CCDS41813.1	C	NA	D	D	D
12924	12	81775077	G	A	81	G	R	TMTC2	CCDS9025.1	C	T	D	D	D
12924	12	99275387	G	T	29	L	F	SLC17A8	CCDS9077.1	C	D	D	N	D
12924	12	109652806	T	C	110	Y	C	PPP1CC	CCDS9150.1	C	D	D	D	D
12924	13	25049222	G	A	576	M	I	ATP8A2	CCDS41873.1	C	D	D	D	D
12924	13	34947750	A	C	176	C	G	MAB21L1	CCDS9353.1	C	D	D	D	D
12924	13	38348391	G	T	2806	D	Y	FREM2	CCDS31960.1	C	D	D	D	D
12924	13	69212669	G	T	554	P	T	KLHL1	CCDS9445.1	C	T	D	D	D
12924	13	100512332	G	A	1582	R	C	NALCN	CCDS9498.1	C	D	D	D	D
12924	14	22956241	G	A	1494	H	Y	MYH7	CCDS9601.1	C	D	D	NA	D
12924	14	23915059	G	C	656	K	N	NFATC4	CCDS9629.1	C	D	B	D	D
12924	14	50786021	G	T	192	G	V	TMX1	CCDS41953.1	C	D	D	D	D
12924	14	69314997	C	T	250	C	Y	SLC10A1	CCDS9797.1	C	T	D	D	D
12924	14	93113962	G	T	568	G	C	KIAA1409	CCDS9911.2	C	T	D	D	D
12924	14	95883411	C	A	61	E	D	ATG2B	CCDS9944.2	C	D	D	U	D
12924	15	23498271	C	G	882	G	A	ATP10A	CCDS32178.1	C	NA	D	D	D
12924	15	45840900	C	G	143	P	A	SEMA6D	CCDS32224.1	C	D	D	D	D
12924	15	68766961	C	A	192	D	Y	UACA	CCDS10235.1	C	D	D	N	D
12924	15	77542569	C	G	802	L	V	KIAA1024	CCDS32306.1	C	T	D	D	D
12924	16	45175061	C	T	521	D	N	SHCBP1	CCDS10720.1	C	D	P	D	D
12924	16	63564319	G	T	460	A	E	CDH11	CCDS10803.1	C	D	P	D	D
12924	16	70699899	G	T	1049	K	N	DHX38	CCDS10907.1	C	T	D	D	D
12924	16	70699900	G	T	1050	D	Y	DHX38	CCDS10907.1	C	D	D	D	D
12924	17	69817009	G	T	412	D	Y	DNAI2	CCDS11697.1	C	D	D	D	D
12924	18	7070396	C	T	41	C	Y	LAMA1	CCDS32787.1	C	D	D	D	D
12924	18	30652190	C	G	258	C	W	DTNA	CCDS11908.1	C	D	D	D	D
12924	19	3930985	C	G	476	D	H	EEF2	CCDS12117.1	C	D	D	D	D
12924	19	10471422	G	C	96	H	Q	KEAP1	CCDS12239.1	C	D	D	D	D
12924	19	12619281	G	T	932	S	R	MAN2B1	CCDS32919.1	C	D	D	D	D
12924	19	18761034	G	T	155	P	T	COMP	CCDS12385.1	C	D	D	U	D
12924	19	19232687	C	T	140	R	H	HAPLN4	CCDS12398.1	C	T	D	D	D
12924	20	2359613	T	A	636	V	E	TGM6	CCDS13025.1	C	D	D	N	D
12924	20	47297294	C	T	1892	E	K	ZNF1	CCDS13417.1	C	D	D	D	D
12924	20	51305004	G	T	534	G	W	TSHZ2	CCDS33490.1	C	D	D	D	D
12924	21	32960303	C	G	656	D	H	SYNJ1	CCDS33539.1	C	D	D	D	D

12924	21	44212356	C	A	94	L	I	AGPAT3	CCDS13703.1	C	D	P	D	D
12924	22	15452999	G	T	148	P	T	CCT8L2	CCDS13738.1	C	D	D	U	D
12924	22	39079039	G	T	125	R	I	ADSL	CCDS14001.1	C	D	D	D	D
12924	X	46954012	A	T	662	N	I	UBA1	CCDS14275.1	C	T	D	D	D
12924	X	48535784	C	A	237	Q	K	GATA1	CCDS14305.1	C	T	D	D	D
12924	X	48535785	A	G	237	Q	R	GATA1	CCDS14305.1	C	T	D	D	D
12924	X	83258801	C	G	291	G	A	RPS6KA6	CCDS14451.1	C	T	D	D	D
12924	X	129346408	C	T	232	G	E	GPR119	CCDS14625.1	C	D	D	D	D
13280	1	31210266	C	A	722	S	I	PUM1	CCDS338.1	C	D	D	D	D
13280	1	35142875	G	T	233	H	N	DLGAP3	CCDS30670.1	C	T	D	D	D
13280	1	71645761	A	T	341	S	T	NEGR1	CCDS661.1	C	T	D	D	D
13280	1	153280704	C	T	247	R	C	DCST1	CCDS1083.1	C	D	D	D	D
13280	1	178507237	G	A	184	R	Q	LHX4	CCDS1338.1	C	D	D	D	D
13280	1	214917269	G	A	59	P	S	ESRRG	CCDS1517.1	C	D	D	D	D
13280	2	39115934	C	G	333	E	Q	SOS1	CCDS1802.1	C	T	D	D	D
13280	2	64175776	T	C	274	E	G	PELI1	CCDS1876.1	C	T	D	D	D
13280	2	105258550	G	C	522	R	G	TGFBRAP1	CCDS2067.1	C	T	D	D	D
13280	3	137452053	G	A	49	G	E	PCCB	CCDS3089.1	C	D	D	D	D
13280	3	139598894	C	T	78	R	W	MRAS	CCDS3100.1	C	D	D	D	D
13280	4	39085349	G	A	129	D	N	KLB	CCDS3451.1	C	T	D	D	D
13280	4	175834929	C	A	268	V	F	GLRA3	CCDS3822.1	C	D	D	D	D
13280	4	189161599	G	T	215	R	L	ZFP42	CCDS3849.1	C	D	D	D	D
13280	5	14440669	C	G	1231	F	L	TRIO	CCDS3883.1	C	D	D	D	D
13280	5	37373686	C	T	446	M	I	NUP155	CCDS3921.1	C	T	D	D	D
13280	5	37373739	C	T	429	D	N	NUP155	CCDS3921.1	C	D	D	D	D
13280	5	121215873	G	T	106	V	L	FTMT	CCDS4128.1	C	D	D	N	D
13280	6	105836362	G	A	597	T	I	PREP	CCDS5053.1	C	D	D	D	D
13280	7	75797441	G	T	45	L	M	YWHAG	CCDS5584.1	C	D	P	D	D
13280	7	151566799	G	A	860	P	S	MLL3	CCDS5931.1	C	D	D	D	D
13280	7	151566804	C	A	858	W	L	MLL3	CCDS5931.1	C	D	D	D	D
13280	8	75389915	C	A	292	G	V	JPH1	CCDS6217.1	C	D	D	D	D
13280	8	124264458	G	A	61	D	N	FAM83A	CCDS6339.1	C	T	D	D	D
13280	9	89462824	C	T	629	L	F	DAPK1	CCDS43842.1	C	D	D	D	D
13280	10	3145640	G	T	434	R	L	PFKP	CCDS7059.1	C	D	D	D	D
13280	10	45227665	G	C	151	G	A	ALOX5	CCDS7212.1	C	D	P	D	D
13280	11	14471812	T	G	148	H	P	COPB1	CCDS7815.1	C	D	D	D	D
13280	11	33265498	C	G	321	A	G	HIPK3	CCDS7884.1	C	D	D	D	D
13280	11	57728188	C	A	14	M	I	OR1S2	CCDS31545.1	C	D	D	D	N
13280	11	57728189	A	T	14	M	K	OR1S2	CCDS31545.1	C	D	D	D	N
13280	12	88521712	C	G	919	R	T	ATP2B1	CCDS9035.1	C	D	D	D	N
13280	12	121569346	G	A	72	R	C	RSRC2	CCDS9234.1	C	D	NA	D	D
13280	13	38495234	G	A	200	P	S	C13orf23	CCDS9368.2	C	D	D	NA	D
13280	15	27796255	C	T	1352	E	K	TJP1	CCDS42007.1	C	D	D	D	D
13280	15	50495705	C	A	181	A	S	MYO5A	CCDS42037.1	C	D	P	D	D
13280	15	56072211	A	T	261	F	Y	ALDH1A2	CCDS10163.1	C	D	D	D	D
13280	15	67122118	C	G	504	F	L	NOX5	CCDS32276.1	C	NA	D	D	D
13280	15	71676430	A	G	142	I	T	NPTN	CCDS10249.1	C	D	P	D	D

13280	17	53407079	C	A	440	M	I	VEZF1	CCDS32687.1	C	D	NA	D	D
13280	17	71264738	G	A	1725	G	R	ITGB4	CCDS11727.1	C	D	D	D	D
13280	17	71459246	C	G	318	E	Q	ACOX1	CCDS11734.1	C	D	D	D	D
13280	19	3604520	C	T	230	G	D	PIP5K1C	CCDS32872.1	C	D	P	D	D
13280	19	53525454	G	A	136	G	E	EMP3	CCDS12715.1	C	D	D	D	D
13280	20	33335408	C	A	60	G	W	EIF6	CCDS13249.1	C	D	D	D	D
13280	20	36073739	C	G	632	E	Q	KIAA0406	CCDS13300.1	C	D	D	D	D
13280	X	23321754	C	G	733	S	C	PTCHD1	CCDS35215.2	C	D	D	D	D
13280	X	46836452	G	T	248	C	F	RGN	CCDS14272.1	C	D	D	D	D
13280	X	71789183	G	T	394	P	H	PHKA1	CCDS14421.1	C	D	P	D	D
13280	X	117584044	T	G	248	Y	D	DOCK11	CCDS35373.1	C	T	D	D	D
13280	X	117584105	A	T	268	K	I	DOCK11	CCDS35373.1	C	D	P	D	D
13394	1	33962809	C	A	887	A	S	CSMD2	CCDS380.1	C	T	D	D	D
13394	1	159309233	C	T	459	E	K	PVRL4	CCDS1216.1	C	D	D	D	N
13394	1	196163523	G	T	305	G	C	LHX9	CCDS1393.1	C	D	D	D	D
13394	1	202670253	T	C	1208	H	R	PIK3C2B	CCDS1446.1	C	D	D	D	D
13394	3	10836397	G	T	131	G	V	SLC6A11	CCDS2602.1	C	D	P	D	D
13394	3	66532150	A	G	389	L	P	LRIG1	CCDS33783.1	C	D	D	D	D
13394	3	99592638	G	C	147	G	R	OR5K3	CCDS33803.1	C	D	D	N	D
13394	4	125811277	G	T	869	Q	K	ANKRD50	CCDS34060.1	C	T	D	D	D
13394	6	3977676	C	T	309	S	F	PRPF4B	CCDS4488.1	C	D	P	D	D
13394	6	112496248	T	C	264	L	P	WISP3	CCDS5097.1	C	D	D	D	D
13394	7	34061306	A	G	265	T	A	BMPER	CCDS5442.1	C	D	D	D	D
13394	8	89137533	C	A	438	G	C	MMP16	CCDS6246.1	C	D	P	D	D
13394	10	50526646	C	A	457	L	M	CHAT	CCDS7232.1	C	D	P	D	D
13394	10	89675267	A	G	61	H	R	PTEN	CCDS31238.1	C	D	D	D	D
13394	12	38043241	G	C	315	S	R	KIF21A	CCDS31773.1	C	D	B	D	D
13394	15	71963581	G	C	103	K	N	TBC1D21	CCDS10252.1	C	T	D	D	D
13394	15	83207845	G	T	1692	R	L	ALPK3	CCDS10333.1	C	D	D	D	D
13394	16	80590705	G	C	232	H	D	SDR42E1	CCDS42205.1	C	T	D	D	D
13394	22	37554250	C	T	280	E	K	NPTXR	CCDS33647.1	C	D	P	D	D
13542	1	57383576	C	A	61	C	F	DAB1	CCDS607.1	C	D	D	D	D
13542	1	70030416	G	C	98	D	H	LRRC7	CCDS645.1	C	D	D	D	D
13542	2	86622901	C	G	31	D	H	VPS24	CCDS33236.1	C	D	D	D	NA
13542	2	168732055	C	A	144	G	C	STK39	CCDS42770.1	C	D	D	D	D
13542	3	42704789	A	G	435	Y	C	KBTBD5	CCDS2703.1	C	D	D	N	D
13542	4	985294	G	A	178	E	K	IDUA	CCDS3343.1	C	D	D	D	D
13542	4	985327	G	C	189	D	H	IDUA	CCDS3343.1	C	D	D	D	D
13542	5	159613198	C	A	358	R	L	CCNJL	CCDS4350.2	C	D	D	N	D
13542	6	31936332	C	A	221	G	W	NEU1	CCDS4723.1	C	D	D	D	D
13542	6	33516680	C	T	610	L	F	SYNGAP1	CCDS34434.1	C	D	D	D	D
13542	6	97160504	C	G	114	R	G	FHL5	CCDS5035.1	C	D	D	D	D
13542	7	143288843	C	A	283	P	T	OR2F1	CCDS5887.1	C	NA	D	D	D
13542	8	87752363	G	A	140	R	C	CNGB3	CCDS6244.1	C	D	D	N	D
13542	8	105430329	A	T	125	M	L	TM7SF4	CCDS6301.1	C	D	D	D	N
13542	8	113767075	C	A	740	G	W	CSMD3	CCDS6315.1	C	D	D	D	D
13542	8	142223524	C	G	160	P	R	DENND3	CCDS34947.1	C	T	D	D	D

13542	9	71931050	G	A	267	D	N	MAMDC2	CCDS6631.1	C	T	D	D	D
13542	9	83392541	C	G	618	G	R	TLE1	CCDS6661.1	C	D	D	D	D
13542	11	5418743	T	C	193	D	G	OR51I1	CCDS31382.1	C	D	D	D	N
13542	11	59028208	T	A	195	L	H	OR4D11	CCDS31563.1	C	D	P	D	D
13542	11	105294748	A	G	457	H	R	GRIA4	CCDS8333.1	C	T	D	D	D
13542	12	48550649	G	T	286	P	T	FAIM2	CCDS8791.1	C	D	D	D	D
13542	12	51171213	C	T	256	E	K	KRT6A	CCDS41786.1	C	D	D	D	D
13542	12	131860882	A	T	1414	L	Q	GOLGA3	CCDS9281.1	C	D	D	D	D
13542	17	55898480	T	C	209	Y	C	APPBP2	CCDS32699.1	C	D	B	D	D
13542	X	153247933	G	T	389	P	T	FLNA	CCDS44021.1	C	D	D	D	D
13681	1	62485813	C	A	934	M	I	KANK4	CCDS620.1	C	D	D	D	D
13681	1	100700908	G	A	241	G	S	CDC14A	CCDS769.1	C	D	B	D	D
13681	1	100700909	G	T	241	G	V	CDC14A	CCDS769.1	C	D	P	D	D
13681	1	154372508	C	T	377	R	C	LMNA	CCDS1129.1	C	D	D	D	D
13681	2	141176267	C	T	2072	G	E	LRP1B	CCDS2182.1	C	D	D	U	D
13681	3	4998105	T	C	96	V	A	BHLHE40	CCDS2565.1	C	D	D	D	D
13681	4	134303714	G	T	977	G	V	PCDH10	CCDS34063.1	C	D	D	N	D
13681	5	158182846	T	C	232	M	V	EBF1	CCDS4343.1	C	D	D	D	D
13681	9	79175162	G	T	2919	G	C	VPS13A	CCDS6655.1	C	D	D	D	D
13681	11	21207543	C	A	506	P	T	NELL1	CCDS7855.1	C	D	D	D	D
13681	11	85074415	A	G	136	M	T	CCDC89	CCDS8270.1	C	D	D	D	N
13681	12	25289552	C	A	12	G	C	KRAS	CCDS8702.1	C	D	B	D	D
13681	12	51452881	C	A	309	D	Y	KRT76	CCDS8838.1	C	D	D	N	D
13681	12	108159425	A	T	1507	N	Y	ACACB	CCDS31898.1	C	D	D	D	D
13681	19	10463584	C	A	332	G	C	KEAP1	CCDS12239.1	C	D	D	D	D
13681	19	41419571	G	T	130	C	F	ZNF146	CCDS12492.1	C	D	D	D	D
13681	22	22890510	A	T	1630	Q	L	CABIN1	CCDS13823.1	C	D	D	D	D
13681	X	47315314	T	G	549	C	G	ARAF	CCDS35232.1	C	D	D	D	D
13681	X	117698648	T	C	1879	I	T	DOCK11	CCDS35373.1	C	D	B	D	D
13681	X	149390076	G	T	525	G	W	MAMLD1	CCDS14693.2	C	D	D	N	D
13681	X	149663569	C	A	510	Q	K	MTMR1	CCDS14695.1	C	D	D	D	D
13681	X	153597761	C	A	37	R	L	GAB3	CCDS14760.1	C	D	D	D	D
15145	1	8606966	T	A	129	D	V	RERE	CCDS95.1	C	D	D	NA	D
15145	2	44282483	G	T	214	G	V	PPM1B	CCDS1816.1	C	D	P	D	D
15145	3	39144894	C	T	539	H	Y	TTC21A	CCDS43068.1	C	NA	D	D	D
15145	3	88288137	G	T	216	D	Y	C3orf38	CCDS2921.1	C	D	D	D	D
15145	3	89563128	G	T	759	V	L	EPHA3	CCDS2922.1	C	D	D	D	D
15145	3	113187806	A	T	111	D	V	ABHD10	CCDS2963.1	C	D	D	D	D
15145	6	151334791	G	C	677	V	L	MTHFD1L	CCDS5228.1	C	D	P	D	D
15145	7	31344768	G	C	214	P	A	NEUROD6	CCDS5434.1	C	T	D	D	D
15145	8	113726543	G	T	1094	T	K	CSMD3	CCDS6315.1	C	T	D	D	D
15145	9	103356132	A	T	648	D	V	RNF20	CCDS35084.1	C	D	D	D	D
15145	12	6529236	G	A	340	L	F	IFFO1	CCDS8550.1	C	D	D	D	D
15145	13	109890146	G	T	308	G	C	COL4A2	CCDS41907.1	C	D	NA	D	D
15145	22	27958281	G	A	238	G	E	EMID1	CCDS33630.1	C	NA	D	D	D
15145	X	49029868	A	C	591	E	A	PPP1R3F	CCDS35254.1	C	D	D	D	N
15145	X	65325018	C	A	240	H	N	HEPH	CCDS14384.1	C	D	D	D	N

