doi: 10.1038/nature07485

A. SUPPLEMENTARY METHODS.

Rationale for selection an AML genome for sequencing. We selected a specific genome for study based on the following criteria:

1. *De novo* AML in an adult patient less than 60 years old. Patients enrolled in the study were greater than 18 years of age, and with no antecedent history of myelodysplastic syndrome or prior chemotherapy or radiation therapy for cancer, since treatment-related AML may have a different genetic basis than *de novo* AML. Further, several Cooperative Group retrospective analyses have suggested that both the clinical course and the biology of AML in patients over the age of 60 years may be clinically different from those patients less than age 60 with *de novo* AML[1].

2. High sample purity. The morphologic and flow cytometric criteria for M1 AML required high sample purity (e.g. a blast count of >80%) to eliminate the need to further purify malignant cells.

3. A simple, diploid genome. A normal karyotype was required, and we further required the sample to have no somatic copy number alterations based on Affymetrix 6.0 SNP array analysis comparing the tumor and associated normal skin sample.

4. Typical features of M1 AML. We required a gene expression profile typical of M1 AML with normal cytogenetics, to assure that the sample was not an outlier for this subtype.

5. Adequate sample abundance. Adequate amounts of high quality DNA and RNA had to be available both from the bone marrow-derived tumor sample, and from the normal tissue (obtained from a skin biopsy at the time of tumor banking) to assure that all genomic studies could be completed.

6. At least one known AML-specific somatic mutation to serve as a positive control. This assures that the patient has the correct diagnosis, and that DNA samples are suitable for the detection of somatic mutations.

7. IRB approved informed consent for whole genome sequencing.

From the 371 cases of AML banked on our AML protocol as of 12/06, 60 had the FAB M1 subtype. 21 met some of these criteria, and 6 met them all. From these 6, we selected one case for study, UPN 933124, primarily because the patient's initial bone marrow sample contained virtually 100% myeloblasts, eliminating concerns that contaminating normal cells would complicate our analyses. Although this case was carefully selected, the presentation of AML was typical, and the case is representative of most patients with M1 AML, as described below.

Case presentation of UPN 933124. A previously healthy Caucasian female in her late 50s presented with a sudden onset of sore throat and easy bruisability. There was no antecedent history of prior cancer, or administration of cytotoxic drugs and/or radiation therapy. The patient's family history was obtained by a trained genetic counselor and was positive for late onset cancers in her mother and several of her mother's siblings, including a maternal uncle with a reported case of AML that was confirmed by death certificate. The patient's sister has Essential Thrombocythemia (*JAK2 V617F* negative). None of the patient's children had a history of cancer. The patient's pedigree is being withheld from this report to protect the privacy of the family. The patient was found to have a peripheral blood white blood cell count of 105,000 cells per microliter with 85% blasts on presentation. The hemoglobin was 12.1 grams per deciliter, and platelet count was 20,000 per microliter. A bone marrow biopsy and aspirate revealed 100% blasts, and confirmed the diagnosis of AML, FAB M1 subtype (Supplementary Fig. 1). Flow cytometry revealed a single population of myeloblasts with cell surface expression of CD-13, -33 and -117, and absent expression of CD-34 and HLA-DR (Supplementary Fig. 1). Cytogenetic analysis of tumor cells revealed a normal 46 XX karyotype. After informed consent was obtained, she was enrolled in a cooperative group protocol for treatment of AML in adults less than age 60 (Cancer and Leukemia Group B (CALGB) #19808), and a Washington University Human Studies Committee-approved protocol for tissue banking in patients with MDS and AML (HSC #01-1014). Specimens of bone marrow, peripheral blood, and skin were collected and cryopreserved for genomic studies. After emergent leukopheresis, she underwent induction chemotherapy with cytarabine, daunorubicin, and etoposide. A bone marrow biopsy repeated 2 weeks later demonstrated chemoablation. After myeloid recovery, a repeat bone marrow biopsy demonstrated first complete remission. On the basis of her intermediate risk cytogenetics, she was assigned to undergo consolidation chemotherapy with high dose cytarabine and etoposide, followed by filgrastim to facilitate autologous hematopoietic stem cell mobilization and collection. She subsequently underwent dose-intensive busulfan and etoposide conditioning, followed by autologous hematopoietic stem cell rescue. Upon recovery from autologous stem cell transplantation, she was assigned to receive maintenance immunotherapy with IL-2. Despite these multiple therapies, she relapsed 11 months after her initial diagnosis. After failing to respond to a salvage regimen of mitoxantrone, etoposide, and cytarabine, she received fludarabine, high dose Ara-C, idarubicin and gemtuzumab ozogamicin. 10 days later she received high dose cyclophosphamide conditioning (60 mg/kg daily x 2) and then single dose total body irradiation (550 cGy; 30 cGy/min) followed by allogeneic hematopoietic stem cell transplantation from an HLA-matched sibling donor. A bone marrow biopsy performed one month after transplantation confirmed second complete remission. Unfortunately, her disease relapsed four months later. Gemtuzumab ozogamicin was again administered, followed by two donor lymphocyte infusions, without clearance of circulating blasts. She was then successively treated with azacytidine, low dose cytarabine, and decitabine, again without appreciable response, and expired 24 months after her initial diagnosis. Informed consent for whole genome sequencing was subsequently obtained from her next of kin and family members, using a revised Washington University Human Studies Committee-approved protocol that specifically addresses privacy and confidentiality issues associated with whole genome sequencing (HSC #01-1014, Amendment # 17).

Informed consent and tissue banking. Informed consent (obtained in accordance with the Declaration of Helsinki) for tissue banking was obtained from the patient at initial clinical presentation, and she was enrolled on WU HSC protocol #01-1014, "Tissue Acquisition for Analysis of Genetic Progression Factors in Hematologic Diseases," for which all patients with MDS and AML referred to the Siteman Cancer Center at Washington University since 11/03 have been routinely approached. Eligibility criteria included age greater than 18, more than 30% myeloblasts in the bone marrow, and the absence of antecedent chemotherapy, radiation therapy, or history of myelodysplasia. Samples with 2 or fewer clonal cytogenetic abnormalities were given preference for inclusion in the study. Peripheral blood and bone marrow were obtained for analysis of tumor cells, and a 6-mm punch biopsy of skin was obtained for analysis of unaffected somatic cells. Following collection, de-identified tissue specimens were labeled with a randomly generated Unique Patient Identifier (UPN), and then transported to the Siteman Cancer Center Tissue Procurement Core. Details of clinical presentations and subsequent courses are maintained prospectively in a database by a study-dedicated data manager, to whom knowledge of patient identity is restricted. Subsequent to the death of patient 933124, the WU HSC approved an amendment to the protocol that incorporated language specifically permitting the use of banked DNA for whole genome sequencing, to which her husband consented. The patient's sister also consented to provide a detailed family history, which was obtained by a trained genetic counselor, as explicitly outlined in the revised protocol.

DNA was prepared from all tissues using standard protocols. One hundred *de novo* AML samples from patients with the same entry criteria were also obtained from Cancer and Leukemia Group B (CALGB)[2]; similar numbers of patients with the M0/1, M2, M3, and M4 French-American-British (FAB) subtype were selected for analysis. The institutional review boards of all participating institutions approved this study.

Expression Analysis. Bone marrow aspirates were obtained from properly consented AML patients, and RNA was prepared from the unfractionated snap-frozen cell pellets. Total cellular RNA was purified using the Trizol reagent (Invitrogen, Carlsbad, CA), quantified using UV spectroscopy (Nanodrop Technologies), and qualitatively assessed using a BioAnalyzer 2100 and RNA NanoChip assay (Agilent Technologies, Palo Alto, CA). For all samples, 2 ug total cellular RNA was amplified, labeled, and hybridized to Affymetrix Human U133 Plus 2.0 Array GeneChip microarrays (Affymetrix Inc, Santa Clara, CA) using standard protocols from Affymetrix and the Siteman Cancer Center Multiplexed Gene Analysis Core Facility. To perform interarray comparisons, the raw scan data from each microarray were scaled to a target intensity of 1500 using the Affymetrix GCOS 1.2 (MAS 5) statistical algorithm. Scaled data from each array were exported to the Siteman Cancer Center Bioinformatics Server (http://bioinformatics.wustl.edu), merged with updated gene annotation data for each probeset on the array, and downloaded for further data visualization and analysis[3]. The complete dataset has been

analyzed in detail in a separate study (J.E.P., N.R.Grieselhuber, L.W.Chang, M.Murakami, W.Yuan, D.C.L, R.N., M.A.W., T.J.L, manuscript in preparation) and has been publicly deposited (GEO accession number, GSE10358).

Expression data was filtered to eliminate all probes with <10% present calls across all samples and those without significant variation across FAB subclasses. These were next subjected to unsupervised clustering using Ward's method in Spotfire DecisionSite (Spotfire Inc, Somerville, MA)[3].

Copy Number and Loss of Heterozygosity Analysis. Peripheral blood and bone marrow were obtained for analysis of tumor cells, and a 6-mm punch biopsy of skin was obtained for analysis of unaffected somatic cells. DNA was prepared from both tissues using standard protocols. DNA was quantified using UV spectroscopy (Nanodrop Technologies), and qualitatively assessed using standard agarose gel electrophoresis. For all samples, 0.5 ug DNA was digested with Nsp and Sty enzymes, amplified, fragmented and labeled, and hybridized to Affymetrix Genome-Wide Human SNP 6.0 Array GeneChip microarrays (Affymetrix Inc, Santa Clara, CA) using standard protocols from Affymetrix and the Siteman Cancer Center Multiplexed Gene Analysis Core Facility. Array image data was analyzed using Affymetrix GCOS 1.4 operating software and Genotyping Console 2.1 to derive .cel data files, which were exported to the Siteman Cancer Center Bioinformatics Server (http://bioinformatics.wustl.edu), and downloaded for further data visualization and analysis. The complete dataset has been analyzed in detail in a separate study (M.J.W., J.E.P., R.R., R.N., M.A.W., T.J.L, manuscript in preparation) and will be publicly deposited.