15145	X	152639620	A	G	32	W	R	BCAP31	CCDS14727.1	C	D	D	D	D
15145	X	152658777	A	G	509	N	S	ABCD1	CCDS14728.1	C	D	D	D	D
15822	2	172358391	G	C	480	L	V	SLC25A12	CCDS33327.1	C	D	P	D	D
15822	17	7623316	A	C	1858	N	H	DNAH2	CCDS32551.1	C	D	D	D	D
15858	1	202670334	C	A	1181	C	F	PIK3C2B	CCDS1446.1	C	D	D	D	D
15858	2	71724639	G	T	1483	A	S	DYSF	CCDS1918.1	C	T	D	D	D
15858	3	141764424	G	T	765	R	L	CLSTN2	CCDS3112.1	C	D	D	D	D
15858	3	187820392	T	A	243	V	D	AHSG	CCDS3278.1	C	D	D	N	D
15858	12	37333973	T	G	558	H	P	CPNE8	CCDS8733.1	C	T	D	D	D
15858	12	48635477	C	A	212	A	D	AQP2	CCDS8792.1	C	D	D	D	D
15858	14	75702821	A	T	242	Q	L	C14orf118	CCDS9848.1	C	D	D	D	N
15858	14	95002088	G	T	187	P	H	C14orf49	CCDS9935.1	C	D	D	N	D
15858	20	51305578	C	A	725	T	K	TSHZ2	CCDS33490.1	C	D	P	D	D
16246	1	11172359	T	A	46	C	S	ANGPTL7	CCDS128.1	C	T	D	D	D
16246	1	20121760	T	C	39	Y	C	PLA2G2E	CCDS200.1	C	D	D	D	D
16246	1	114325516	G	T	275	D	Y	OLFML3	CCDS870.1	C	D	D	D	D
16246	1	152380601	C	A	166	G	W	NUP210L	CCDS41399.1	C	D	D	D	D
16246	1	161012090	G	T	627	K	N	DDR2	CCDS1241.1	C	D	D	D	D
16246	1	161383898	G	T	135	T	N	RGS5	CCDS1244.1	C	D	D	D	D
16246	1	164306292	A	T	199	V	E	FAM78B	CCDS30931.1	C	D	P	D	D
16246	1	213858926	G	C	546	R	S	KCTD3	CCDS1515.1	C	D	D	D	D
16246	1	238138096	A	T	241	Y	F	CHRM3	CCDS1616.1	C	D	D	D	D
16246	3	1418203	A	T	931	N	Y	CNTN6	CCDS2557.1	C	D	D	D	D
16246	3	12831847	G	T	312	R	L	CAND2	CCDS43053.1	C	D	D	N	D
16246	3	106953126	C	A	198	R	I	CBLB	CCDS2948.1	C	D	D	D	D
16246	3	187878205	C	T	473	P	S	HRG	CCDS3280.1	C	D	D	D	N
16246	4	123570238	C	A	542	S	Y	ADAD1	CCDS34058.1	C	T	D	D	D
16246	4	155726563	C	A	490	D	Y	FGA	CCDS3787.1	C	D	D	N	D
16246	4	177308239	G	T	724	R	I	WDR17	CCDS3825.1	C	D	P	D	D
16246	5	31352193	G	T	504	Q	H	CDH6	CCDS3894.1	C	D	D	D	NA
16246	5	33719744	A	T	270	Y	N	ADAMTS12	CCDS34140.1	C	D	D	D	N
16246	5	71526425	A	G	496	Y	C	MAP1B	CCDS4012.1	C	T	D	D	D
16246	5	114888617	T	A	381	S	C	FEM1C	CCDS4118.1	C	D	D	D	D
16246	5	140328836	G	T	767	R	S	PCDHAC2	CCDS4242.1	C	T	D	D	D
16246	6	36149470	C	G	148	H	D	MAPK14	CCDS4815.1	C	D	D	D	D
16246	7	81177454	C	G	496	V	L	HGF	CCDS5597.1	C	D	P	D	D
16246	7	92663108	A	G	403	V	A	HEPACAM2	CCDS5629.1	C	D	D	D	D
16246	8	22221497	G	T	551	R	L	PIWIL2	CCDS6029.1	C	T	D	D	D
16246	9	105925235	G	A	720	E	K	SMC2	CCDS35086.1	C	D	P	D	D
16246	9	120970102	A	T	456	L	Q	DBC1	CCDS6822.1	C	D	B	D	D
16246	10	55368593	C	A	1121	V	F	PCDH15	CCDS7248.1	C	D	D	NA	D
16246	10	62322690	C	A	122	W	C	RHOBTB1	CCDS7261.1	C	D	D	D	D
16246	10	82321273	G	T	152	A	S	SH2D4B	CCDS7370.1	C	T	D	D	D
16246	10	96084464	A	G	731	S	P	NOC3L	CCDS7433.1	C	D	B	D	D
16246	11	22354755	G	T	458	M	I	SLC17A6	CCDS7856.1	C	T	D	D	D
16246	11	55175707	C	A	251	P	H	OR4S2	CCDS31505.1	C	D	D	D	N
16246	11	55814264	A	T	284	L	Q	OR8H1	CCDS31526.1	C	D	D	D	N



16246	11	61915584	G	T	209	A	S	ASRGL1	CCDS8019.1	C	D	D	D	D
16246	12	21856355	T	A	1369	K	I	ABCC9	CCDS8693.1	C	D	P	D	D
16246	12	65074318	C	A	637	G	V	GRIP1	CCDS41807.1	C	D	D	D	D
16246	12	108714849	C	G	605	M	I	TRPV4	CCDS9134.1	C	D	D	D	D
16246	12	119076079	G	T	1240	A	D	GCN1L1	CCDS41847.1	C	NA	D	D	D
16246	13	42832012	C	A	188	M	I	ENOX1	CCDS9389.1	C	T	D	D	D
16246	13	52317664	G	C	912	F	L	PCDH8	CCDS9438.1	C	T	D	D	D
16246	13	57196798	C	A	950	S	Y	PCDH17	CCDS31986.1	C	D	D	D	N
16246	13	111770173	G	C	67	R	P	SOX1	CCDS9523.1	C	D	D	U	D
16246	13	113336326	G	T	199	A	S	TFDP1	CCDS9538.1	C	T	D	D	D
16246	14	62958477	C	A	148	W	L	PPP2R5E	CCDS9758.1	C	D	D	D	D
16246	14	63533554	T	C	1026	I	T	SYNE2	CCDS9761.2	C	D	D	N	D
16246	14	88053316	G	A	75	R	C	PTPN21	CCDS9884.1	C	T	D	D	D
16246	14	93149139	G	T	1156	R	L	KIAA1409	CCDS9911.2	C	D	D	D	D
16246	14	104810121	G	A	141	R	C	BRF1	CCDS10001.1	C	D	D	D	D
16246	15	41608887	C	T	2642	R	W	MAP1A	CCDS42031.1	C	D	D	NA	D
16246	15	48337979	G	T	78	H	N	HDC	CCDS10134.1	C	T	D	D	D
16246	15	98620146	C	A	269	Q	H	ADAMTS17	CCDS10383.1	C	T	D	D	D
16246	16	63539408	C	G	664	D	H	CDH11	CCDS10803.1	C	D	D	D	D
16246	16	82681999	T	A	338	N	I	MBTPS1	CCDS10941.1	C	D	D	D	D
16246	16	84370919	T	A	177	S	C	COX4NB	CCDS10954.1	C	D	D	D	D
16246	17	52689481	G	T	29	S	I	MSI2	CCDS11596.1	C	D	D	U	D
16246	18	62362396	C	A	336	V	F	CDH19	CCDS11994.1	C	D	D	D	N
16246	19	2071963	G	A	460	S	F	AP3D1	CCDS42459.1	C	D	P	D	D
16246	20	13788008	G	T	573	T	K	SEL1L2	CCDS42852.1	C	T	D	D	D
16246	20	57032325	C	G	150	L	V	TUBB1	CCDS13475.1	C	D	P	D	D
16246	X	22042611	G	C	430	D	H	PHEX	CCDS14204.1	C	D	D	D	D
16246	X	31406308	A	T	465	W	R	DMD	CCDS14228.1	C	D	D	U	D
16246	X	78504837	G	T	150	T	N	ITM2A	CCDS14444.1	C	D	D	D	D
16461	1	23641615	C	A	184	R	I	ASAP3	CCDS235.1	C	D	D	D	D
16461	1	33771372	C	A	3202	G	W	CSMD2	CCDS380.1	C	D	D	D	D
16461	1	44194878	T	C	341	M	T	IPO13	CCDS503.1	C	D	D	D	D
16461	1	65006966	T	A	97	C	S	RAVER2	CCDS41345.1	C	D	D	D	D
16461	1	78181025	G	C	651	E	Q	NEXN	CCDS41351.1	C	D	D	D	D
16461	1	84420489	G	C	43	D	H	PRKACB	CCDS691.1	C	D	B	D	D
16461	1	148187543	T	A	397	K	M	OTUD7B	CCDS41389.1	C	D	B	D	D
16461	1	149662617	C	G	520	D	H	POGZ	CCDS997.1	C	D	D	D	D
16461	1	167750274	G	T	2192	F	L	F5	CCDS1281.1	C	T	D	D	D
16461	1	175265395	C	A	373	R	I	ASTN1	CCDS1319.1	C	T	D	D	D
16461	1	180812038	T	A	672	H	L	RNASEL	CCDS1347.1	C	D	D	D	D
16461	1	181339370	G	T	235	D	Y	LAMC1	CCDS1351.1	C	D	D	D	D
16461	1	195665224	G	T	900	G	V	CRB1	CCDS1390.1	C	D	D	NA	D
16461	1	200106381	A	C	727	Q	H	IPO9	CCDS1415.1	C	D	D	D	D
16461	1	201012799	G	A	84	T	M	JARID1B	CCDS30974.1	C	D	D	D	D
16461	1	239098706	G	T	174	Q	K	RGS7	CCDS31071.1	C	D	P	D	D
16461	2	9493915	G	T	245	R	M	CPSF3	CCDS1664.1	C	D	D	D	D
16461	2	31032074	C	T	190	A	T	GALNT14	CCDS1773.2	C	D	D	D	D

16461	2	39746692	C	A	25	A	D	TMEM178	CCDS1804.1	C	D	P	D	D
16461	2	104839461	T	A	354	V	E	POU3F3	CCDS33265.1	C	D	D	U	D
16461	2	116227290	C	A	334	Q	K	DPP10	CCDS33278.1	C	D	D	D	D
16461	2	141174422	C	A	2222	K	N	LRP1B	CCDS2182.1	C	D	D	U	D
16461	2	220079305	C	T	360	P	L	GMPPA	CCDS2441.1	C	T	D	D	D
16461	3	7696961	T	A	893	C	S	GRM7	CCDS2567.1	C	D	D	D	D
16461	3	9388215	G	A	268	V	M	THUMPD3	CCDS2573.1	C	D	D	D	D
16461	3	27734163	C	A	488	R	L	EOMES	CCDS2646.1	C	D	D	N	D
16461	3	43616949	T	C	90	K	E	ANO10	CCDS2710.2	C	D	D	D	N
16461	3	47274025	C	T	337	M	I	KIF9	CCDS2751.1	C	T	D	D	D
16461	3	69133464	T	A	238	M	L	C3orf64	CCDS2908.1	C	T	D	D	D
16461	3	114996650	G	T	379	G	C	ATP6V1A	CCDS2976.1	C	D	D	D	D
16461	3	121008984	G	T	105	R	M	NR112	CCDS2995.1	C	D	D	D	NA
16461	3	132776642	A	C	297	L	W	CPNE4	CCDS3072.1	C	D	D	D	D
16461	3	185365290	A	G	159	N	S	DVL3	CCDS3253.1	C	T	D	D	D
16461	4	1331974	G	T	32	C	F	KIAA1530	CCDS33938.1	C	D	D	D	D
16461	4	56457800	T	G	705	L	R	EXOC1	CCDS3502.1	C	D	P	D	D
16461	4	57571330	G	T	484	R	L	POLR2B	CCDS3511.1	C	D	D	D	D
16461	4	68885405	G	C	273	S	C	YTHDC1	CCDS3522.2	C	D	NA	D	D
16461	4	89602386	C	A	182	P	T	HERC5	CCDS3630.1	C	D	D	D	D
16461	4	151373357	A	C	498	N	T	DCLK2	CCDS34076.1	C	D	D	D	D
16461	4	166440254	C	G	306	P	R	KLHL2	CCDS34094.1	C	NA	D	D	D
16461	5	38524973	C	G	767	E	Q	LIFR	CCDS3927.1	C	D	D	D	D
16461	5	50156547	G	A	637	A	T	PARP8	CCDS3954.1	C	D	P	D	D
16461	5	56210598	G	T	667	C	F	MAP3K1	CCDS43318.1	C	NA	D	D	D
16461	5	147908544	G	A	78	A	V	HTR4	CCDS4291.1	C	D	P	D	D
16461	6	3171032	G	T	97	A	D	TUBB2B	CCDS4485.1	C	D	D	D	D
16461	6	32038283	G	T	385	G	W	SKIV2L	CCDS4731.1	C	D	D	D	D
16461	6	94177383	G	A	130	T	I	EPHA7	CCDS5031.1	C	D	D	D	D
16461	6	147676751	A	T	395	H	L	STXBP5	CCDS5211.1	C	D	D	D	D
16461	7	36412459	C	T	211	S	F	ANLN	CCDS5447.1	C	D	D	D	D
16461	7	45716690	G	C	991	A	P	ADCY1	CCDS34631.1	C	NA	D	D	D
16461	7	77217048	G	T	359	A	S	RSBN1L	CCDS43607.1	C	D	NA	D	D
16461	7	89765052	G	T	610	G	V	C7orf63	CCDS43613.1	C	NA	D	D	D
16461	7	90422981	C	T	269	T	I	PFTK1	CCDS5619.1	C	D	P	D	D
16461	7	95272032	G	T	19	A	S	DYNC111	CCDS5644.1	C	D	P	D	D
16461	7	107607974	T	A	911	N	I	NRCAM	CCDS5751.1	C	D	D	D	D
16461	7	133783782	C	T	186	E	K	AKR1B1	CCDS5831.1	C	D	P	D	D
16461	8	103379883	C	T	1113	G	R	UBR5	CCDS34933.1	C	D	B	D	D
16461	8	139675499	G	A	1520	P	S	COL22A1	CCDS6376.1	C	D	D	D	D
16461	8	139902637	A	T	390	I	N	COL22A1	CCDS6376.1	C	D	D	N	D
16461	9	8309927	G	T	1845	S	R	PTPRD	CCDS6472.1	C	D	D	D	D
16461	9	72669189	G	T	79	P	H	TRPM3	CCDS43835.1	C	D	P	D	D
16461	9	100870706	G	T	1296	G	C	COL15A1	CCDS35081.1	C	D	D	D	D
16461	9	130795698	A	T	974	Y	F	NUP188	CCDS35156.1	C	T	D	D	D
16461	10	23522689	C	A	279	H	N	PTF1A	CCDS7143.1	C	D	D	D	D
16461	10	34688211	T	C	646	N	S	PARD3	CCDS7178.1	C	D	P	D	D

16461	10	35882090	G	T	239	Q	H	CCNY	CCDS7189.1	C	D	D	D	D
16461	10	54197985	C	G	222	C	S	MBL2	CCDS7247.1	C	D	D	D	D
16461	10	98277860	C	T	487	V	M	TM9SF3	CCDS7450.1	C	D	D	D	D
16461	10	108417470	C	A	757	C	F	SORCS1	CCDS7559.1	C	D	D	D	D
16461	10	118425906	G	T	462	H	N	HSPA12A	CCDS41569.1	C	D	D	D	NA
16461	11	4977525	A	T	246	H	L	OR51L1	CCDS31369.1	C	D	D	D	N
16461	11	47729390	T	G	222	E	D	FNBP4	CCDS41644.1	C	NA	D	D	D
16461	12	12868204	G	C	295	G	A	DDX47	CCDS8655.1	C	D	D	D	D
16461	12	32866817	C	A	608	V	L	PKP2	CCDS8731.1	C	D	D	D	D
16461	12	63104652	G	T	397	D	Y	XPOT	CCDS31852.1	C	NA	D	D	D
16461	12	69342612	C	T	513	G	E	PTPRR	CCDS8998.1	C	D	D	D	D
16461	12	81304740	G	T	96	C	F	C12orf26	CCDS9024.1	C	D	D	D	D
16461	12	99130248	A	T	219	D	V	ACTR6	CCDS9074.1	C	D	D	D	D
16461	12	119919728	C	A	460	Q	K	HNF1A	CCDS9209.1	C	D	D	D	D
16461	12	128260102	T	G	453	K	N	TMEM132L	CCDS9266.1	C	D	D	D	NA
16461	12	131891384	C	A	530	D	Y	GOLGA3	CCDS9281.1	C	D	D	D	D
16461	13	95306460	G	C	1321	L	V	UGCGL2	CCDS9480.1	C	D	D	D	D
16461	14	19474205	C	A	180	D	E	OR4K1	CCDS32025.1	C	D	D	D	N
16461	14	23690616	G	T	607	R	L	RNF31	CCDS41931.1	C	T	D	D	D
16461	14	69514388	G	A	160	G	D	SMOC1	CCDS9798.1	C	D	D	D	D
16461	14	74671438	T	G	188	Y	S	TMED10	CCDS9840.1	C	D	D	D	D
16461	15	78988632	A	G	576	Y	C	KIAA1199	CCDS10315.1	C	D	D	D	D
16461	16	24487776	G	T	755	R	L	RBBP6	CCDS10621.1	C	D	NA	D	D
16461	16	30981095	T	A	219	T	S	ZNF668	CCDS10701.1	C	D	P	D	D
16461	16	46680023	G	T	1137	L	I	ABCC12	CCDS10730.1	C	D	D	D	D
16461	16	60318499	T	A	512	Q	H	CDH8	CCDS10802.1	C	D	D	D	D
16461	17	11534021	G	T	1386	W	L	DNAH9	CCDS11160.1	C	D	D	D	D
16461	17	27825015	G	A	243	D	N	PSMD11	CCDS11272.1	C	D	B	D	D
16461	17	60630798	G	T	374	D	Y	RGS9	CCDS42373.1	C	D	D	D	D
16461	18	7030175	C	T	441	C	Y	LAMA1	CCDS32787.1	C	D	D	D	D
16461	18	32552540	G	C	919	R	P	FHOD3	CCDS32816.1	C	D	NA	D	D
16461	18	37871739	G	T	642	R	L	PIK3C3	CCDS11920.1	C	D	D	D	D
16461	18	40784483	G	C	340	E	Q	SETBP1	CCDS11923.1	C	D	D	D	N
16461	18	45362743	G	T	350	Q	H	LIPG	CCDS11938.1	C	D	D	D	D
16461	18	45820604	C	G	73	D	H	MYO5B	CCDS42436.1	C	D	D	D	D
16461	18	53175392	T	A	185	F	I	ST8SIA3	CCDS32834.1	C	D	D	D	D
16461	19	41024992	A	C	846	L	R	NPHS1	CCDS32996.1	C	D	D	D	NA
16461	19	47258826	C	A	89	G	V	GRIK5	CCDS12595.1	C	D	D	D	D
16461	20	34493952	C	A	140	R	S	DLGAP4	CCDS13274.1	C	D	D	D	D
16461	21	21704508	G	C	413	W	C	NCAM2	CCDS42910.1	C	NA	D	D	D
16461	22	30053135	C	A	602	E	D	PATZ1	CCDS13894.1	C	D	D	D	D
16461	22	35601683	G	A	224	V	M	NCF4	CCDS13934.1	C	D	P	D	D
16461	X	48342977	G	T	151	D	Y	WDR13	CCDS14302.1	C	D	P	D	D
16461	X	48710599	T	A	342	T	S	KCND1	CCDS14314.1	C	D	D	D	D
16461	X	50356485	G	T	1478	Q	K	SHROOM4	CCDS35277.1	C	D	NA	D	D
16461	X	118655087	T	A	296	E	V	6-Sep	CCDS14583.1	C	D	D	D	D
16617	1	41821668	T	G	463	E	A	HIVEP3	CCDS463.1	C	D	D	D	D

16617	1	100406606	C	T	19	E	K	LRRC39	CCDS766.1	C	D	D	D	D
16617	1	103236488	C	A	721	G	V	COL11A1	CCDS778.1	C	D	NA	D	D
16617	2	48439760	A	T	203	K	M	FOXN2	CCDS1838.1	C	D	D	D	D
16617	2	85835517	A	G	232	R	G	ATOH8	CCDS1985.1	C	D	D	D	D
16617	2	136105909	G	C	189	R	P	R3HDM1	CCDS2177.1	C	T	D	D	D
16617	2	211164895	G	T	348	G	V	CPS1	CCDS2393.1	C	D	P	D	D
16617	6	108325572	C	T	472	V	I	SEC63	CCDS5061.1	C	D	P	D	D
16617	7	81473027	G	A	502	P	L	CACNA2D1	CCDS5598.1	C	D	D	D	D
16617	7	93876622	G	T	282	R	L	COL1A2	CCDS34682.1	C	D	NA	D	D
16617	9	85448342	A	T	85	I	F	C9orf103	CCDS35048.1	C	D	P	D	D
16617	9	127737658	A	T	265	E	V	PBX3	CCDS6865.1	C	D	D	D	D
16617	10	59824794	G	T	232	R	L	TFAM	CCDS7253.1	C	D	D	D	D
16617	14	93122988	G	T	828	D	Y	KIAA1409	CCDS9911.2	C	D	D	D	D
16617	16	60318560	T	A	492	N	I	CDH8	CCDS10802.1	C	D	D	D	D
16617	16	88363855	G	C	799	P	A	FANCA	CCDS32515.1	C	D	D	D	N
16617	17	59129741	A	C	96	F	C	LIMD2	CCDS11641.1	C	D	D	D	D
16617	19	14134628	C	T	329	D	N	LPFN1	CCDS12307.1	C	D	D	D	NA
16617	21	42284900	G	A	792	R	W	ZNF295	CCDS13678.1	C	D	D	D	D
16617	22	40937196	C	G	1354	A	P	TCF20	CCDS14032.1	C	D	D	D	N
16617	X	21779645	C	T	179	A	V	MBTPS2	CCDS14201.1	C	D	D	D	D
16989	1	195185291	G	A	48	G	R	CFHR2	CCDS30959.1	C	D	D	N	D
16989	1	245655305	C	A	646	A	D	NLRP3	CCDS1632.1	C	D	D	D	D
16989	3	123485778	A	T	763	I	F	CASR	CCDS3010.1	C	T	D	D	D
16989	5	168133912	C	T	401	D	N	SLIT3	CCDS4369.1	C	D	B	D	D
16989	7	27101485	C	A	191	C	F	HOXA1	CCDS5401.1	C	T	D	D	D
16989	11	47776498	G	C	997	Q	E	NUP160	CCDS31484.1	C	D	D	D	D
16989	13	29680852	C	A	433	R	I	KATNAL1	CCDS31956.1	C	D	D	D	D
16989	16	56611586	G	T	245	R	L	C16orf57	CCDS10791.1	C	T	D	D	D
16989	17	35135509	A	T	917	T	S	ERBB2	CCDS32642.1	C	D	D	NA	D
16989	17	70355600	A	T	586	L	H	GRIN2C	CCDS32724.1	C	D	D	N	D
16989	18	27189035	G	T	960	G	C	DSG1	CCDS11896.1	C	D	P	D	D
16989	19	36459745	G	C	932	R	G	TSHZ3	CCDS12421.2	C	D	D	D	D
16989	20	30268176	G	T	178	W	L	POFUT1	CCDS13198.1	C	D	D	D	NA
16989	X	116917258	G	A	537	L	F	KLHL13	CCDS14571.1	C	D	D	D	D
18472	1	239818721	C	T	355	A	V	KMO	CCDS1618.1	C	D	D	D	D
18472	2	201839759	G	T	102	R	M	CASP8	CCDS2342.1	C	D	D	D	NA
18472	3	198142180	C	T	753	L	F	SENPA5	CCDS3322.1	C	D	P	D	D
18472	8	145062820	C	T	4413	R	H	PLEC1	CCDS43769.1	C	D	D	U	D
18472	9	133759164	T	C	204	M	V	MED27	CCDS6945.1	C	T	D	D	D
18472	10	27548715	C	G	155	E	Q	ACBD5	CCDS7154.1	C	D	D	D	D
18472	10	95316832	G	A	122	G	D	GPR120	CCDS31248.1	C	T	D	D	D
18472	11	6200327	A	G	371	L	P	FAM160A2	CCDS7760.1	C	D	D	D	D
18472	11	128286493	C	T	39	R	C	KCNJ5	CCDS8479.1	C	D	D	N	D
18472	14	51575302	G	T	724	L	M	NID2	CCDS9706.1	C	D	P	D	D
18472	17	46452553	T	C	339	M	V	SPAG9	CCDS11577.1	C	D	P	D	D
18472	18	27947722	T	C	98	M	T	RNF138	CCDS11903.1	C	D	D	D	NA
18472	X	53619386	T	C	1991	Y	C	HUWE1	CCDS35301.1	C	D	D	N	D

18472	X	152840026	G	A	141	R	C	ARHGAP4	CCDS14736.1	C	D	D	D	D
7285	1	1257126	C	G	146	S	W	TAS1R3	CCDS30556.1	C	D	D	N	D
7285	1	152584147	G	T	821	R	L	ATP8B2	CCDS1066.1	C	D	D	D	D
7285	1	173571519	C	A	1194	W	C	TNR	CCDS1318.1	C	D	D	D	D
7285	1	198356676	T	C	404	C	R	NR5A2	CCDS1400.1	C	D	D	D	D
7285	1	213842125	A	T	366	D	V	KCTD3	CCDS1515.1	C	D	D	D	D
7285	2	40509715	C	T	404	D	N	SLC8A1	CCDS1806.1	C	D	D	D	D
7285	3	149942333	G	A	274	C	Y	AGTR1	CCDS3137.1	C	D	D	D	D
7285	3	184974166	T	G	753	L	W	YEATS2	CCDS43175.1	C	NA	D	D	D
7285	5	38517785	T	A	988	E	V	LIFR	CCDS3927.1	C	D	D	D	D
7285	6	28979947	A	C	474	F	C	TRIM27	CCDS4654.1	C	D	D	D	D
7285	6	32038804	A	T	454	S	C	SKIV2L	CCDS4731.1	C	D	D	D	D
7285	6	90482175	C	T	2260	E	K	MDN1	CCDS5024.1	C	D	D	D	D
7285	7	94857442	T	C	54	D	G	PON3	CCDS5639.1	C	D	D	D	D
7285	7	106549671	G	C	128	D	H	PRKAR2B	CCDS5740.1	C	D	P	D	D
7285	7	124290699	C	T	163	D	N	POT1	CCDS5793.1	C	T	D	D	D
7285	7	128274177	G	A	1424	G	R	FLNC	CCDS43644.1	C	D	D	D	D
7285	7	133230916	G	T	587	V	F	EXOC4	CCDS5829.1	C	D	B	D	D
7285	8	39746172	A	T	370	C	S	ADAM2	CCDS34884.1	C	D	D	NA	D
7285	8	69184231	C	G	989	Q	E	PREX2	CCDS6201.1	C	D	D	D	N
7285	8	69193377	C	A	1122	T	N	PREX2	CCDS6201.1	C	D	P	D	D
7285	8	75920032	G	A	169	M	I	PI15	CCDS6218.1	C	T	D	D	D
7285	8	87299119	G	A	292	P	L	SLC7A13	CCDS34917.1	C	D	D	N	D
7285	8	95333446	C	A	197	R	L	GEM	CCDS6261.1	C	D	D	D	D
7285	8	105525652	C	A	265	G	W	DPYS	CCDS6302.1	C	D	D	D	D
7285	8	109039549	G	T	184	T	K	RSPO2	CCDS6307.1	C	T	D	D	D
7285	8	113747682	C	G	939	R	T	CSMD3	CCDS6315.1	C	T	D	D	D
7285	8	121362376	A	G	1241	K	E	COL14A1	CCDS34938.1	C	D	D	D	D
7285	8	139220475	C	A	1279	Q	H	FAM135B	CCDS6375.2	C	D	D	D	D
7285	9	73539568	C	T	456	C	Y	TMEM2	CCDS6638.1	C	D	D	D	D
7285	9	79145215	A	C	2319	N	H	VPS13A	CCDS6655.1	C	D	D	D	D
7285	10	29011068	C	T	172	A	V	BAMBI	CCDS7162.1	C	D	D	D	D
7285	10	55625528	G	T	409	P	Q	PCDH15	CCDS7248.1	C	D	D	NA	D
7285	10	60232938	G	A	704	R	K	BICC1	CCDS31206.1	C	T	D	D	D
7285	10	68196044	G	T	422	T	N	CTNNA3	CCDS7269.1	C	D	P	D	D
7285	12	7872686	G	T	209	P	Q	SLC2A14	CCDS8585.1	C	T	D	D	D
7285	12	46820797	T	A	406	M	K	PFKM	CCDS8760.1	C	D	P	D	D
7285	12	71333185	G	T	944	W	L	TRHDE	CCDS9004.1	C	D	D	D	D
7285	15	26129882	T	A	2310	Q	H	HERC2	CCDS10021.1	C	T	D	D	D
7285	15	39647727	A	G	328	N	D	TYRO3	CCDS10080.1	C	D	D	D	D
7285	15	40243156	T	C	697	I	V	VPS39	CCDS10083.1	C	D	P	D	D
7285	16	9765091	A	C	1271	W	G	GRIN2A	CCDS10539.1	C	T	D	D	D
7285	16	13927978	C	T	150	R	C	ERCC4	CCDS32390.1	C	D	D	D	D
7285	16	57133655	G	A	1554	P	L	CNOT1	CCDS10799.1	C	D	D	D	D
7285	16	75950732	G	T	436	H	N	ADAMTS18	CCDS10926.1	C	D	D	D	D
7285	17	8107152	G	T	471	V	L	PFAS	CCDS11136.1	C	D	P	D	D
7285	17	50439923	C	T	211	P	L	STXBP4	CCDS11584.2	C	D	D	N	D

7285	17	53924943	G	A	1113	P	L	MTMR4	CCDS11608.1	C	D	D	D	D
7285	17	78383528	G	T	31	P	H	ZNF750	CCDS11819.1	C	D	D	D	D
7285	18	46829184	G	T	127	C	F	SMAD4	CCDS11950.1	C	D	D	D	D
7285	18	48846516	C	A	415	L	I	DCC	CCDS11952.1	C	D	D	D	D
7285	20	9337715	G	C	617	R	P	PLCB4	CCDS13104.1	C	D	D	D	D
7285	20	21635111	G	C	14	V	L	PAX1	CCDS13146.1	C	D	D	D	NA
7285	20	30019907	T	C	90	F	L	XKR7	CCDS33459.1	C	D	D	D	NA
7285	20	49566879	G	T	395	P	T	NFATC2	CCDS13437.1	C	D	P	D	D
7285	22	41988706	C	T	192	G	S	SCUBE1	CCDS14048.1	C	D	B	D	D
7285	X	31406370	A	G	444	L	P	DMD	CCDS14228.1	C	D	D	U	D
7313	1	17221745	G	A	237	P	L	SDHB	CCDS176.1	C	D	D	D	D
7313	1	35977688	G	A	1058	A	V	CLSPN	CCDS396.1	C	D	D	D	D
7313	1	111240846	C	T	158	P	S	CD53	CCDS829.1	C	T	D	D	D
7313	1	163780453	G	T	99	G	V	LRRC52	CCDS30930.1	C	T	D	D	D
7313	1	167612560	C	T	63	L	F	BLZF1	CCDS1278.1	C	D	D	D	D
7313	1	174316912	T	C	426	S	G	RFWD2	CCDS30944.1	C	D	D	D	D
7313	1	177321625	C	T	205	H	Y	TOR3A	CCDS1329.1	C	D	D	D	D
7313	1	226945979	G	A	216	D	N	RHOA	CCDS1575.1	C	D	D	D	D
7313	1	232666292	T	A	438	Q	L	TARBP1	CCDS1601.1	C	D	D	D	N
7313	1	241802912	G	T	253	A	E	AKT3	CCDS31076.1	C	D	D	D	D
7313	2	37159879	G	C	76	L	V	HEATR5B	CCDS33181.1	C	D	B	D	D
7313	2	79238974	G	C	107	H	D	REG3A	CCDS1965.1	C	D	D	N	D
7313	2	136281421	C	A	1307	G	V	LCT	CCDS2178.1	C	D	D	D	D
7313	2	159822617	C	G	284	V	L	WDSUB1	CCDS2208.1	C	D	D	D	D
7313	2	175691002	G	A	137	P	S	ATF2	CCDS2262.1	C	T	D	D	D
7313	2	177807179	C	G	38	D	H	NFE2L2	CCDS42782.1	C	NA	D	D	D
7313	3	38735180	C	A	1217	A	S	SCN10A	CCDS33736.1	C	D	D	D	NA
7313	3	95075874	C	A	646	G	C	PROS1	CCDS2923.1	C	D	D	D	NA
7313	3	110305434	C	A	59	G	W	MORC1	CCDS2955.1	C	D	D	D	D
7313	3	125692946	T	A	1556	N	K	KALRN	CCDS3027.1	C	T	D	D	D
7313	3	180824488	T	A	179	I	N	NDUFB5	CCDS3234.1	C	D	D	D	D
7313	4	48741575	G	T	607	D	Y	FLJ21511	CCDS3486.1	C	D	D	D	D
7313	5	19874647	G	C	69	P	R	CDH18	CCDS3889.1	C	D	D	D	D
7313	5	21819255	C	A	454	Q	H	CDH12	CCDS3890.1	C	D	D	D	D
7313	5	50147087	C	T	547	A	V	PARP8	CCDS3954.1	C	T	D	D	D
7313	5	63292794	G	C	170	P	R	HTR1A	CCDS34168.1	C	D	D	D	D
7313	6	106642943	G	T	37	G	C	PRDM1	CCDS5054.1	C	D	D	D	D
7313	6	134345445	G	T	61	W	L	TBPL1	CCDS5168.1	C	D	D	D	D
7313	7	110550783	G	T	240	S	I	LRRN3	CCDS5754.1	C	D	D	D	N
7313	7	111883293	G	T	67	G	V	IFRD1	CCDS34736.1	C	D	D	D	D
7313	7	124191326	C	A	314	C	F	GPR37	CCDS5792.1	C	D	D	D	D
7313	7	125960819	C	A	618	G	V	GRM8	CCDS5794.1	C	D	D	D	D
7313	7	136822907	G	T	791	R	S	DGKI	CCDS5845.1	C	D	D	D	D
7313	7	137451937	G	T	324	D	Y	AKR1D1	CCDS5846.1	C	D	D	D	D
7313	7	139694936	G	A	328	A	V	SLC37A3	CCDS5858.1	C	D	P	D	D
7313	8	27665969	C	T	75	V	M	CCDC25	CCDS6062.2	C	D	D	D	D
7313	9	73550195	G	C	198	S	C	TMEM2	CCDS6638.1	C	D	D	D	D