Partek Genomic Suite (Partek Inc, Saint Louis, MO) was used for both copy number and loss of heterozygosity (LOH) analysis. SNP array signal intensity data for both SNP and CN probes (1.8 million) were analyzed to determine copy number using the standard Partek workflow for paired sample copy number analysis, which calculates the ratio of tumor copy number to that of paired normal/skin. The birdseed v2.0 algorithm was used to derive genotypes from SNP probes (900,000). Genotyping results from paired skin and tumor samples were compared to find regions of LOH. The results of both analyses were plotted as a heatmap using Spotfire DecisionSite (Spotfire Inc, Somerville, MA).

Library construction. Illumina genomic DNA libraries were produced according to the manufacturer's supplied protocol, using a 150-200 bp insert size and Illumina single end read adapters. To reduce redundant reads resulting from PCR biasing of the libraries, we adopted a strategy whereby each library was used to produce only 10 flow cells. Following titration, each library was diluted and amplified into clusters according to the Illumina Cluster Station protocols. Each flow cell was analyzed on an Illumina Genome Analyzer, using 32 bp read length for the tumor genome reads and a 35 bp read length for the

normal genome reads. The Illumina processing pipeline, run in a parallelized fashion, performed all post-run quality filtering and base calling. The completed high quality reads were added to our LIMS database.

Algorithms for detecting SNVs. The basic approach for the Decision Tree algorithm for SNV detection was outlined in the Results section. Specifically, SNVs were retained for additional analysis when they were supported by 7 or more unique start-site reads and where the SNV has a Maq quality score of more than 30, or if all of the following were true:

(1) the SNV had read support with a maximum base quality greater than 26,

(2) was supported by 3 or more unique start-site reads supporting the SNV, and

(3) the reads supporting the SNV had an average base quality greater than 16.

Since the skin sample contained contaminating leukemic cells (based on our deep readcount analysis on 454), a requirement of no support for a variant in skin was overly strict and resulted in false negatives. Instead, we used a one-sided binomial test as an unbiased ranking of each potential somatic variant. Due to the small number of reads at each position in skin, we accepted any SNV as a potential tumor variant if it had no supporting reads in skin, or had a p-value greater than 0.65, since the number of skin reads was greater than the coverage-adjusted rate of contamination (about 10% of the skin sample was derived from circulating leukemic cells). This yielded a set of high confidence, potentially somatic variants that were validated by re-sequencing PCR-generated amplicons on the ABI 3730xl platform).

Assigning conservation scores for somatic mutations. The conservation score listed for each mutation in Table 2 is the posterior probability that the element in question is conserved across 28 vertebrate genomes, as calculated by PhastCons * using a phylogenetic hidden Markov model (phylo-HMM)[4].

Stringent indel detection. We first compared all Solexa tumor and normal reads to the full human genome (hg 36) using ELAND through the Solexa read processing pipeline, removing all reads that did not match to the human genome with 0, 1 or 2 mismatches to a file. These non-matched reads (242,352,962 reads for tumor genome, 105,026,540 for normal) were then compared to a transcriptome database that was derived from the AceView database using cross_match (version 080214.1, Phil Green, personal communication). The following cross_match parameters were used: gap_init: -4, gap_ext: -3, ins_gap_ext: -3, del_gap_ext: -3, -minscore 8 -discrep_lists -minmatch 12 -maxmatch 14 -raw -word_raw -masklevel -1 –tags, with matches assigned a score of +1 and mismatches a score of -2.

We filtered the initial cross_match alignments by first identifying specific indels that were identified either within the normal or tumor read sets as follows:

1. Keep only alignments where ≤ 2bp are unaligned at their 3' end and no more than 1 bp is unaligned at the 5' end,
2. Keep only indels for which at least two reads identifying the discrepant base have a quality value of >Q19 in that position.
3. Remove any putative indel sites with
    a. more than one indel type at the same position,
    b. all reads starting or ending at the same site,
    c. more than one high quality discrepancy (>Q19) within the alignment,
    d. all supporting reads obtained from the same flow cell,
    e. more than one indel site identified per transcript (frequency greater than 1 per 500 bp).

The clusters of reads identifying putative indels that survived this stringent filtering then were aligned against the human genome (hs36) using cross_match (with the parameters listed above), to ensure best-in-genome position. For the normal set, there were 5,967 putative indels identified by 33,592 reads, and for the tumor set there were 7,781 putative indels identified by 61,350 reads. Of these, 81,843 reads were aligned against build hs36 and 98% (80,265) of them identified the same indel at the same position in the genome as had been identified in the transcriptome alignment. Further, for the indels identified by these 80,264 reads to be considered valid, the best-in-genome alignment for at least one of the reads in an indel-identifying cluster had to have an alignment score of ≥3 more than the next best alignment score for that read. We also required that each of the 4 bp on either side of the indel site had to have quality values of >Q15. The final list of putative indels required at least one such high quality read to support it.

The positions of indels were correlated with both REFSEQ and dbSNP such that those indel sites occurring within bases annotated as REFSEQ CDS and UTR regions and not already annotated in dbSNP were validated. Some indels were found only in the tumor or normal reads, while others were found in both read sets. In total, we identified 7746 indels within REFSEQ CDSs according to these criteria and filters, 4031 of which were also in dbSNP and 3715 of which are novel. Of these, 183 overlap REFSEQ CDS (91 are in dbSNP and 92 are novel). Of these, 10 were only found in the tumor set. In REFSEQ UTR regions, 1357 indels (871 are in dbSNP; 486 are novel) were identified specifically in the tumor sample. Of those 486 novel UTR indels, 338 were found only in the tumor set of which 114 met the criteria of a

≥3 better than the next best alignment score in the genome. Of those, 40 consisted of reads with at least 3 start sites and were validated.

Manual review was finally used to filter lists of potential indels identified by computational methods. The criteria listed below enabled the refinement of the computational methods, as well as minimized the number of validation assays necessary to discover the sequence variants in this project. This procedure enabled manual reviewers to make decisions on the likelihood that computationally indicated variants were based on solid sequence data, or rather due to sequencing artifacts from the sequencing instruments. This type of review has been employed for many years in the "finishing" process of DNA sequencing pipelines, and was helpful in informing this discovery pipeline.

The process involved the creation of consed databases, which are alignment and visual displays of the human reference sequences as well as the aligned sequences to the indicated regions of the genome. The variants (either putative indels or single nucleotide variants) as well as supporting sequences are displayed. Manual reviewers inspect the potential detected variants, and based on specific criteria, determine whether the region is worthy of further sequence validation. The criteria include: 1) at least two unique start site sequences containing the sequence variant and 2) at least one high quality base sequence or one sequence from each strand (double stranded) representing the variant. The only exceptions to those criteria are low quality A's or T's in the sequence, which are discounted regardless of strand because of their prevalence in the sequence. A blat sequence alignment is also performed, and 100% matches elsewhere are discounted.

Estimating the false negative and positive rates for mutation discovery. To estimate the raw false negative rate of SNV discovery in the tumor genome (i.e. the potential number of mutations that were missed by our analysis), we used our reference set of heterozygous SNP calls (concordant between the Affymetrix 6.0 and Illumina genotyping arrays). The same Decision Tree analysis used to detect somatic mutations also detected 40,705 of the 46,494 heterozygous SNPs defined by both the array platforms. The 5,789 bases defined as SNPs by both arrays but not detected in the tumor genome database suggests a raw false negative rate of 12.45% for heterozygous SNPs (which is the most appropriate surrogate for the heterozygous mutations that we are attempting to detect). Since only eight somatic SNVs were verified in coding sequences, this suggests that no more than a few additional non-synonymous mutations are likely to exist in this genome. Assuming that the mutation rate is similar throughout the genome, we infer that the non-coding portion of the tumor genome (98-99% of total genomic content) may contain an additional 500-1000 somatic mutations.

To assess the false positive rate, we determined the number of heterozygous SNPs passing the Decision Tree analysis that intersected genomic positions where both SNP arrays were concordant for the genotype. Of 40,128 predicted heterozygous sites called identically by both SNP arrays (i.e. 'true' calls),

only 23 variants from the Decision Tree analysis of tumor DNA did not agree, yielding an estimated false positive rate of 0.06%. The very low estimated false positive rate for true SNPs is very different from the apparent false positive rate of potential somatic variants (152 out of 181). The reason for the apparent contradiction is this: although the false positive rate of the Decision Tree was extremely low, we removed enormous numbers of variants that were almost certainly true positives (i.e. all variants present in the skin, and all variants reported in dbSNP-127 and the Watson and Venter genomes), which greatly enriched our set of potential somatic mutations with false positives. In addition, we purposefully set our filters to allow for some false positives, to minimize the possibility of missing relevant mutations. Based on the large number of false positives detected in the final list of somatic variants, we are confident that very few 'true' non-synonymous mutations were missed by our analysis.

At present, we do not have a 'gold standard' against which we can calibrate the raw false negative rate for indel detection. However, it was reassuring that more than half of the indels detected by our screening method previously had been described in dbSNP, and that most of the putative indels selected for secondary validation (22/24) were found to be correctly called.