7313	10	393838	G	A	945	S	F	DIP2C	CCDS7054.1	C	D	P	D	D
7313	10	14612398	G	C	198	P	A	FAM107B	CCDS7102.1	C	D	D	D	D
7313	11	1263862	C	T	186	V	M	TOLLIP	CCDS7723.1	C	D	B	D	D
7313	11	18209665	G	A	118	P	L	SAA4	CCDS7832.1	C	D	D	NA	D
7313	11	40094292	G	C	43	R	G	LRR4C	CCDS31464.1	C	T	D	D	D
7313	11	64581430	G	A	198	R	C	NAALADL1	CCDS31604.1	C	D	D	D	D
7313	11	65407278	T	A	276	V	E	CTSW	CCDS8117.1	C	D	D	N	D
7313	11	122353797	A	G	158	F	L	BSX	CCDS41728.1	C	D	D	D	D
7313	12	841543	C	T	662	S	F	WNK1	CCDS8506.1	C	D	B	D	D
7313	12	37984960	C	A	1484	C	F	KIF21A	CCDS31773.1	C	D	D	D	D
7313	12	74023956	T	A	131	C	S	GLIPR1L1	CCDS9009.1	C	D	D	D	D
7313	14	23642247	G	T	471	G	W	PCK2	CCDS9609.1	C	D	D	D	D
7313	14	92751070	T	G	162	F	V	UBR7	CCDS9909.1	C	D	D	D	D
7313	14	104684768	C	G	807	G	R	JAG2	CCDS9998.1	C	D	D	D	D
7313	15	32142850	T	A	214	C	S	CHRM5	CCDS10031.1	C	T	D	D	D
7313	15	60780660	G	T	551	D	Y	TLN2	CCDS32261.1	C	D	P	D	D
7313	16	3741731	T	C	1259	Q	R	CREBBP	CCDS10509.1	C	D	NA	D	D
7313	16	23907383	C	T	87	P	S	PRKCB	CCDS10618.1	C	D	D	D	D
7313	17	4672957	A	T	878	Y	F	PLD2	CCDS11057.1	C	T	D	D	D
7313	17	7518276	C	G	244	G	R	TP53	CCDS11118.1	C	D	D	D	D
7313	17	77420125	G	C	177	I	M	ARHGDI A	CCDS11788.1	C	D	P	D	D
7313	18	5413430	T	A	429	Y	F	EPB41L3	CCDS11838.1	C	T	D	D	D
7313	19	570252	G	C	1037	F	L	POLRMT	CCDS12036.1	C	D	D	D	D
7313	19	7499572	G	T	323	G	C	MCOLN1	CCDS12180.1	C	D	D	D	D
7313	20	8718179	T	C	1098	M	T	PLCB1	CCDS13102.1	C	D	D	D	N
7313	X	48921364	G	A	293	R	C	PRICKLE3	CCDS14320.1	C	D	D	N	D
7313	X	57179437	G	T	107	L	I	SPIN2A	CCDS35312.1	C	D	P	D	D
7313	X	152685681	G	A	69	G	S	PLXNB3	CCDS14729.1	C	D	D	D	D
7945	16	1440569	G	A	516	P	L	CLCN7	CCDS32361.1	C	D	D	D	D
7996	1	70250138	C	A	321	L	I	LRR7	CCDS645.1	C	D	D	D	D
7996	1	153716158	C	T	1043	G	R	ASH1L	CCDS1113.2	C	D	P	D	D
7996	8	53188343	T	A	1038	I	F	ST18	CCDS6149.1	C	D	D	D	D
7996	8	54304587	G	C	322	N	K	OPRK1	CCDS6152.1	C	D	D	D	D
7996	9	33913820	A	T	923	S	R	UBAP2	CCDS6547.1	C	D	NA	D	D
7996	11	34090188	A	G	72	R	G	NAT10	CCDS7889.1	C	D	P	D	D
7996	11	103413501	C	G	247	N	K	DDI1	CCDS31660.1	C	T	D	D	D
7996	12	54890445	C	T	89	G	S	RNF41	CCDS8909.1	C	D	D	D	D
7996	16	74220863	T	C	501	E	G	KARS	CCDS10923.1	C	D	D	D	D
7996	18	3492541	G	A	892	H	Y	DLGAP1	CCDS11836.1	C	T	D	D	D
7996	18	32552519	G	T	912	R	L	FHOD3	CCDS32816.1	C	D	D	D	D
LU-1516	7	55227009	T	G	858	L	R	EGFR	CCDS5514.1	C	D	D	D	D
LU-1516	X	9824046	C	A	700	R	S	SHROOM2	CCDS14135.1	C	D	D	D	D
LU-1991	1	67211197	T	G	293	C	G	MIER1	CCDS41347.1	C	D	D	D	D
LU-1991	1	77760111	G	T	441	L	F	AK5	CCDS675.1	C	D	D	D	D
LU-1991	1	156565843	C	G	276	G	A	CD1B	CCDS1176.1	C	D	D	D	N
LU-1991	1	178418035	G	T	237	C	F	QSOX1	CCDS1337.1	C	T	D	D	D
LU-1991	1	212237806	G	C	435	Q	H	PROX1	CCDS31021.1	C	D	D	D	D

LU-1991 1	234220832	C	A	969	A	S	NID1	CCDS1608.1	C	D	B	D	D
LU-1991 2	11252590	T	A	1154	E	V	ROCK2	CCDS42654.1	C	NA	D	D	D
LU-1991 2	26538102	C	A	1066	W	C	OTOF	CCDS1724.1	C	D	D	D	D
LU-1991 2	26538103	C	A	1066	W	L	OTOF	CCDS1724.1	C	D	D	D	D
LU-1991 2	68219425	C	G	196	D	H	WDR92	CCDS1884.1	C	D	D	D	N
LU-1991 2	105224759	C	A	4	N	K	GPR45	CCDS2066.1	C	D	D	D	D
LU-1991 2	113133798	G	A	532	G	D	SLC20A1	CCDS2099.1	C	D	D	D	D
LU-1991 2	116227309	C	A	340	T	K	DPP10	CCDS33278.1	C	D	D	D	D
LU-1991 2	116288975	C	A	606	Q	K	DPP10	CCDS33278.1	C	T	D	D	D
LU-1991 2	163000262	G	T	549	A	D	KCNH7	CCDS2219.1	C	D	D	D	D
LU-1991 2	165729250	A	T	167	F	Y	SCN3A	CCDS33312.1	C	D	P	D	D
LU-1991 2	185511592	C	A	1075	P	Q	ZNF804A	CCDS2291.1	C	D	D	N	D
LU-1991 2	191989110	G	C	1004	D	H	MYO1B	CCDS2311.1	C	D	D	D	D
LU-1991 2	228594762	G	T	202	D	E	SPHKAP	CCDS33389.1	C	D	D	D	D
LU-1991 2	233118618	C	A	501	P	Q	CHRNA	CCDS33400.1	C	D	D	D	D
LU-1991 3	38238145	G	T	188	G	V	OXSRI	CCDS2675.1	C	D	D	D	D
LU-1991 3	43364226	G	A	491	E	K	SNRK	CCDS43075.1	C	NA	D	D	D
LU-1991 3	43571774	C	A	556	Q	H	ANO10	CCDS2710.2	C	D	D	D	D
LU-1991 3	69211988	C	A	9	K	N	UBA3	CCDS2909.1	C	D	B	D	D
LU-1991 3	141605301	C	G	125	Q	E	CLSTN2	CCDS3112.1	C	D	D	D	D
LU-1991 4	2099666	C	A	652	D	Y	POLN	CCDS33360.1	C	D	D	D	D
LU-1991 4	47807369	C	T	130	G	D	TXK	CCDS3480.1	C	T	D	D	D
LU-1991 4	129262756	G	T	496	W	L	LARP2	CCDS3738.1	C	D	D	D	D
LU-1991 4	142870498	G	T	97	V	F	IL15	CCDS3755.1	C	D	D	D	D
LU-1991 4	164658041	C	A	132	P	T	C4orf43	CCDS43278.1	C	T	D	D	D
LU-1991 5	176246670	C	A	599	G	V	HK3	CCDS4407.1	C	D	D	D	D
LU-1991 6	26216075	C	T	76	D	N	HIST1H1T	CCDS34349.1	C	T	D	D	D
LU-1991 6	33397647	C	G	12	D	H	DAXX	CCDS4776.1	C	D	D	D	D
LU-1991 6	38939692	T	A	1909	S	T	DNAH8	CCDS4838.1	C	D	D	D	N
LU-1991 6	64474055	C	T	1182	T	M	PHF3	CCDS4966.1	C	D	D	N	D
LU-1991 6	85503281	C	G	555	L	F	TBX18	CCDS34495.1	C	D	D	N	D
LU-1991 6	127649791	T	G	113	W	G	RNF146	CCDS5136.1	C	D	D	D	D
LU-1991 6	131263970	G	T	325	R	S	EPB41L2	CCDS5141.1	C	D	D	D	D
LU-1991 6	160033761	G	T	50	H	N	SOD2	CCDS5265.1	C	D	D	D	D
LU-1991 7	20664717	G	A	89	A	T	ABCB5	CCDS5371.1	C	D	D	D	D
LU-1991 7	27839084	G	C	198	H	D	JAZF1	CCDS5416.1	C	D	D	D	D
LU-1991 9	137811066	C	A	924	P	T	KCNT1	CCDS35175.1	C	D	D	U	D
LU-1991 9	137811067	C	A	924	P	H	KCNT1	CCDS35175.1	C	D	D	U	D
LU-1991 9	139261954	G	C	12	P	R	FAM166A	CCDS35186.1	C	D	D	D	D
LU-1991 10	15726035	C	T	467	D	N	ITGA8	CCDS31155.1	C	D	D	D	D
LU-1991 10	33514567	C	T	809	C	Y	NRP1	CCDS7177.1	C	D	D	D	D
LU-1991 10	76405173	A	T	358	S	C	MYST4	CCDS7345.1	C	D	D	D	N
LU-1991 10	82172228	G	A	85	C	Y	C10orf58	CCDS7368.1	C	D	D	D	N
LU-1991 11	87940654	C	A	615	R	S	GRM5	CCDS8283.1	C	D	D	D	D
LU-1991 12	4606164	C	A	722	G	V	AKAP3	CCDS8531.1	C	D	D	N	D
LU-1991 12	38963996	G	T	765	G	V	LRRK2	CCDS31774.1	C	D	D	D	D
LU-1991 12	38984189	A	T	1255	N	Y	LRRK2	CCDS31774.1	C	D	D	D	D



LU-1991	12	42462517	G	A	361	R	H	IRAK4	CCDS8744.1	C	D	D	D	D
LU-1991	12	51063841	G	C	185	F	L	KRT84	CCDS8825.1	C	D	D	D	N
LU-1991	12	67931302	G	T	63	D	Y	CPSF6	CCDS8988.1	C	D	NA	D	D
LU-1991	12	75973987	C	G	50	E	Q	E2F7	CCDS9016.1	C	T	D	D	D
LU-1991	12	94431758	A	G	462	I	V	METAP2	CCDS9052.1	C	D	B	D	D
LU-1991	12	103991796	C	A	56	D	Y	ALDH1L2	CCDS31891.1	C	D	D	D	D
LU-1991	14	30712334	C	A	312	G	V	HECTD1	CCDS41939.1	C	D	D	D	D
LU-1991	14	52296167	T	G	150	V	G	STYX	CCDS9711.1	C	D	D	D	D
LU-1991	14	101586627	G	T	4639	G	C	DYNC1H1	CCDS9966.1	C	D	D	D	D
LU-1991	15	40531226	C	A	156	G	V	ZFP106	CCDS32208.1	C	D	D	D	D
LU-1991	15	50396587	C	A	1762	D	Y	MYO5A	CCDS42037.1	C	D	B	D	D
LU-1991	15	73438537	G	A	686	S	F	MAN2C1	CCDS32298.1	C	T	D	D	D
LU-1991	16	49733015	C	T	207	V	M	SALL1	CCDS10747.1	C	D	D	D	D
LU-1991	18	21061233	G	T	216	S	Y	ZNF521	CCDS32806.1	C	D	D	D	N
LU-1991	18	31171252	A	G	350	L	P	ZNF24	CCDS11912.1	C	D	D	N	D
LU-1991	18	45583177	C	T	21	G	R	ACAA2	CCDS11939.1	C	D	D	D	D
LU-2349	3	42274716	G	C	76	R	G	CCK	CCDS2696.1	C	D	D	D	D
LU-2349	3	143986285	G	T	303	G	V	TRPC1	CCDS3126.1	C	D	D	D	D
LU-2349	5	170327904	A	T	543	E	V	RANBP17	CCDS34287.1	C	D	D	D	D
LU-2349	7	81552054	C	A	209	G	C	CACNA2D1	CCDS5598.1	C	D	D	D	D
LU-2349	7	124298227	C	T	77	D	N	POT1	CCDS5793.1	C	D	D	D	D
LU-2349	7	128202403	G	T	132	R	S	OPN1SW	CCDS5806.1	C	D	D	D	D
LU-2349	10	115364589	T	A	1027	D	V	NRAP	CCDS7578.1	C	D	D	D	D
LU-2349	14	46190581	C	A	37	G	C	RPL10L	CCDS32071.1	C	D	D	D	D
LU-2349	14	50546922	C	G	361	R	P	TRIM9	CCDS9703.1	C	D	D	D	D
LU-2349	20	2544813	A	C	635	N	H	TMC2	CCDS13029.2	C	D	P	D	D
LU-2349	20	6707411	G	T	289	R	L	BMP2	CCDS13099.1	C	D	D	N	D
LU-2349	X	53287799	G	T	764	H	Q	IQSEC2	CCDS35298.1	C	D	D	D	D
LU-2349	X	150874627	A	C	336	Y	D	GABRE	CCDS14703.1	C	D	D	D	NA
Lu-597	20	33776439	A	T	157	C	S	RBM39	CCDS13265.1	C	D	D	D	NA

**Supplementary Table 10.** Comparison of the somatic SNVs from our exomes with the COSMIC database

Sample	Gene	Locus	mutation	Exome-seq	COSMIC reported mutations
7313	TP53	chr17:7518276-7518276	missense	p.G244R	p.G244R,p.G244A,p.G244C,p.G244D,p.G244fs*19,p.G244fs*3,p.G244S,p.G244V,p.M243_G244>IC,p.M243I,p.M243T,p.Y236_M243delYMCNSSCM
12820	TP53	chr17:7519119-7519119	missense	p.H179R	p.H179R,p.C176fs*68,p.E171_H179delEVVRRCPHH,p.E171fs*1,p.H178_H179>QY,p.H179D,p.H179del,p.H179fs*68,p.H179H,p.H179L,p.H179N,p.H179P,p.H179Q,p.H179Y,p.P177_H179delPHH,p.R174_H179delRRCPPHH,p.R174fs*1,p.V157F,p.D148fs*23,p.G154_R156delGTR,p.R156del,p.R156R,p.T155_R156delTR,p.T155fs*23,p.V157A,p.V157D,p.V157fs*13,p.V157fs*23,p.V157fs*24,p.V157fs*25,p.V157G,p.V157I,p.V157L
16461	TP53	chr17:7519186-7519186	missense	p.V157F	p.R156P,p.G154_R156delGTR,p.G154fs*14,p.P152fs*14,p.R156C,p.R156del,p.R156fs*14,p.R156fs*25,p.R156G,p.R156H,p.R156L,p.R156R,p.R156S,p.T155_R156delTR,p.V157fs*13
7996	TP53	chr17:7519188-7519188	missense	p.R156P	p.T155P,p.G154G,p.P152fs*14,p.Q144_G154del11,p.T155A,p.T155fs*15,p.T155fs*25,p.T155fs*26,p.T155I,p.T155N,p.T155S
LU-1991	TP53	chr17:7519192-7519192	missense	p.T155P	p.G154fs*27,p.G154A,p.G154C,p.G154D,p.G154G,p.G154I,p.G154S,p.G154V,p.P153_G154insX,p.P153fs*26,p.Q144_G154del11,p.Q144fs*16,p.T150fs*16
13542	TP53	chr17:7519194-7519194	FS_del	p.G154fs*27	p.V122fs*26
15822	TP53	chr17:7520046-7520047	FS_del	p.V122fs*26	p.V73fs*50,p.R72fs*51,p.R72H,p.V73fs*76,p.V73L,p.V73M
12924	TP53	chr17:7520196-7520196	FS_del	p.V73fs*50	p.P34fs*8,p.L35fs*9,p.P34L
13394	TP53	chr17:7520310-7520310	FS_del	P34fs*8	p.L26fs*18,p.P27fs*17
7285	TP53	chr17:7520443-7520443	FS_del	p.L26fs*18	
12586,13					p.G12C,p.A11_G12insGA,p.G12A,p.G12D,p.G12F,p.G12fs*3,p.G12I,p.G12L,p.G12N,p.G12R,p.G12S,p.G12V,p.G12Y
681	KRAS	chr12:25289552-25289552	missense	p.G12C	p.K175N
12924	MAB21L1	chr13:34947750-34947750	missense	p.C176G	p.G86S
12586	ZNF345	chr19:42059829-42059829	missense	p.G86V	p.K720*
13280	RB1	chr13:47935919-47935919	nonsense	p.K720*	p.L858R,p.L858K,p.L858L,p.L858M,p.L858Q
LU-1516	EGFR	chr7:55227009-55227009	missense	p.L858R	p.R162*
LU-1516	PIK3R1	chr5:67605579-67605579	nonsense	p.R162*	p.T811R
12924	HKDC1	chr10:70695406-70695406	missense	p.T811K	p.V76A
12586	GPS1	chr17:77604511-77604511	missense	p.V76L	p.H61R,p.H61L,p.H61P
13394	PTEN	chr10:89675267-89675267	missense	p.H61R	p.R1156H
16246	KIAA1409	chr14:93149139-93149139	missense	p.R1156L	p.Y286*
12924	NTNG1	chr1:107669038-107669038	nonsense	p.Y286*	p.R141S
12924	APC	chr5:112139225-112139225	missense	p.R141S	p.T95T
LU-2349	ADAM12	chr10:127833839-127833839	missense	p.E96Q	p.V23M
12820	SLC37A3	chr7:139728729-139728729	missense	p.V23L	p.R765Q
15858	CLSTN2	chr3:141764424-141764424	missense	p.R765L	p.G1043R
7996	ASH1L	chr1:153716158-153716158	missense	p.G1043R	

**Supplementary Table 11.** Mutated genes common in both ADC and SCC

Genes	#_ADC	#_SCC	#_tumors	alpha	pvalueLRT
TP53	3	7	10	9.89E-05	5.9E-16
LRRC7	2	3	5	2.07E-05	3.5E-07
SLC7A13	1	2	3	3.72E-05	6.6E-06
PCDH11X	2	2	4	1.76E-05	3.7E-05
CSMD3	1	5	6	8.45E-06	5.7E-05
DNAH3	2	1	3	4.04E-05	7.8E-05
CD1B	2	1	3	3.80E-05	3.0E-04
CACNA2D1	2	2	4	1.34E-05	4.8E-04
KEAP1	1	2	3	2.01E-05	6.8E-04
PIK3C2B	1	3	4	9.30E-06	7.2E-04
CTNNA3	1	3	4	1.71E-05	9.9E-04
USH2A	2	3	5	4.27E-06	1.2E-03
NAV3	2	2	4	7.60E-06	1.5E-03
FAT4	3	2	5	1.09E-05	1.6E-03
PAPPA2	2	2	4	8.39E-06	2.1E-03
ZNF804A	1	3	4	1.26E-05	2.1E-03
IGSF11	1	2	3	2.70E-05	2.3E-03
PIK3CG	2	1	3	1.08E-05	2.4E-03
SLC39A12	1	2	3	1.66E-05	3.0E-03
SLC17A6	2	1	3	2.01E-05	3.2E-03
BICC1	1	2	3	6.71E-05	3.3E-03
TSHZ2	2	1	3	1.13E-05	3.9E-03
DCC	1	3	4	1.22E-05	4.2E-03
ABCC11	2	1	3	8.23E-06	4.8E-03
KCNT1	2	1	3	1.16E-05	5.5E-03
ZNF521	2	1	3	1.10E-05	7.7E-03
PCDHB10	2	1	3	1.54E-05	7.8E-03
SPTA1	1	3	4	5.54E-06	7.9E-03
CDH18	1	2	3	1.43E-05	9.4E-03
BAI3	1	2	3	8.79E-06	1.4E-02
MYH2	1	2	3	6.75E-06	1.5E-02
FLNC	3	1	4	4.76E-06	2.0E-02
PARP8	1	2	3	1.15E-05	3.4E-02
ROCK2	2	1	3	6.69E-06	4.3E-02
DYSF	2	1	3	3.99E-06	4.7E-02
LRP1B	2	2	4	2.62E-06	5.7E-02
SALL1	1	2	3	7.71E-06	5.9E-02
WDR17	2	1	3	6.93E-06	6.5E-02
ALK	2	1	3	5.88E-06	7.1E-02
CSMD2	2	2	4	2.90E-06	7.8E-02
ANK1	2	2	4	4.52E-06	8.0E-02
MYH1	1	2	3	4.41E-06	8.3E-02
MYO5A	2	1	3	4.63E-06	1.0E-01
KIAA1409	1	2	3	3.38E-06	1.1E-01
HEATR5B	2	1	3	4.22E-06	1.1E-01
PHKA1	1	2	3	4.80E-06	1.7E-01
XIRP2	2	2	4	2.13E-06	2.2E-01
SI	1	2	3	3.62E-06	2.4E-01
KALRN	1	2	3	2.08E-06	2.9E-01
LAMA1	2	1	3	1.20E-06	5.8E-01
MLL3	1	2	3	8.41E-07	6.1E-01
SYNE1	1	2	3	0.00E+00	1.0E+00

**Supplementary Table 12.** Mutated genes specific in ADC

<b>Genes</b>	<b>#_tumors</b>	<b>alpha</b>	<b>pvalueLRT</b>
ZNF717	3	2.14E-05	2.16E-09
RAB6B	2	3.84E-05	5.79E-05
DCAF12L2	2	2.91E-05	5.22E-04
MAGEB18	2	2.54E-05	1.29E-03
C14orf49	2	8.81E-06	1.29E-03
AHSG	2	2.33E-05	1.99E-03
KRAS	2	3.51E-05	2.53E-03
KIF5A	2	7.16E-06	7.56E-03
RBL1	2	7.05E-06	7.77E-03
CPNE3	2	1.36E-05	9.83E-03
ZBTB20	2	1.05E-05	1.04E-02
ATP6V1A	2	1.21E-05	1.20E-02
NPAS4	2	9.96E-06	1.80E-02
GFRAL	2	1.91E-05	1.81E-02
TTC5	2	1.75E-05	2.11E-02
CLSTN2	2	7.72E-06	2.12E-02
ZFP57	2	1.45E-05	2.20E-02
DPP10	2	1.16E-05	2.67E-02
THUMPD2	2	1.49E-05	2.84E-02
RANBP17	2	6.35E-06	3.83E-02
KANK4	2	7.76E-06	3.85E-02
MYO3B	2	5.04E-06	4.39E-02
KLHL4	2	9.95E-06	4.65E-02
NOX4	2	1.16E-05	5.53E-02
NELL1	2	8.25E-06	5.58E-02
QSOX1	2	9.83E-06	5.74E-02
ASTN1	2	5.04E-06	6.32E-02
FAM75C2	2	6.48E-06	6.71E-02
ANKRD30A	2	4.78E-06	8.39E-02
LTBP1	2	3.60E-06	8.84E-02
ANO10	2	9.96E-06	9.56E-02
KCNT2	2	5.38E-06	1.04E-01
PROX1	2	9.16E-06	1.08E-01
PKD1L1	2	2.12E-06	1.20E-01
ROBO2	2	4.34E-06	1.37E-01
SCN2A	2	2.72E-06	1.39E-01
ABCA6	2	3.24E-06	1.93E-01
SMC2	2	4.52E-06	2.03E-01
CTNND2	2	4.57E-06	2.20E-01
COL24A1	2	3.03E-06	2.44E-01
CABIN1	2	2.09E-06	2.99E-01
NOS1	2	3.21E-06	3.14E-01
ABCA12	2	6.90E-07	7.43E-01

**Supplementary Table 13.** Mutated genes specific in SCC

Genes	#_tumors	alpha	pvalueLRT
ARMCX2	3	2.08E-05	2.26E-04
COL27A1	2	4.06E-05	4.78E-04
APBB1IP	2	1.24E-04	5.22E-04
HSPA6	2	1.96E-05	3.97E-03
DDI1	2	2.17E-05	7.23E-03
SLCO4A1	2	1.10E-05	7.35E-03
SDHB	2	2.78E-05	8.90E-03
DAB1	2	1.39E-05	9.13E-03
ZFP42	2	2.63E-05	1.02E-02
OR10G8	2	2.81E-05	1.03E-02
PPM1B	2	1.58E-05	1.04E-02
PLCXD3	2	2.56E-05	1.07E-02
MMP16	2	1.29E-05	1.08E-02
PYHIN1	2	1.57E-05	1.11E-02
VEZF1	2	1.56E-05	1.12E-02
ZNF543	2	1.33E-05	1.18E-02
CORO2B	2	1.60E-05	1.21E-02
COL11A1	4	7.02E-06	1.43E-02
LILRB5	2	1.32E-05	1.83E-02
CDKAL1	2	1.27E-05	1.96E-02
FAM107B	2	2.54E-05	2.01E-02
SPRYD5	2	1.69E-05	2.15E-02
LMBRD2	2	1.07E-05	2.19E-02
PRPF4B	2	7.42E-06	2.45E-02
ZNF676	2	1.30E-05	2.53E-02
IL1RAPL1	2	1.07E-05	2.59E-02
FAM160A2	2	7.97E-06	3.11E-02
LRCH4	2	1.14E-05	3.20E-02
SLC37A3	2	1.36E-05	3.31E-02
DACH2	2	1.22E-05	3.96E-02
PROC	2	1.58E-05	4.39E-02
KIF2B	2	1.15E-05	4.42E-02
NDUFA13	2	2.77E-05	4.65E-02
KBTBD5	2	1.22E-05	4.96E-02
PCCB	2	1.26E-05	5.64E-02
RGAG1	2	5.28E-06	6.11E-02
TKTL2	2	1.20E-05	6.93E-02
TPTE	2	1.17E-05	7.03E-02
PCDHB3	2	9.48E-06	7.41E-02
AMPH	2	9.51E-06	8.62E-02
KIF21A	2	3.60E-06	9.33E-02
GRIN2A	2	6.19E-06	9.69E-02
SIPA1L1	2	3.63E-06	1.08E-01
IMPG2	2	5.17E-06	1.08E-01
ATP8A2	2	5.10E-06	1.16E-01
ZNF107	2	8.06E-06	1.30E-01
SPICE1	2	6.59E-06	1.39E-01
PREX2	2	4.66E-06	1.48E-01
HCN1	2	7.17E-06	1.52E-01
TPR	2	2.26E-06	1.62E-01
KIF17	2	6.01E-06	1.63E-01
AOX1	2	3.89E-06	2.39E-01
FMN2	2	3.18E-06	2.57E-01
ZNF804B	2	3.97E-06	2.63E-01
TAF1L	2	2.89E-06	2.74E-01
WNK1	2	2.20E-06	3.25E-01
TMEM2	2	3.42E-06	3.28E-01
CD36	2	3.11E-06	3.70E-01
LAMB1	2	2.36E-06	3.82E-01
SYTL2	2	2.40E-06	4.04E-01
LCT	2	1.65E-06	5.65E-01
KIAA1109	2	0.00E+00	1.00E+00
<i>MDN1</i>	2	0.00E+00	1.00E+00
UBR4	2	0.00E+00	1.00E+00

Supplementary Table 14. Sortable Summary of Mutated Sample Gene-Set Enrichment Analysis

Category	Estimated False Discovery Rate								
	AC nonsense, frameshift, or low-SIFT-			Common, non-silent			SCC- specific AC-specific		
	All nonsense, frameshift, or low-SIFT-score missense	SCC nonsense, frameshift, or low-SIFT-score missense	nonsense, frameshift, or low-SIFT- score missense	Non- smokers	log10(Aco)- log10(SCC)	Common, non-silent	SCC- specific non-silent	AC-specific non-silent	log10(Aco)- log10(SCC)
EML4/ALK fusion protein in non smoking-related lung cancer	9E-17	4E-08	1E-08	8E-02	(0)	3E-19	1E+00	1E-02	(2)
Cell cycle_Role of 14-3-3 proteins in cell cycle regulation	6E-16	7E-10	9E-06	1E-01	4	1E-15	1E+00	1E+00	-
Ding et al 2008 Lung AC pathway, Figure 6	6E-16	4E-08	3E-07	8E-02	1	2E-20	1E+00	1E+00	-
DNA damage_DNA-damage-induced responses	6E-16	4E-10	1E-05	3E-01	5	6E-19	1E+00	1E+00	-
Tissue factor signaling in Lung Cancer	8E-15	7E-08	9E-07	7E-02	1	1E-16	1E+00	1E-02	(2)
Proteolysis_Putative SUMO-1 pathway	3E-14	4E-10	5E-04	3E-01	6	6E-21	1E+00	1E+00	-
Gene Go Multiple Myeloma	4E-14	3E-07	8E-07	2E-01	0	5E-16	1E+00	8E-03	(2)
Immune response_MIF in innate immunity response	4E-14	3E-09	7E-05	2E-01	4	5E-17	1E+00	1E+00	-
Gene Go Lung Cancer	7E-14	4E-08	1E-05	2E-01	3	3E-16	1E+00	2E-01	(1)
Bessarabova et al 2011 Pancreatic Driver Mutations	1E-13	1E-07	7E-06	1E-01	2	2E-20	2E-02	6E-02	0
HGF signaling in pancreatic cancer	2E-13	2E-07	5E-06	1E-01	1	2E-18	1E+00	1E+00	-
Bessarabova et al 2011 Breast Driver Mutations	2E-13	5E-08	3E-05	2E-01	3	8E-19	1E-05	1E+00	5
DNA damage_Role of SUMO in p53 regulation	2E-13	9E-10	9E-04	2E-01	6	5E-20	1E+00	1E+00	-
Jones et al 2008 Apoptosis	2E-13	2E-07	9E-06	1E-01	2	8E-10	1E+00	7E-02	(1)
Bessarabova et al 2011 Colon Driver Mutations	3E-13	7E-06	4E-07	2E-01	(1)	8E-19	1E+00	2E-04	(4)
ChemoresistancepathwaysmediatedbyconstitutiveactivationofPI3Kp;	7E-13	9E-10	2E-03	8E-02	6	6E-13	1E+00	1E+00	-
DNA damage_ATM/ATR regulation of G1/S checkpoint	7E-13	2E-08	2E-04	1E-01	4	1E-15	1E+00	1E+00	-
DNA Damage Control	1E-12	3E-06	5E-06	2E-01	0	2E-14	7E-03	1E+00	2
Bessarabova et al 2011 GBM Driver Mutations	1E-12	5E-08	1E-04	8E-02	3	3E-18	1E+00	1E+00	-
Apoptosis and survival_Role of CDK5 in neuronal death and survival	3E-12	1E-06	1E-05	8E-02	1	3E-15	1E+00	1E+00	-
Apoptosis	4E-12	7E-06	4E-06	3E-01	(0)	3E-16	2E-02	1E+00	2
Gene Go Pancreatic Cancer	5E-12	4E-07	7E-05	3E-01	2	3E-11	8E-01	3E-01	(0)
Transcription_P53 signaling pathway	7E-12	7E-08	4E-04	7E-02	4	9E-19	1E+00	1E+00	-
Signal transduction_AKT signaling	7E-12	7E-08	4E-04	7E-02	4	9E-15	1E+00	1E+00	-
TGF-beta signaling in Disease	7E-12	2E-07	1E-04	1E-01	3	3E-16	1E+00	1E+00	-
HBV-dependent NF-kB and PI3K/AKT pathways leading to HCC	7E-12	2E-07	1E-04	1E-01	3	3E-16	1E+00	1E+00	-
LKB1 signaling pathway in lung cancer cells	8E-12	7E-10	1E-02	8E-02	7	4E-15	1E+00	1E+00	-
vogelstein_02_DNA damagecontrol	2E-11	7E-07	1E-04	8E-02	2	8E-15	1E+00	1E+00	-
KRAS signaling in pancreatic cancer	2E-11	3E-06	3E-05	7E-02	1	2E-14	1E+00	1E-02	(2)
Gene Go HCC	2E-11	3E-06	3E-05	3E-01	1	2E-10	2E-02	3E-01	1
TGF-beta signaling	2E-11	3E-05	5E-06	1E-01	(1)	5E-12	1E+00	6E-02	(1)
Jones et al 2008 JNK signaling pathway	2E-11	2E-08	4E-03	1E-01	5	9E-20	1E+00	1E+00	-
Signal transduction_JNK pathway	2E-11	2E-08	4E-03	1E-01	5	9E-20	1E+00	1E+00	-
JNK signaling in Lung	4E-11	2E-07	7E-04	7E-02	4	3E-21	1E+00	1E+00	-
Signal transduction_PTEN pathway	4E-11	2E-07	7E-04	7E-02	4	6E-14	1E+00	1E+00	-
Gene Go Gastric Cancer Gene Sets	5E-11	4E-05	1E-05	3E-01	(1)	2E-13	1E+00	1E+00	-
DNA damage_Role of Brca1 and Brca2 in DNA repair	7E-11	1E-06	3E-04	8E-02	2	3E-15	1E+00	1E+00	-
Development_Neutrophin family signaling	7E-11	1E-06	3E-04	8E-02	2	3E-15	1E+00	1E+00	-
Jones et al 2008 Reg. of G1/S Phase Transition	9E-11	3E-06	1E-04	5E-01	2	8E-08	6E-01	6E-03	(2)
RASgroup	1E-10	4E-07	8E-04	1E+00	3	3E-07	8E-01	3E-01	(0)
Development_Leptin signaling via PI3K-dependent pathway	2E-10	5E-05	2E-05	1E+00	(0)	4E-02	1E+00	1E+00	-
Cell adhesion_ECM remodeling	4E-10	2E-07	4E-03	1E+00	4	2E-04	7E-04	1E+00	3
Mechanisms of resistance to EGFR inhibitors in lung cancer	6E-09	2E-04	7E-05	1E+00	(0)	7E-02	1E+00	2E-02	(2)
MAPK Signaling	7E-09	3E-04	7E-05	1E+00	(1)	3E-06	1E+00	3E-04	(4)
Jones et al 2008 Cell Adhesion	8E-09	2E-04	1E-04	1E+00	(0)	9E-12	4E-01	4E-03	(2)
Genentech AACR 2011 GPCR Lung Cancer Genes	2E-08	3E-06	8E-03	1E+00	3	2E-04	1E+00	1E+00	-
Cell Adhesion	2E-08	4E-04	1E-04	1E+00	(0)	1E-06	2E-01	1E+00	1
PIP3 signaling	4E-08	1E-04	7E-04	1E+00	1	6E-03	1E+00	1E+00	-
Apoptosis and survival_BAD phosphorylation	4E-08	5E-06	9E-03	1E+00	3	5E-02	4E-02	1E+00	1
cAMP signaling	5E-08	6E-04	1E-04	1E+00	(1)	1E-03	1E+00	1E+00	-
Jones et al 2008 Small GPTases	5E-08	1E-03	1E-04	9E-02	(1)	3E-09	5E-03	8E-02	1
Integrin signaling	8E-08	1E-04	1E-03	1E+00	1	1E-07	4E-01	1E+00	0
GPCRgroup	1E-07	2E-03	1E-04	8E-01	(1)	3E-10	1E+00	1E-02	(2)
Role of alpha-4 beta-6 integrins in carcinoma progression	2E-07	9E-05	4E-03	1E+00	2	2E-04	8E-02	1E+00	1
Transcription_CREM signaling in testis	4E-07	8E-05	8E-03	1E+00	2	2E-04	3E-02	1E+00	1
PI3K signaling in gastric cancer	4E-07	1E-03	5E-04	1E+00	(0)	5E-02	1E+00	1E+00	-
Cell adhesion_Integrin-mediated cell adhesion and migration	7E-07	7E-05	1E-02	1E+00	2	9E-06	2E-01	1E+00	1
ERBB family and HGF signaling in gastric cancer	7E-07	4E-03	1E-04	1E+00	(1)	9E-02	1E+00	1E+00	-
vogelstein_09_invasion	8E-07	3E-04	5E-03	6E-01	1	4E-12	2E-03	3E-01	2
Transcription_PPAR Pathway	1E-06	2E-03	9E-04	1E+00	(0)	6E-02	1E+00	1E+00	-
Regulation of lipid metabolism_Insulin signaling:generic cascades	1E-06	2E-04	1E-02	1E+00	2	6E-02	1E+00	1E+00	-
Non-genomic signaling of ESR2 membrane in lung cancer cells	1E-06	2E-04	1E-02	1E+00	2	6E-02	1E+00	1E+00	-
Cell adhesion_Ephrin signaling	2E-06	5E-04	5E-03	1E+00	1	3E-11	1E+00	1E+00	-
Signal transduction_cAMP signaling	2E-06	2E-04	1E-02	1E+00	2	3E-05	1E+00	1E+00	-
G-protein signaling, not KRAS	3E-06	3E-03	7E-04	1E+00	(1)	1E-04	1E+00	1E-01	(1)
GTPases	3E-06	7E-03	3E-04	1E+00	(1)	2E-04	1E+00	3E-02	(2)
Jones et al 2008 Integrin signaling	3E-06	2E-04	2E-02	1E+00	2	2E-05	2E-01	1E+00	1
Genentech AACR 2011 GPCR Lung Cancer Genes	3E-06	8E-04	6E-03	1E+00	1	7E-06	1E+00	1E+00	-
KRAS signaling in lung cancer	3E-06	8E-04	6E-03	1E+00	1	4E-02	1E+00	1E-02	(2)
Proteolysis_Role of Parkin in the Ubiquitin-Proteasomal Pathway	3E-06	5E-05	5E-02	1E+00	3	1E+00	3E-02	1E+00	2