Confirmation of somatic mutations by 454 sequencing. Amplicons containing exons with relevant putative mutations were generated from non-amplified genomic DNA from the primary and relapse tumor samples, and the skin biopsy obtained at initial banking (when the patient was overtly leukemic). 454 sequencing of these amplicons was performed as previously described[5]. The sequence bases and quality scores from 454 reads were extracted using the *sffinfo* program. Each FASTA file was aligned to the human reference sequence (hg36) using BLAT [6]. Due to memory constraints, the alignments were performed by chromosome and then compiled into a single output file for each of normal and tumor. FASTA files for each chromosome (1-22, X, Y), with repeats masked to lower case, were obtained from the UCSC Genome Browser Database [7]. BLAT was invoked with the *mask=lower* parameter, which excluded the repetitive sequence during the seeding of alignments. SNP and indel events were identified in the BLAT alignments with the *breakPointRead* program [unpublished]. Variants detected at the somatic sites were combined to tabulate the number of reads supporting reference and variant alleles in each sample.

Detection of copy number variations. To identify potential somatic copy number changes, we searched for regions (≥ 1 kb) having different patterns of coverage in the tumor and skin samples, based on Maq alignments. We found 260 regions in the tumor and skin genomes with no coverage, ranging in size from 1 kb to 20.3 Mb. Not surprisingly, most of them (249 of 260) were found to lie in centromeric, telomeric, and other non-genic regions of the human genome. We identified 24 inherited deletions and two small single copy amplifications in the tumor and skin genomes using sequence read counts and supported these with Affymetrix 6.0 array data analysis (Supplementary Table 1). Examples of inherited heterozygous and homozygous deletions, and an inherited single copy gain (detected on both platforms)

are shown in Supplementary Figure 4. Importantly, no large somatic deletions and/or amplifications were identified with either approach.

B. SUPPLEMENTARY DISCUSSION.

Potential roles of the mutated genes in AML pathogenesis. We detected somatic mutations in eight protein-coding genes. One mutation is in the PTPRT gene, a tyrosine phosphatase/tumor suppressor that is frequently mutated in colon cancer genomes[8]. The mutation in our patient's tumor lies in the phosphatase domain, and is predicted by the SIFT algorithm[9] to be deleterious to the protein's function. A mutation in CDH24, which encodes cadherin-24 (a member of the type II classical cadherin family) predicts a Y590stop that is likely to cause loss-of-function, since it truncates the protein in extracellular domain 5, proximal to the transmembrane domain. A similar type I cadherin gene CDH1 (E-cadherin) frequently contains a similar germline nonsense mutation in patients with Hereditary Diffuse Gastric Cancer[10]. The residual allele of CDH1 can also be silenced by methylation in these tumors[11]. We also detected a missense mutation in PCLKC (PCDH24), another member of the cadherin superfamily. Expression of PCLKC is reduced in epithelial tumors,[12] possibly by epigenetic silencing, similar to that observed with a related protocadherin (PCDH10) in primary lymphoma samples and cell lines.[13] Therefore, both mutated cadherin family members may also be behaving as tumor suppressors in this setting. SLC15A1 is a transmembrane peptide transporter that is highly related to SLC11A1 (NRAMP1), SLC19A1, and SLC29A1 (ENT1), all of which are implicated in the transport of small molecules and drugs to cancer cells[14]. Biallelic mutations in SCL29A1 that result in a lack of detectable protein recently have been associated with cytarabine resistance in a human leukemia cell line[15], implicating SLC family members in chemotherapy resistance for AML. The SLC15A1 mutation in 933124 is a nonsense mutation that is predicted to cause loss-of-function, perhaps reducing drug transport that contributed to the patient's ultimate resistance to all therapies.

KNDC1 encodes a protein that shares homology with guanine nucleotide exchange factors for small GTPases, such as Ral and Ras. The mutation in this gene lies between the N terminal KIND domain and the GNEF domain, and its effect on protein function is not yet known. GPR123 and EBI2 are members of the G-protein coupled receptor gene family; proteins of this class are known to participate in important cell-cell interactions in a variety of systems[16]. The mutations in these genes may somehow alter the ability of the patient's AML cells to interact with bone marrow stromal cells in a way that provides an advantage to cells bearing the mutation, or may alter critical intracellular signaling pathways that affect cell proliferation. Of interest, EBI2 is a constitutively active G-protein linked receptor whose expression is stimulated by Epstein-Barr infection; mutations that alter its activity or trafficking may lead to abnormal growth promotion[17]. Although glutamate receptors have not yet been directly implicated in cancer pathogenesis, it is interesting to note that some of these receptors are expressed in embryonic stem cells, where they play a role in self-renewal[18,19]. Since self-renewal is thought to be an essential

feature of leukemia-initiating cells, it is tempting to speculate that the somatic mutation in GRINL1B may somehow be contributing to this property of the AML clone.