EGFR signaling pathway in LungCancer	3E-06	8E-04	6E-03	1E+00	1	1E+00	1E+00	1E+00	-
Development_Ligand-independent activation of ESR1 and ESR2	4E-06	3E-03	2E-03	1E+00	(0)	8E-02	1E+00	1E+00	-
Transcription_CREB pathway	5E-06	1E-03	5E-03	1E+00	1	3E-04	1E+00	1E+00	-
Neurophysiological process_PGE2-induced pain processing	6E-06	4E-04	2E-02	1E+00	2	9E-02	6E-02	1E+00	1
Notch Signaling	6E-06	1E-03	8E-03	1E+00	1	5E-02	1E+00	1E+00	-
Immune response_Function of MEF2 in T lymphocytes	6E-06	1E-03	8E-03	1E+00	1	1E+00	1E+00	1E-02	(2)
Integrins in Disease	9E-06	5E-04	2E-02	1E+00	2	2E-02	6E-02	1E+00	1
Translation_Non-genomic (rapid) action of Androgen Receptor	9E-06	5E-04	2E-02	1E+00	2	1E+00	1E+00	1E+00	-
GPCR	1E-05	1E-02	6E-04	1E+00	(1)	8E-08	1E-01	1E+00	1
Development_Hedgehog and PTH signaling pathways in bone and car	1E-05	1E-04	7E-02	1E+00	3	3E-04	1E+00	1E+00	-
Jones et al 2008 Notch and WNT signaling	1E-05	2E-04	4E-02	1E+00	2	5E-04	1E+00	1E+00	-
G-protein signaling_G-Protein beta/gamma signaling cascades	1E-05	4E-03	4E-03	1E+00	(0)	2E-06	1E+00	1E+00	-
G-protein signaling_G-Protein alpha-12 signaling pathway	1E-05	4E-03	4E-03	1E+00	(0)	2E-06	1E+00	1E+00	-
Regulation of degradation of deltaF508 CFTR in CF	1E-05	4E-04	4E-02	1E+00	2	1E+00	2E-02	1E+00	2
Cell adhesion_Endothelial cell contacts by non-junctional mechanism	1E-05	2E-06	5E-01	1E+00	5	6E-06	7E-02	1E+00	1
Development_G-Proteins mediated regulation MAPK-ERK signaling	2E-05	2E-04	8E-02	1E+00	3	5E-04	1E+00	1E+00	-
Signal transduction_Erk Interactions: Inhibition of Erk	2E-05	2E-03	1E-02	1E+00	1	6E-02	4E-02	1E+00	1
InfluenceofsmokingonactivationofEGFRsignalinginlungcancer	2E-05	2E-03	1E-02	1E+00	1	6E-02	1E+00	1E+00	-
Development_Notch Signaling Pathway	2E-05	2E-03	1E-02	1E+00	1	6E-02	1E+00	1E+00	-
EIF	2E-05	2E-03	1E-02	1E+00	1	1E+00	1E+00	1E+00	-
Development_Role of HDAC and calcium/calmodulin-dependent kina	2E-05	2E-04	8E-02	1E+00	3	1E+00	1E+00	1E+00	-
Cell adhesion_Cell-matrix glycoconjugates	2E-05	5E-04	4E-02	1E+00	2	4E-06	3E-02	1E+00	2
Inhibitory action of Lipoxin A4 on PDGF, EGF and LTD4 signaling	2E-05	6E-03	5E-03	1E+00	(0)	3E-02	1E+00	1E+00	-
Development_CNTF receptor signaling	2E-05	5E-04	4E-02	1E+00	2	3E-02	1E+00	1E+00	-
Development_ERBB-family signaling	2E-05	6E-03	5E-03	1E+00	(0)	1E+00	1E+00	1E+00	-
Stimulation of TGF-beta signaling in lung cancer	2E-05	5E-04	4E-02	1E+00	2	1E+00	1E+00	1E+00	-
Development_Beta-adrenergic receptors signaling via cAMP	3E-05	2E-03	1E-02	1E+00	1	3E-05	1E+00	1E+00	-
wtCFTR and delta508-CFTR traffic / Generic schema (norm and CF)	3E-05	2E-03	1E-02	1E+00	1	9E-03	1E+00	1E+00	-
Cytoskeleton remodeling_Integrin outside-in signaling	3E-05	1E-04	2E-01	1E+00	3	3E-02	8E-02	1E+00	1
Cell adhesion_Integrin inside-out signaling	4E-05	3E-04	1E-01	1E+00	3	2E-09	1E+00	1E+00	-
Cell adhesion_Plasmin signaling	4E-05	3E-03	1E-02	1E+00	1	5E-05	5E-02	1E+00	1
Neurophysiological process_Receptor-mediated axon growth repuls	4E-05	2E-02	2E-03	1E+00	(1)	8E-04	1E+00	1E+00	-
Myerson AACR 2001 Targets	4E-05	2E-01	7E-05	1E+00	(3)	7E-04	1E+00	1E+00	-
EGFR signaling via small GTPases	4E-05	2E-01	7E-05	1E+00	(3)	1E+00	1E+00	7E-03	(2)
Development_EGFR signaling via PIP3	4E-05	2E-03	2E-02	1E+00	1	1E+00	1E+00	1E+00	-
Development_Slit-Robo signaling	4E-05	3E-01	2E-05	1E+00	(4)	7E-06	1E+00	1E-02	(2)
Cell adhesion_PLAU signaling	4E-05	8E-03	6E-03	1E+00	(0)	4E-02	1E+00	1E+00	-
Inhibitory action of Lipoxins on neutrophil migration	4E-05	1E-03	4E-02	1E+00	1	1E-06	1E+00	1E+00	-
Jones et al 2008 KRAS signaling	6E-05	3E-03	2E-02	1E+00	1	9E-02	1E+00	2E-02	(2)
Development_A1 receptor signaling	7E-05	1E-02	8E-03	1E+00	(0)	9E-09	1E+00	1E+00	-
Immune response_ICOS pathway in T-helper cell	7E-05	1E-02	8E-03	1E+00	(0)	5E-03	1E+00	1E+00	-
Transcription_Ligand-Dependent Transcription of Retinoid-Target ge	7E-05	1E-02	8E-03	1E+00	(0)	5E-02	1E+00	1E+00	-
Neurophysiological process_Glutamate regulation of Dopamine D1A	8E-05	4E-03	2E-02	1E+00	1	1E-03	6E-02	1E+00	1
Beta-2 adrenergic-dependent CFTR expression	9E-05	3E-03	3E-02	1E+00	1	2E-02	1E+00	1E+00	-
Glycolysis and gluconeogenesis (short map)	9E-05	3E-03	3E-02	1E+00	1	1E+00	1E+00	1E+00	-
Development_IGF-1 receptor signaling	9E-05	2E-04	2E-01	1E+00	3	1E+00	1E+00	1E+00	-
Apoptosis and survival_Anti-apoptotic action of membrane-bound ES	1E-04	1E-02	1E-02	1E+00	0	1E+00	1E+00	1E+00	-
Development_A3 receptor signaling	1E-04	1E-02	9E-03	1E+00	(0)	2E-08	1E+00	1E+00	-
Development_Beta-adrenergic receptors regulation of ERK	1E-04	1E-02	9E-03	1E+00	(0)	2E-05	1E+00	1E+00	-
Development_Endothelin-1/EDNRA transactivation of EGFR	1E-04	1E-04	4E-01	1E+00	3	5E-02	1E+00	1E+00	-
Development_Growth hormone signaling via PI3K/AKT and MAPK cas	2E-04	4E-03	4E-02	1E+00	1	3E-02	1E+00	1E+00	-
Development_HGF signaling pathway	2E-04	4E-03	4E-02	1E+00	1	3E-02	1E+00	1E+00	-
Transcription_Androgen Receptor nuclear signaling	2E-04	1E-02	1E-02	1E+00	(0)	6E-02	1E+00	1E+00	-
Cell adhesion_Gap junctions	2E-04	2E-03	8E-02	1E+00	2	1E+00	1E+00	1E+00	-
Cell adhesion_Tight junctions	2E-04	7E-03	3E-02	1E+00	1	2E-04	1E+00	1E+00	-
Regulation of CFTR activity (norm and CF)	3E-04	2E-03	9E-02	1E+00	2	7E-02	5E-02	1E+00	1
G-protein signaling_RhoA regulation pathway	3E-04	5E-04	3E-01	1E+00	3	1E-04	1E+00	1E+00	-
Translation_Regulation of EIF2 activity	3E-04	6E-03	4E-02	1E+00	1	1E+00	1E+00	1E+00	-
Transcription_Receptor-mediated HIF regulation	3E-04	5E-04	3E-01	1E+00	3	1E+00	1E+00	1E+00	-
Signal transduction_Calcium signaling	4E-04	3E-03	1E-01	1E+00	2	2E-06	1E+00	1E+00	-
Development_A2B receptor: action via G-protein alpha s	4E-04	2E-02	1E-02	1E+00	(0)	8E-04	1E+00	1E+00	-
Signal transduction_PKA signaling	4E-04	2E-02	1E-02	1E+00	(0)	1E-02	1E+00	1E+00	-
Development_A2A receptor signaling	5E-04	8E-03	5E-02	1E+00	1	2E-04	1E+00	1E+00	-
Regulation of VEGF expression in lung cancer	5E-04	8E-03	5E-02	1E+00	1	3E-03	1E+00	1E+00	-
G-protein signaling_Rap1A regulation pathway	5E-04	6E-02	6E-03	1E+00	(1)	4E-02	1E+00	1E+00	-
wtCFTR and deltaF508 traffic / Membrane expression (norm and CF)	5E-04	8E-03	5E-02	1E+00	1	4E-02	1E+00	1E+00	-
Development_EGFR signaling pathway	5E-04	8E-03	5E-02	1E+00	1	1E+00	1E+00	1E+00	-
ATP/ITP metabolism	5E-04	2E-02	2E-02	1E+00	(0)	1E+00	1E+00	1E+00	-
Cytoskeleton remodeling_Keratin filaments	5E-04	3E-03	1E-01	1E+00	2	1E+00	1E+00	1E+00	-
Development_MAG-dependent inhibition of neurite outgrowth	6E-04	3E-02	2E-02	1E+00	(0)	1E-05	1E+00	1E+00	-
G-protein signaling_Regulation of CDC42 activity	6E-04	2E-03	2E-01	1E+00	2	2E-05	1E+00	1E+00	-
Regulation of CFTR gating (normal and CF)	6E-04	2E-02	2E-02	1E+00	(0)	2E-02	1E+00	1E+00	-
Immune response_IL-4 signaling pathway	6E-04	2E-03	2E-01	1E+00	2	1E+00	1E+00	1E+00	-
Immune response_IL-23 signaling pathway	7E-04	6E-03	1E-01	1E+00	1	1E+00	1E+00	1E+00	-
WNT Signaling	7E-04	2E-03	2E-01	1E+00	2	5E-04	1E+00	1E+00	-
Development_FGFR signaling pathway	7E-04	7E-02	8E-03	1E+00	(1)	5E-02	1E+00	1E+00	-
G-protein signaling_G-Protein alpha-s signaling cascades	7E-04	7E-02	8E-03	1E+00	(1)	5E-02	1E+00	1E+00	-
Immune response_IL-2 activation and signaling pathway	7E-04	1E-02	6E-02	1E+00	1	5E-02	1E+00	1E+00	-
Development_VEGF signaling via VEGFR2 - generic cascades	7E-04	1E-02	6E-02	1E+00	1	1E+00	1E+00	1E+00	-

Translation_Regulation of EIF4F activity	7E-04	1E-02	6E-02	1E+00	1	1E+00	1E+00	1E+00	-
Immune response_BCR pathway	7E-04	1E-03	3E-01	1E+00	2	1E+00	1E+00	1E+00	-
Jones et al 2008 TGF-beta signaling	9E-04	3E-02	2E-02	1E+00	(0)	1E-01	1E+00	1E+00	-
Immune response_Fc epsilon RI pathway	1E-03	1E-02	7E-02	1E+00	1	5E-02	1E+00	1E+00	-
Immune response_CD28 signaling	1E-03	1E-03	4E-01	1E+00	2	1E+00	1E+00	1E+00	-
Cytoskeleton remodeling_Fibronectin-binding integrins in cell motility	1E-03	3E-03	2E-01	1E+00	2	1E-03	1E+00	1E+00	-
Development_Flt3 signaling	1E-03	3E-02	3E-02	1E+00	(0)	2E-02	1E+00	1E+00	-
Immune response_IL-1 signaling pathway	1E-03	3E-02	3E-02	1E+00	(0)	2E-02	1E+00	1E+00	-
Transcription_Role of VDR in regulation of genes involved in osteoporosis	1E-03	3E-02	3E-02	1E+00	(0)	2E-02	1E+00	1E+00	-
Mechanisms of CFTR activation by S-nitrosoglutathione (normal and disease)	1E-03	3E-03	2E-01	1E+00	2	1E+00	2E-02	7E-03	(0)
Mechanisms of KRAS addiction in Lung Cancer Cells	1E-03	3E-02	3E-02	1E+00	(0)	1E+00	1E+00	7E-03	(2)
Development_Angiopoietin - Tie2 signaling	1E-03	3E-03	2E-01	1E+00	2	1E+00	1E+00	1E+00	-
Immune response_TLR signaling pathways	1E-03	3E-03	2E-01	1E+00	2	1E+00	1E+00	1E+00	-
Cytoskeleton remodeling_Role of PKA in cytoskeleton reorganisation	1E-03	1E-01	1E-02	1E+00	(1)	2E-05	1E+00	1E+00	-
Cytoskeleton remodeling_Neurofilaments	1E-03	1E-01	1E-02	1E+00	(1)	6E-02	1E+00	1E-02	(2)
Cytoskeleton remodeling_FAK signaling	1E-03	2E-03	4E-01	1E+00	2	6E-02	1E+00	1E+00	-
Cytoskeleton remodeling_Regulation of actin cytoskeleton by Rho GTPases	2E-03	2E-02	6E-02	1E+00	0	6E-06	1E+00	1E+00	-
Cell adhesion_Endothelial cell contacts by junctional mechanisms	2E-03	6E-04	1E+00	1E+00	3	3E-06	1E+00	1E+00	-
G-protein signaling_Rap1B regulation pathway	2E-03	1E-01	1E-02	1E+00	(1)	7E-03	1E+00	1E+00	-
PGE2 and Disease	2E-03	1E-02	1E-01	1E+00	1	1E+00	1E+00	1E+00	-
G-protein signaling_Rac2 regulation pathway	2E-03	1E-02	1E-01	1E+00	1	1E+00	1E+00	1E+00	-
IL-1 beta-dependent CFTR expression	2E-03	1E-02	1E-01	1E+00	1	1E+00	1E+00	1E+00	-
Immune response_IL-10 signaling pathway	2E-03	1E-02	1E-01	1E+00	1	1E+00	1E+00	1E+00	-
G-protein signaling_Regulation of p38 and JNK signaling mediated by Src family kinases	2E-03	4E-02	4E-02	1E+00	(0)	5E-08	1E+00	1E+00	-
Development_ACM2 and ACM4 activation of ERK	2E-03	4E-02	4E-02	1E+00	(0)	2E-06	1E+00	1E+00	-
Mucin expression in CF via TLRs, EGFR signaling pathways	2E-03	3E-01	4E-03	1E+00	(2)	3E-02	1E+00	1E+00	-
Transcription_Ligand-dependent activation of the ESR1/SP1 pathway	2E-03	4E-02	4E-02	1E+00	(0)	3E-02	1E+00	1E+00	-
KRAS signaling	2E-03	3E-01	4E-03	1E+00	(2)	1E+00	1E+00	8E-03	(2)
Putative role of Estrogen receptor and Androgen receptors signaling in prostate cancer	2E-03	4E-02	4E-02	1E+00	(0)	1E+00	1E+00	1E+00	-
EMT in Disease	2E-03	4E-03	3E-01	1E+00	2	1E+00	1E+00	1E+00	-
Translation_Insulin regulation of translation	2E-03	4E-03	3E-01	1E+00	2	1E+00	1E+00	1E+00	-
Hedgehog signaling	2E-03	2E-03	4E-01	1E+00	2	7E-02	1E+00	1E+00	-
Immune response_NFAT in immune response	2E-03	2E-02	9E-02	1E+00	1	1E+00	1E+00	1E+00	-
Cell cycle_Role of APC in cell cycle regulation	3E-03	3E-01	5E-03	1E+00	(2)	3E-02	1E+00	1E+00	-
Development_Role of Activin A in cell differentiation and proliferation	3E-03	5E-02	4E-02	1E+00	(0)	3E-02	1E+00	1E+00	-
G-protein signaling_G-Protein alpha-i signaling cascades	3E-03	5E-02	4E-02	1E+00	(0)	3E-02	1E+00	1E+00	-
PKC GPCR	3E-03	6E-03	3E-01	1E+00	2	3E-02	1E+00	1E+00	-
Retinol metabolism	3E-03	6E-03	3E-01	1E+00	2	3E-01	1E+00	1E+00	-
G-protein signaling_K-RAS regulation pathway	3E-03	3E-01	5E-03	1E+00	(2)	1E+00	1E+00	1E-02	(2)
Development_NOTCH1-mediated pathway for NF-KB activity modulation	3E-03	5E-02	4E-02	1E+00	(0)	1E+00	1E+00	1E+00	-
Development_VEGF-family signaling	3E-03	5E-02	4E-02	1E+00	(0)	1E+00	1E+00	1E+00	-
Development_VEGF signaling and activation	3E-03	6E-03	3E-01	1E+00	2	1E+00	1E+00	1E+00	-
Cytoskeleton remodeling_Role of PDGFs in cell migration	4E-03	6E-02	6E-02	1E+00	0	1E+00	1E+00	1E+00	-
Immune response_CCR3 signaling in eosinophils	4E-03	1E-01	2E-02	1E+00	(1)	1E-06	1E+00	1E+00	-
Transcription_Transcription factor Tubby signaling pathways	4E-03	1E-03	1E+00	1E+00	3	1E-02	1E+00	1E+00	-
Development_Glucocorticoid receptor signaling	4E-03	1E-03	1E+00	1E+00	3	1E+00	2E-02	1E+00	2
Proteolysis_Putative ubiquitin pathway	4E-03	1E-03	1E+00	1E+00	3	1E+00	2E-02	1E+00	2
Cytoskeleton remodeling_Reverse signaling by ephrin B	4E-03	2E-01	2E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Apoptosis and survival_Caspase cascade	4E-03	2E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Apoptosis and survival_NGF signaling pathway	4E-03	2E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Cholesterol and Sphingolipids transport / Transport from Golgi and ER	4E-03	2E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Development_PDGF signaling via STATs and NF-kB	4E-03	2E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Involvement of VEGF signaling in the progression of lung cancer	4E-03	2E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Development_Angiotensin signaling via PYK2	4E-03	8E-03	3E-01	1E+00	2	7E-06	1E+00	1E+00	-
vogelstein_04_hedgehog	4E-03	6E-02	5E-02	1E+00	(0)	4E-02	1E+00	1E+00	-
Development_Endothelin-1/EDNRA signaling	4E-03	6E-02	5E-02	1E+00	(0)	1E+00	1E+00	1E+00	-
Development_TGF-beta receptor signaling	4E-03	6E-02	5E-02	1E+00	(0)	1E+00	1E+00	1E+00	-
Transport_Clathrin-coated vesicle cycle	4E-03	1E-01	2E-02	1E+00	(1)	9E-02	1E+00	1E+00	-
Development_EDNRB signaling	5E-03	7E-02	6E-02	1E+00	(0)	1E-05	1E+00	1E+00	-
Cell cycle_Spindle assembly and chromosome separation	5E-03	4E-01	8E-03	1E+00	(2)	5E-02	1E+00	1E+00	-
Immune response_IFN gamma signaling pathway	5E-03	7E-02	6E-02	1E+00	(0)	5E-02	1E+00	1E+00	-
Immune response_CD16 signaling in NK cells	5E-03	7E-02	6E-02	1E+00	(0)	5E-02	1E+00	1E+00	-
Signal transduction_IP3 signaling	5E-03	1E-02	3E-01	1E+00	2	5E-02	1E+00	1E+00	-
Translation_Translation regulation by Alpha-1 adrenergic receptors	5E-03	1E-02	3E-01	1E+00	2	5E-02	1E+00	1E+00	-
G-protein signaling_N-RAS regulation pathway	5E-03	4E-01	8E-03	1E+00	(2)	1E+00	1E+00	1E+00	-
Slit/Robo Signaling	6E-03	1E+00	2E-03	1E+00	(3)	5E-07	1E+00	1E+00	-
Inhibition of TGF-beta signaling in lung cancer	6E-03	2E-02	2E-01	1E+00	1	2E-05	1E+00	1E+00	-
EPO-induced MAPK pathway	6E-03	1E+00	2E-03	1E+00	(3)	7E-04	1E+00	7E-03	(2)
Apoptosis and survival_FAS signaling cascades	6E-03	2E-01	2E-02	1E+00	(1)	2E-02	1E+00	1E+00	-
Development_Dopamine D2 receptor transactivation of EGFR	6E-03	2E-02	2E-01	1E+00	1	2E-02	1E+00	1E+00	-
Development_Activation of ERK by Alpha-1 adrenergic receptors	6E-03	2E-02	2E-01	1E+00	1	2E-02	1E+00	1E+00	-
Development_Ligand-dependent activation of the ESR1/AP-1 pathway	6E-03	2E-03	1E+00	1E+00	3	2E-02	1E+00	1E+00	-
CFTR folding and maturation (norm and CF)	6E-03	2E-03	1E+00	1E+00	3	1E+00	2E-02	1E+00	2
Development_FGF-family signaling	6E-03	2E-01	2E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Immune response_IL-22 signaling pathway	6E-03	2E-01	2E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Development_Thrombopoietin-regulated cell processes	6E-03	2E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
G-protein signaling_Cross-talk between Ras-family GTPases	6E-03	2E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Transcription_NF-kB signaling pathway	6E-03	2E-03	1E+00	1E+00	3	1E+00	1E+00	1E+00	-
Signal transduction_Activation of PKC via G-Protein coupled receptor	7E-03	1E-02	4E-01	1E+00	1	5E-02	1E+00	1E+00	-



Regulation of G1/S transition	7E-03	1E-03	1E+00	1E+00	3	1E+00	1E+00	1E+00	-
Ras family GTPases in kinase cascades (scheme)	1E-02	1E+00	3E-03	1E+00	(3)	2E-02	1E+00	7E-03	(2)
Regulation of G1/S transition (part 2)	1E-02	3E-02	2E-01	1E+00	1	2E-02	1E+00	7E-03	(2)
CFTR-dependent regulation of ion channels in Airway Epithelium (nor	1E-02	3E-02	2E-01	1E+00	1	2E-02	1E+00	1E+00	-
Development_GDNF family signaling	1E-02	3E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Development_PDGF signaling via MAPK cascades	1E-02	3E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
G-protein signaling_H-RAS regulation pathway	1E-02	3E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Transcription_Sin3 and NuRD in transcription regulation	1E-02	3E-02	2E-01	1E+00	1	1E+00	1E+00	1E+00	-
Signal transduction_Activin A signaling regulation	1E-02	3E-03	1E+00	1E+00	3	1E+00	1E+00	1E+00	-
G-protein signaling_Rap2B regulation pathway	1E-02	6E-03	1E+00	1E+00	2	1E+00	1E+00	1E+00	-
Development_Angiotensin activation of ERK	1E-02	4E-02	3E-01	1E+00	1	5E-08	1E+00	1E+00	-
Immune response_Role of Integrins in NK cells cytotoxicity	1E-02	3E-01	4E-02	1E+00	(1)	3E-02	1E+00	1E+00	-
Development_Alpha-2 adrenergic receptor activation of ERK	1E-02	4E-02	3E-01	1E+00	1	3E-02	1E+00	1E+00	-
Development_Prolactin receptor signaling	1E-02	4E-02	3E-01	1E+00	1	1E+00	1E+00	1E+00	-
Cell adhesion_Cadherin-mediated cell adhesion	2E-02	1E-02	1E+00	1E+00	2	3E-06	1E+00	1E+00	-
Inhibitory action of Lipoxins on Superoxide production in neutrophils	2E-02	1E+00	1E-02	1E+00	(2)	2E-04	1E+00	1E+00	-
Anandamide biosynthesis and metabolism	2E-02	1E-02	1E+00	1E+00	2	7E-03	1E+00	1E+00	-
Development_Angiotensin signaling via beta-Arrestin	2E-02	1E-02	1E+00	1E+00	2	7E-03	1E+00	1E+00	-
Anti-apoptotic action of nuclear ESR1 and ESR2	2E-02	1E+00	1E-02	1E+00	(2)	1E+00	1E+00	6E-03	(2)
Bacterial infections in CF airways	2E-02	1E-01	1E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Cytoskeleton remodeling_RalA regulation pathway	2E-02	1E-01	1E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
G-protein signaling_TC21 regulation pathway	2E-02	1E-01	1E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
G-protein signaling_RAC1 in cellular process	2E-02	1E-02	1E+00	1E+00	2	1E+00	1E+00	1E+00	-
Immune response_Oncostatin M signaling via MAPK in human cells	3E-02	3E-01	5E-02	1E+00	(1)	2E-04	1E+00	1E+00	-
Immune response_T cell receptor signaling pathway	3E-02	7E-02	3E-01	1E+00	1	1E+00	1E+00	1E+00	-
Cell cycle (generic schema)	4E-02	2E-01	2E-01	1E+00	(0)	1E-02	1E+00	6E-03	(2)
Immune response_IL-12-induced IFN-gamma production	4E-02	2E-01	2E-01	1E+00	(0)	1E-02	1E+00	1E+00	-
Beta-alanine metabolism	4E-02	2E-02	1E+00	1E+00	2	1E-02	1E+00	1E+00	-
NO-dependent CFTR activation (normal and CF)	4E-02	2E-01	2E-01	1E+00	(0)	1E+00	1E+00	6E-03	(2)
Development_Leptin signaling via JAK/STAT and MAPK cascades	4E-02	1E+00	2E-02	1E+00	(2)	1E+00	1E+00	1E+00	-
Immune response_Antigen presentation by MHC class II	4E-02	2E-01	2E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Immune response_IL-9 signaling pathway	4E-02	2E-01	2E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Prostaglandin 2 biosynthesis and metabolism FM	4E-02	2E-01	2E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Apoptosis and survival_TNFR1 signaling pathway	4E-02	2E-02	1E+00	1E+00	2	1E+00	1E+00	1E+00	-
Cell Adhesion - Ephrin signaling	5E-02	2E-01	2E-01	1E+00	(0)	7E-04	1E+00	1E+00	-
Immune response_IL-3 activation and signaling pathway	5E-02	2E-01	2E-01	1E+00	(0)	2E-02	1E+00	1E+00	-
Cell cycle_Regulation of G1/S transition (part 1)	5E-02	2E-01	2E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
G-protein signaling_M-RAS regulation pathway	5E-02	2E-01	2E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Immune response_Bacterial infections in normal airways	5E-02	2E-01	2E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Immune response_Role of DAP12 receptors in NK cells	5E-02	2E-01	2E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
HETE and HPETE biosynthesis and metabolism	5E-02	2E-02	1E+00	1E+00	2	1E+00	1E+00	1E+00	-
G-protein signaling_G-Protein alpha-q signaling cascades	7E-02	3E-02	1E+00	1E+00	1	4E-05	1E+00	1E+00	-
Immune response_Oncostatin M signaling via JAK-Stat in human cells	7E-02	2E-01	2E-01	1E+00	(0)	2E-02	1E+00	1E+00	-
NAD metabolism	7E-02	3E-02	1E+00	1E+00	1	1E+00	2E-02	1E+00	2
Inhibitory action of Lipoxins and Resolvin E1 on neutrophil functions	8E-02	1E+00	6E-02	1E+00	(1)	8E-06	1E+00	1E+00	-
Cytoskeleton remodeling_RalB regulation pathway	8E-02	1E+00	6E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Delta508-CFTR traffic / Sorting endosome formation in CF	8E-02	1E+00	6E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Methionine metabolism	8E-02	1E+00	6E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Naphthalene metabolism	8E-02	1E+00	6E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Normal wtCFTR traffic / Sorting endosome formation	8E-02	1E+00	6E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Saturated fatty acid biosynthesis	8E-02	1E+00	6E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
wtCFTR and deltaF508 traffic / Late endosome and Lysosome (norm a	8E-02	1E+00	6E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Cytoskeleton remodeling_CDC42 in cellular processes	8E-02	6E-02	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
HCV-dependent transcription regulation leading to HCC	8E-02	6E-02	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
wtCFTR and delta508 traffic / Clathrin coated vesicles formation (nor	9E-02	3E-01	3E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Galactose metabolism	1E-01	3E-01	3E-01	1E+00	(0)	1E+00	3E-02	1E+00	2
Cell cycle_Start of DNA replication in early S phase	1E-01	1E+00	5E-02	1E+00	(1)	1E+00	1E+00	1E+00	-
Dichloroethylene metabolism	1E-01	1E+00	1E-01	1E+00	(1)	1E+00	1E+00	1E+00	-
Immune response_IFN alpha/beta signaling pathway	1E-01	1E+00	1E-01	1E+00	(1)	1E+00	1E+00	1E+00	-
Hypoxian and EMT Disase	1E-01	1E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Apoptosis and survival_Regulation of Apoptosis by Mitochondrial Pro	1E-01	1E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Cytokine production by Th17 cells in CF (Mouse model)	1E-01	1E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
G-protein signaling_Regulation of RAC1 activity	1E-01	1E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Immune response_IL-12 signaling pathway	1E-01	1E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Immune response_MIF-JAB1 signaling	1E-01	1E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Delta508-CFTR traffic / ER-to-Golgi in CF	2E-01	4E-01	3E-01	1E+00	(0)	5E-02	1E+00	1E+00	-
Normal wtCFTR traffic / ER-to-Golgi	2E-01	4E-01	3E-01	1E+00	(0)	5E-02	1E+00	1E+00	-
Apoptosis and survival_Apoptotic TNF-family pathways	2E-01	1E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
G-protein signaling_RhoB regulation pathway	2E-01	1E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Immune response_Lectin induced complement pathway	3E-01	1E+00	1E-01	1E+00	(1)	1E+00	1E+00	1E+00	-
DNA damage_NHEJ mechanisms of DSBs repair	3E-01	2E-01	1E+00	1E+00	1	1E-02	1E+00	1E+00	-
Glycogen metabolism	3E-01	1E+00	2E-01	1E+00	(1)	1E+00	1E+00	1E+00	-
Apoptosis and survival_APRIL and BAFF signaling	3E-01	2E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Apoptosis and survival_Anti-apoptotic TNFs/NF-kB/Bcl-2 pathway	3E-01	2E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Immune response_Alternative complement pathway	3E-01	5E-01	4E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Cell cycle_ESR1 regulation of G1/S transition	3E-01	2E-01	1E+00	1E+00	1	2E-05	1E+00	1E+00	-
Cell cycle_Transition and termination of DNA replication	3E-01	1E+00	2E-01	1E+00	(1)	1E+00	1E+00	1E+00	-
Glutathione metabolism	3E-01	2E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Tyrosine metabolism p.1 (dopamine)	3E-01	2E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-

Immune response_Antigen presentation by MHC class I	4E-01	1E+00	2E-01	1E+00	(1)	1E+00	1E+00	1E+00	-
Cell cycle_Role of SCF complex in cell cycle regulation	4E-01	3E-01	1E+00	1E+00	1	1E+00	1E+00	1E+00	-
Cell cycle_Chromosome condensation in prometaphase	5E-01	1E+00	3E-01	1E+00	(0)	1E+00	1E+00	1E-02	(2)
Immune response_Classical complement pathway	6E-01	1E+00	4E-01	1E+00	(0)	1E+00	1E+00	1E+00	-
Mucin expression in CF via IL-6, IL-17 signaling pathways	1E+00	1E+00	1E+00	1E+00	-	3E-03	1E+00	1E+00	-
2-Naphthylamine and 2-Nitronaphthalene metabolism	1E+00	1E+00	1E+00	1E+00	-	1E-01	1E+00	1E+00	-
EMT	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Acetaminophen metabolism	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Androstenedione and testosterone biosynthesis and metabolism p.1	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Apoptosis and survival_Anti-apoptotic TNFs/NF-kB/IAP pathway	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Apoptosis and survival_Lymphotoxin-beta receptor signaling	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Benzo[a]pyrene metabolism	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
CFTR translational fidelity (class I mutations)	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Chemotaxis_CXCR4 signaling pathway	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Cholesterol and Sphingolipids transport / Distribution to the intracell	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Cholesterol and Sphingolipids transport / Generic schema (normal an	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Cholesterol and Sphingolipids transport / Influx to the early endosom	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Cholesterol and Sphingolipids transport / Recycling to plasma membr	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Cytokine production by Th17 cells in CF	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Development_EPO-induced Jak-STAT pathway	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Development_Thrombopoetin signaling via JAK-STAT pathway	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Estradiol metabolism	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Estrogen biosynthesis	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Estrone metabolism	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Immune response_IL-6 signaling pathway	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Immune response_MIF-mediated glucocorticoid regulation	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Immune response_TLR3 and TLR4 induce TICAM1-specific signaling p	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Regulation of degradation of wt-CFTR	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Vitamin D2 (ergocalciferol) metabolism	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-
Lung Cancer General Scheme	1E+00	1E+00	1E+00	1E+00	-	1E+00	1E+00	1E+00	-

Supplementary Table 15. Mutation Type Distribution by Gene Set

category	Non-silent Mutations	Critical Mutations	Silent Mutations	Nonsilent/Silent Ratio	Critical/Silent Ratio	Nonsilent/Silent Pvalue	Critical/Silent Pvalue
KRAS signaling in pancreatic cancer	20	15	0	Inf	Inf	0.006	0.002
EML4/ALK fusion protein in nonsmoking-related lung cancer	19	16	0	Inf	Inf	0.008	0.001
Bessarabova Breast Driver Mutations	70	47	9	7.8	5.2	0.008	0.002
Cell adhesion_Plasmin signaling	18	14	0	Inf	Inf	0.010	0.003
DNA damage_ATM/ATR regulation of G1/S checkpoint	18	14	0	Inf	Inf	0.010	0.003
Jones et al 2008 JNK	18	13	0	Inf	Inf	0.010	0.005
Signal transduction_JNK pathway	18	13	0	Inf	Inf	0.010	0.005
Cell adhesion_ECM remodeling	23	17	1	23.0	17.0	0.017	0.006
Bessarabova Pancreatic Driver Mutations	55	42	7	7.9	6.0	0.018	0.002
Normal and pathological TGF-beta mediated regulation of cell proliferation	15	12	0	Inf	Inf	0.021	0.007
HBV-dependent NF-kB and PI3K/AKT pathways leading to HCC	15	12	0	Inf	Inf	0.021	0.007
Immune response_MIF in innate immunity response	14	12	0	Inf	Inf	0.027	0.007
Bessarabova Colon Driver Mutations	90	48	16	5.6	3.0	0.035	0.084
JNK signaling	25	17	2	12.5	8.5	0.038	0.022
Jones et al 2008 DNA damage control	24	19	2	12.0	9.5	0.045	0.011
DNA damage_DNA-damage-induced responses	12	11	0	Inf	Inf	0.046	0.011
Jones et al 2008 Invasion	192	109	38	5.1	2.9	0.046	0.023
Jones et al 2008 Integrin	43	28	6	7.2	4.7	0.051	0.030
Cell adhesion_Integrin-mediated cell adhesion and migration	38	24	5	7.6	4.8	0.053	0.040
Cytoskeleton remodeling_Integrin outside-in signaling	23	18	2	11.5	9.0	0.055	0.016
Proteolysis_Role of Parkin in the Ubiquitin-Proteasomal Pathway	11	10	0	Inf	Inf	0.059	0.016
RTK/RAS	87	53	17	5.1	3.1	0.073	0.056
Apoptosis and survival_Role of CDK5 in neuronal death and survival	16	13	1	16.0	13.0	0.075	0.025
Development_Neurotrophin family signaling	16	11	1	16.0	11.0	0.075	0.050
Development_Leptin signaling via PI3K-dependent pathway	10	10	0	Inf	Inf	0.076	0.016
DNA damage	56	39	10	5.6	3.9	0.090	0.029
Cell cycle_Role of 14-3-3 proteins in cell cycle regulation	15	14	1	15.0	14.0	0.093	0.018
HGF signaling in pancreatic cancer	15	13	1	15.0	13.0	0.093	0.025
DNA damage_Role of Brca1 and Brca2 in DNA repair	15	12	1	15.0	12.0	0.093	0.035
Tissue factor signaling in Lung Cancer	20	16	2	10.0	8.0	0.095	0.030
wtCFTR and deltaF508 traffic / Membrane expression (norm and CF)	9	9	0	Inf	Inf	0.099	0.024
Ding et al 2008 Lung Adenocarcinoma Pathway	29	23	4	7.3	5.8	0.102	0.024
Jones et al 2008 Apoptosis	42	32	7	6.0	4.6	0.104	0.023
DNA damage_Role of SUMO in p53 regulation	14	13	1	14.0	13.0	0.114	0.025