Nature of mutations that may have been missed by the short read method. As discussed in the Results section, our analysis strongly suggests that we may have missed only a very small number of SNVs in coding sequences. We have no 'gold standard' for calibrating our ability to detect indels, but we were reassured that most of the indels selected for validation (22 of 24) were found to be accurate calls. Our studies of copy number variants on high resolution Nimblegen and Affymetrix arrays (and corroborated with Solexa readcount data) makes it unlikely that we have missed somatic deletions or amplifications that are larger than 2-3 Kb in size. Although none of our data have suggested that this genome contains cryptic translocations (e.g. the tumor was cytogenically normal, and we found no chimeric reads to support translocations, nor evidence of somatic deletions that are often seen at translocation breakpoints), the short read length approach is not optimal for detecting them. Campbell, et al[20] have shown that massively-parallel paired end-read sequencing technology can be used to survey the structural variants that may be present in tumor genomes with substantially lower sequence coverage (~12-fold) than was produced in the current study. However, robust read-pair methods were not available when we initiated sequencing of this subject's genome; this method has recently become available, and should provide an optimal interval distance (~2-3 kb) to facilitate the detection of translocations in the future.

Inherited polymorphisms in the 933124 genome. Although the medical history of this patient does not provide definitive evidence for a familial or syndromic origin of her leukemia, the large number of cancer diagnoses in her extended family suggests that there may be an enrichment of susceptibility alleles. Gene association studies in sporadic AML have focused on candidate genes in DNA repair and drug detoxification pathways. In addition, there is emerging evidence that germline polymorphisms in genes that are somatically mutated in sporadic MDS/AML may be low penetrance susceptibility alleles for this disease [21,22]. We therefore compiled a comprehensive list of genes with known connections to AML pathogenesis from several sources; genes with germline mutations associated with familial or syndromic AML were drawn from the literature[23]. Genes mutated in sporadic MDS/AML were selected from a highly curated list of genes with recurrent mutations in human cancer (http://www.sanger.ac.uk/genetics/CGP/cosmic/). A total of 119 MDS/AML-associated genes were identified (Supplementary Table 2). Five non-synonymous SNPs in these genes were detected in the tumor and skin genomes and confirmed by capillary re-sequencing (Supplementary Table 3). Two of these sequence variants are in dbSNP and have been implicated in cancer susceptibility. BRCA2 N372H homozygotes are at increased risk for breast cancer[24]. The p53 R72 variant is a more potent inducer of apoptosis and has higher binding affinity for MDM2 compared to P72[25]. The data supporting a role for the p53 P72R polymorphism in cancer susceptibility are conflicting, but recent studies have demonstrated an interaction between p53 codon 72 status and the genotype at MDM2 *SNP309*[26], a SNP in the MDM2 promoter that increases mRNA levels, and consequently reduces p53 activity. The

remaining three non-synonymous SNVs are not in dbSNP, although one (FLT3 V194M) was recently detected in AML and shown to lack transforming activity *in vitro*[27]. 1,834 known and novel synonymous SNPs were detected from -10 to +5 kb from the 5' and 3' annotated boundaries of these genes (Supplementary Table 4). Case: control cohort studies will be required to determine the functional importance and relevance, if any, of these variants for AML pathogenesis.

To examine the potential role of germline variants more broadly, we assembled a list of general cancer susceptibility genes from a database of variants associated with human cancer (http://www.sanger.ac.uk/genetics/CGP/Census/) and supplemented this with an automated PubMed query using 24 free text terms related to cancer susceptibility. Genes with 10 or more PubMed citations were included. A total of 649 "Cancer Susceptibility" genes were identified (Supplementary Table 5), containing 33 non-synonymous variants detected in the tumor and skin genomes and confirmed by capillary resequencing (Supplementary Table 6). Of the 15 known non-synonymous SNPs in this list, five (including the *TP53* and *BRCA2* alleles) have been associated previously with cancer susceptibility.

Germline copy number variants (CNVs) also may have contributed to AML susceptibility in this patient. Among the genes that lie within intervals constitutionally deleted in this individual are *WWOX*, a tumor suppressor somatically deleted or translocated in a variety of solid tumors[28,29]. Paralogs of several other genes in the CNVs have been implicated in cancer susceptibility, including *NME1* and *ARL11*, a tumor suppressor mutated in familial CLL, breast, and colorectal cancer (Supplementary Table 1)[30-32].

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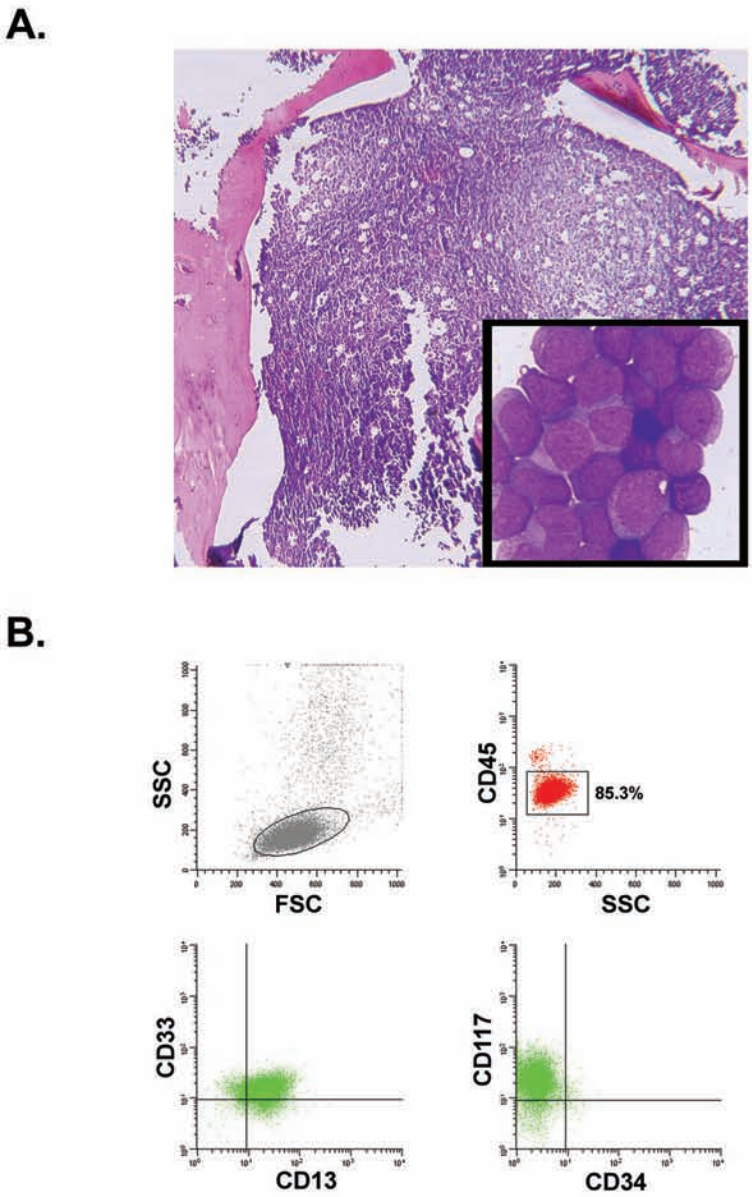