Supplementary Table 16. Core Cancer Pathway Summary Statistics

PathwayLabel	Mutations/		Mutated		Mutated		% of		% of Non-		% of SCC		% of ACO		Nonsynony/		Nonsynony/	
	Mutated Samples	Mutated Sample	Mutated Smokers Samples	Non- Smokers Samples	Mutated SCC Samples	Mutated Aco Samples	% of Samples Mutated	Smokers Samples Mutated	Smokers Samples Mutated	% of Samples Mutated	Smokers Samples Mutated	% of Sample Mutated	% of Sample Mutated	Nonsynony/ Synony Ratio	Nonsynony/ Synony Ratio (3.28)	Nonsynony/ Synony pvalue		
DNA Damage Control	14	1.7	13	1	8	6	45	48	25	67	32	18	5.5	0.003				
c-Jun N-terminal kinase signaling	13	1.3	12	1	9	4	42	44	25	75	21	infinity	infinity	0.006				
Invasion	21	9.1	20	1	11	10	68	74	25	92	53	5	1.4	0.035				
Integrin Signaling	12	3.6	12	0	7	5	39	44	0	58	26	7	2.0	0.064				
Ding 2008 Lung Adenocarcinoma	17	1.8	16	1	10	7	55	59	25	83	37	7	2.2	0.088				
Apoptosis	18	2.2	17	1	11	7	58	63	25	92	37	6	1.8	0.100				
Regulation of G1/S Phase Transition	23	6.3	21	2	12	11	74	78	50	100	58	4	1.2	0.187				
KRAS Signaling	9	1.9	9	0	5	4	29	33	0	42	21	6	1.7	0.280				
RTK/RAS	10	1.2	10	0	7	3	32	37	0	58	16	6	1.8	0.333				
Small GTPase-dependent signaling (not KRAS)	23	10.5	21	2	11	12	74	78	50	92	63	3	1.0	0.496				
TGF-beta Signaling	9	1.7	9	0	4	5	29	33	0	33	26	3	0.9	0.730				
Homophilic Cell Adhesion	15	4.9	15	0	8	7	48	56	0	67	37	3	0.9	0.794				
Hedgehog Signaling	6	1.2	6	0	4	2	19	22	0	33	11	2	0.7	0.814				
GPCR	7	1.6	7	0	4	3	23	26	0	33	16	2	0.7	0.815				
Notch/WNT Signaling	12	1.8	11	1	6	6	39	41	25	50	32	2	0.7	0.883				

Supplementary Table 17a:  
Drug × Druggable Target Matrix for Frequently Mutated Genes

Drug × Druggable Target Matrix for Frequently Mutated Genes	Genes with Frequently Detected Mutations in This Experiment																																																												Previously Identified Druggable Targets with Detected Mutations in This Experiment																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	BRCA1	BRCA2	TP53	MDM2	MDM4	MDM5	MDM6	MDM7	MDM8	MDM9	MDM10	MDM11	MDM12	MDM13	MDM14	MDM15	MDM16	MDM17	MDM18	MDM19	MDM20	MDM21	MDM22	MDM23	MDM24	MDM25	MDM26	MDM27	MDM28	MDM29	MDM30	MDM31	MDM32	MDM33	MDM34	MDM35	MDM36	MDM37	MDM38	MDM39	MDM40	MDM41	MDM42	MDM43	MDM44	MDM45	MDM46	MDM47	MDM48	MDM49	MDM50	MDM51	MDM52	MDM53	MDM54	MDM55	MDM56	MDM57	MDM58	MDM59	MDM60	MDM61	MDM62	MDM63	MDM64	MDM65	MDM66	MDM67	MDM68	MDM69	MDM70	MDM71	MDM72	MDM73	MDM74	MDM75	MDM76	MDM77	MDM78	MDM79	MDM80	MDM81	MDM82	MDM83	MDM84	MDM85	MDM86	MDM87	MDM88	MDM89	MDM90	MDM91	MDM92	MDM93	MDM94	MDM95	MDM96	MDM97	MDM98	MDM99	MDM100	MDM101	MDM102	MDM103	MDM104	MDM105	MDM106	MDM107	MDM108	MDM109	MDM110	MDM111	MDM112	MDM113	MDM114	MDM115	MDM116	MDM117	MDM118	MDM119	MDM120	MDM121	MDM122	MDM123	MDM124	MDM125	MDM126	MDM127	MDM128	MDM129	MDM130	MDM131	MDM132	MDM133	MDM134	MDM135	MDM136	MDM137	MDM138	MDM139	MDM140	MDM141	MDM142	MDM143	MDM144	MDM145	MDM146	MDM147	MDM148	MDM149	MDM150	MDM151	MDM152	MDM153	MDM154	MDM155	MDM156	MDM157	MDM158	MDM159	MDM160	MDM161	MDM162	MDM163	MDM164	MDM165	MDM166	MDM167	MDM168	MDM169	MDM170	MDM171	MDM172	MDM173	MDM174	MDM175	MDM176	MDM177	MDM178	MDM179	MDM180	MDM181	MDM182	MDM183	MDM184	MDM185	MDM186	MDM187	MDM188	MDM189	MDM190	MDM191	MDM192	MDM193	MDM194	MDM195	MDM196	MDM197	MDM198	MDM199	MDM200	MDM201	MDM202	MDM203	MDM204	MDM205	MDM206	MDM207	MDM208	MDM209	MDM210	MDM211	MDM212	MDM213	MDM214	MDM215	MDM216	MDM217	MDM218	MDM219	MDM220	MDM221	MDM222	MDM223	MDM224	MDM225	MDM226	MDM227	MDM228	MDM229	MDM230	MDM231	MDM232	MDM233	MDM234	MDM235	MDM236	MDM237	MDM238	MDM239	MDM240	MDM241	MDM242	MDM243	MDM244	MDM245	MDM246	MDM247	MDM248	MDM249	MDM250	MDM251	MDM252	MDM253	MDM254	MDM255	MDM256	MDM257	MDM258	MDM259	MDM260	MDM261	MDM262	MDM263	MDM264	MDM265	MDM266	MDM267	MDM268	MDM269	MDM270	MDM271	MDM272	MDM273	MDM274	MDM275	MDM276	MDM277	MDM278	MDM279	MDM280	MDM281	MDM282	MDM283	MDM284	MDM285	MDM286	MDM287	MDM288	MDM289	MDM290	MDM291	MDM292	MDM293	MDM294	MDM295	MDM296	MDM297	MDM298	MDM299	MDM300	MDM301	MDM302	MDM303	MDM304	MDM305	MDM306	MDM307	MDM308	MDM309	MDM310	MDM311	MDM312	MDM313	MDM314	MDM315	MDM316	MDM317	MDM318	MDM319	MDM320	MDM321	MDM322	MDM323	MDM324	MDM325	MDM326	MDM327	MDM328	MDM329	MDM330	MDM331	MDM332	MDM333	MDM334	MDM335	MDM336	MDM337	MDM338	MDM339	MDM340	MDM341	MDM342	MDM343	MDM344	MDM345	MDM346	MDM347	MDM348	MDM349	MDM350	MDM351	MDM352	MDM353	MDM354	MDM355	MDM356	MDM357	MDM358	MDM359	MDM360	MDM361	MDM362	MDM363	MDM364	MDM365	MDM366	MDM367	MDM368	MDM369	MDM370	MDM371	MDM372	MDM373	MDM374	MDM375	MDM376	MDM377	MDM378	MDM379	MDM380	MDM381	MDM382	MDM383	MDM384	MDM385	MDM386	MDM387	MDM388	MDM389	MDM390	MDM391	MDM392	MDM393	MDM394	MDM395	MDM396	MDM397	MDM398	MDM399	MDM400	MDM401	MDM402	MDM403	MDM404	MDM405	MDM406	MDM407	MDM408	MDM409	MDM410	MDM411	MDM412	MDM413	MDM414	MDM415	MDM416	MDM417	MDM418	MDM419	MDM420	MDM421	MDM422	MDM423	MDM424	MDM425	MDM426	MDM427	MDM428	MDM429	MDM430	MDM431	MDM432	MDM433	MDM434	MDM435	MDM436	MDM437	MDM438	MDM439	MDM440	MDM441	MDM442	MDM443	MDM444	MDM445	MDM446	MDM447	MDM448	MDM449	MDM450	MDM451	MDM452	MDM453	MDM454	MDM455	MDM456	MDM457	MDM458	MDM459	MDM460	MDM461	MDM462	MDM463	MDM464	MDM465	MDM466	MDM467	MDM468	MDM469	MDM470	MDM471	MDM472	MDM473	MDM474	MDM475	MDM476	MDM477	MDM478	MDM479	MDM480	MDM481	MDM482	MDM483	MDM484	MDM485	MDM486	MDM487	MDM488	MDM489	MDM490	MDM491	MDM492	MDM493	MDM494	MDM495	MDM496	MDM497	MDM498	MDM499	MDM500	MDM501	MDM502	MDM503	MDM504	MDM505	MDM506	MDM507	MDM508	MDM509	MDM510	MDM511	MDM512	MDM513	MDM514	MDM515	MDM516	MDM517	MDM518	MDM519	MDM520	MDM521	MDM522	MDM523	MDM524	MDM525	MDM526	MDM527	MDM528	MDM529	MDM530	MDM531	MDM532	MDM533	MDM534	MDM535	MDM536	MDM537	MDM538	MDM539	MDM540	MDM541	MDM542	MDM543	MDM544	MDM545	MDM546	MDM547	MDM548	MDM549	MDM550	MDM551	MDM552	MDM553	MDM554	MDM555	MDM556	MDM557	MDM558	MDM559	MDM560	MDM561	MDM562	MDM563	MDM564	MDM565	MDM566	MDM567	MDM568	MDM569	MDM570	MDM571	MDM572	MDM573	MDM574	MDM575	MDM576	MDM577	MDM578	MDM579	MDM580	MDM581	MDM582	MDM583	MDM584	MDM585	MDM586	MDM587	MDM588	MDM589	MDM590	MDM591	MDM592	MDM593	MDM594	MDM595	MDM596	MDM597	MDM598	MDM599	MDM600	MDM601	MDM602	MDM603	MDM604	MDM605	MDM606	MDM607	MDM608	MDM609	MDM610	MDM611	MDM612	MDM613	MDM614	MDM615	MDM616	MDM617	MDM618	MDM619	MDM620	MDM621	MDM622	MDM623	MDM624	MDM625	MDM626	MDM627	MDM628	MDM629	MDM630	MDM631	MDM632	MDM633	MDM634	MDM635	MDM636	MDM637	MDM638	MDM639	MDM640	MDM641	MDM642	MDM643	MDM644	MDM645	MDM646	MDM647	MDM648	MDM649	MDM650	MDM651	MDM652	MDM653	MDM654	MDM655	MDM656	MDM657	MDM658	MDM659	MDM660	MDM661	MDM662	MDM663	MDM664	MDM665	MDM666	MDM667	MDM668	MDM669	MDM670	MDM671	MDM672	MDM673	MDM674	MDM675	MDM676	MDM677	MDM678	MDM679	MDM680	MDM681	MDM682	MDM683	MDM684	MDM685	MDM686	MDM687	MDM688	MDM689	MDM690	MDM691	MDM692	MDM693	MDM694	MDM695	MDM696	MDM697	MDM698	MDM699	MDM700	MDM701	MDM702	MDM703	MDM704	MDM705	MDM706	MDM707	MDM708	MDM709	MDM710	MDM711	MDM712	MDM713	MDM714	MDM715	MDM716	MDM717	MDM718	MDM719	MDM720	MDM721	MDM722	MDM723	MDM724	MDM725	MDM726	MDM727	MDM728	MDM729	MDM730	MDM731	MDM732	MDM733	MDM734	MDM735	MDM736	MDM737	MDM738	MDM739	MDM740	MDM741	MDM742	MDM743	MDM744	MDM745	MDM746	MDM747	MDM748	MDM749	MDM750	MDM751	MDM752	MDM753	MDM754	MDM755	MDM756	MDM757	MDM758	MDM759	MDM760	MDM761	MDM762	MDM763	MDM764	MDM765	MDM766	MDM767	MDM768	MDM769	MDM770	MDM771	MDM772	MDM773	MDM774	MDM775	MDM776	MDM777	MDM778	MDM779	MDM780	MDM781	MDM782	MDM783	MDM784	MDM785	MDM786	MDM787	MDM788	MDM789	MDM790	MDM791	MDM792	MDM793	MDM794	MDM795	MDM796	MDM797	MDM798	MDM799	MDM800	MDM801	MDM802	MDM803	MDM804	MDM805	MDM806	MDM807	MDM808	MDM809	MDM810	MDM811	MDM812	MDM813	MDM814	MDM815	MDM816	MDM817	MDM818	MDM819	MDM820	MDM821	MDM822	MDM823	MDM824	MDM825	MDM826	MDM827	MDM828	MDM829	MDM830	MDM831	MDM832	MDM833	MDM834	MDM835	MDM836	MDM837	MDM838	MDM839	MDM840	MDM841	MDM842	MDM843	MDM844	MDM845	MDM846	MDM847	MDM848	MDM849	MDM850	MDM851	MDM852	MDM853	MDM854	MDM855	MDM856	MDM857	MDM858	MDM859	MDM860	MDM861	MDM862	MDM863	MDM864	MDM865	MDM866	MDM867	MDM868	MDM869	MDM870	MDM871	MDM872	MDM873	MDM874	MDM875	MDM876	MDM877	MDM878	MDM879	MDM880	MDM881	MDM882	MDM883	MDM884	MDM885	MDM886	MDM887	MDM888	MDM889	MDM890	MDM891	MDM892	MDM893	MDM894	MDM895	MDM896	MDM897	MDM898	MDM899	MDM900	MDM901	MDM902	MDM903	MDM904	MDM905	MDM906	MDM907	MDM908	MDM909	MDM910	MDM911	MDM912	MDM913	MDM914	MDM915	MDM916	MDM917	MDM918	MDM919	MDM920	MDM921	MDM922	MDM923	MDM924	MDM925	MDM926	MDM927	MDM928	MDM929	MDM930	MDM931	MDM932	MDM933	MDM934	MDM935	MDM936	MDM937	MDM938	MDM939	MDM940	MDM941	MDM942	MDM943	MDM944	MDM945	MDM946	MDM947	MDM948	MDM949	MDM950	MDM951	MDM952	MDM953	MDM954	MDM955	MDM956	MDM957	MDM958	MDM959	MDM960	MDM961	MDM962	MDM963	MDM964	MDM965	MDM966	MDM967	MDM968	MDM969	MDM970	MDM971	MDM972	MDM973	MDM974	MDM975	MDM976	MDM977	MDM978	MDM979	MDM980	MDM981	MDM982	MDM983	MDM984	MDM985	MDM986	MDM987	MDM988	MDM989	MDM990	MDM991	MDM992	MDM993	MDM994	MDM995	MDM996	MDM997	MDM998	MDM999	MDM1000	MDM1001	MDM1002	MDM1003	MDM1004	MDM1005	MDM1006	MDM1007	MDM1008	MDM1009	MDM1010	MDM1011	MDM1012	MDM1013	MDM1014	MDM1015	MDM1016	MDM1017	MDM1018	MDM1019	MDM1020	MDM1021	MDM1022	MDM1023	MDM1024	MDM1025	MDM1026	MDM1027	MDM1028	MDM1029	MDM1030	MDM1031	MDM1032	MDM1033	MDM1034	MDM1035	MDM1036	MDM1037	MDM1038	MDM1039	MDM1040	MDM1041	MDM1042	MDM1043	MDM1044	MDM1045	MDM1046	MDM1047	MDM1048	MDM1049	MDM1050	MDM1051	MDM1052	MDM1053	MDM1054	MDM1055	MDM1056	MDM1057	MDM1058	MDM1059	MDM1060	MDM1061	MDM1062	MDM1063	MDM1064	MDM1065	MDM1066	MDM1067	MDM1068	MDM1069	MDM1070	MDM1071	MDM1072	MDM1073	MDM1074	MDM1075	MDM1076	MDM1077	MDM1078	MDM1079	MDM1080	MDM1081	MDM1082	MDM1083	MDM1084	MDM1085	MDM1086	MDM1087	MDM1088	MDM1089	MDM1090	MDM1091	MDM1092	MDM1093	MDM1094	MDM1095	MDM1096	MDM1097	MDM1098	MDM1099	MDM1100	MDM1101	MDM1102	MDM1103	MDM1104	MDM1105	MDM1106	MDM1107	MDM1108	MDM1109	MDM1110	MDM1111	MDM1112	MDM1113	MDM1114	MDM1115	MDM1116	MDM1117	MDM1118	MDM1119	MDM1120	MDM1121	MDM1122	MDM1123	MDM1124	MDM1125	MDM1126	MDM1127	MDM1128	MDM1129	MDM1130	MDM1131	MDM1132	MDM1133	MDM1134	MDM1135	MDM1136	MDM1137	MDM1138	MDM1139	MDM1140	MDM1141	MDM1142	MDM1143	MDM1144	MDM1145	MDM1146	MDM1147	MDM1148	MDM1149	MDM1150	MDM1151	MDM1152	MDM1153	MDM1154	MDM1155	MDM1156	MDM1157	MDM1158	MDM1159	MDM1160	MDM1161	MDM1162	MDM1163	MDM1164	MDM1165	MDM1166	MDM1167	MDM1168	MDM1169	MDM1170	MDM1171	MDM1172	MDM1173	MDM1174	MDM1175	MDM1176	MDM1177	MDM1178	MDM1179	MDM1180	MDM1181	MDM1182	MDM1183	MDM1184	MDM1185	MDM1186	MDM1187	MDM1188	MDM1189	MDM1190	MDM1191	MDM1192	MDM1193	MDM1194	MDM1195	MDM1196	MDM1197	MDM1198	MDM1199	MDM1200	MDM1201	MDM1202	MDM1203	MDM1204	MDM1205	MDM1206	MDM1207	MDM1208	MDM1209	MDM1210