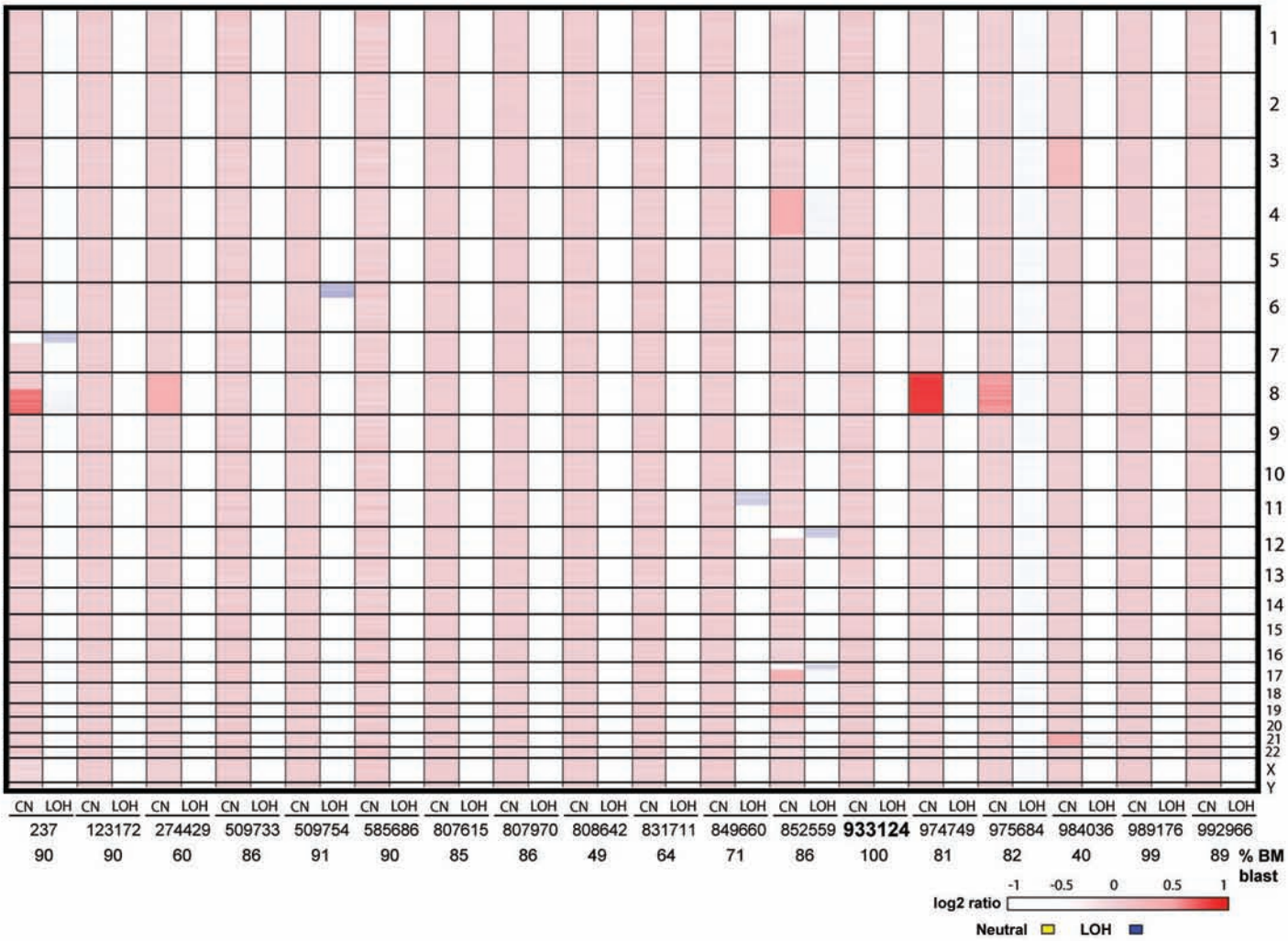
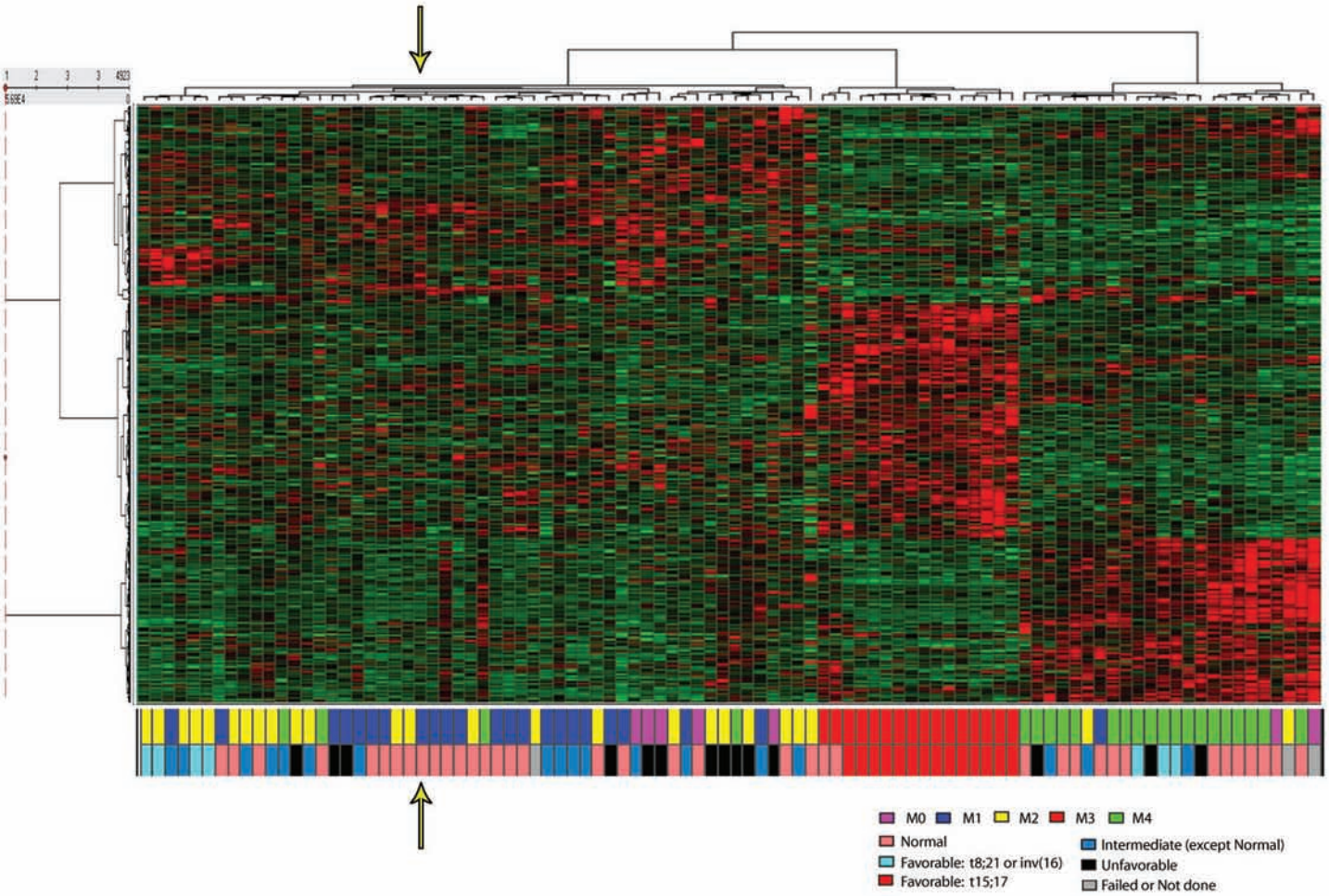


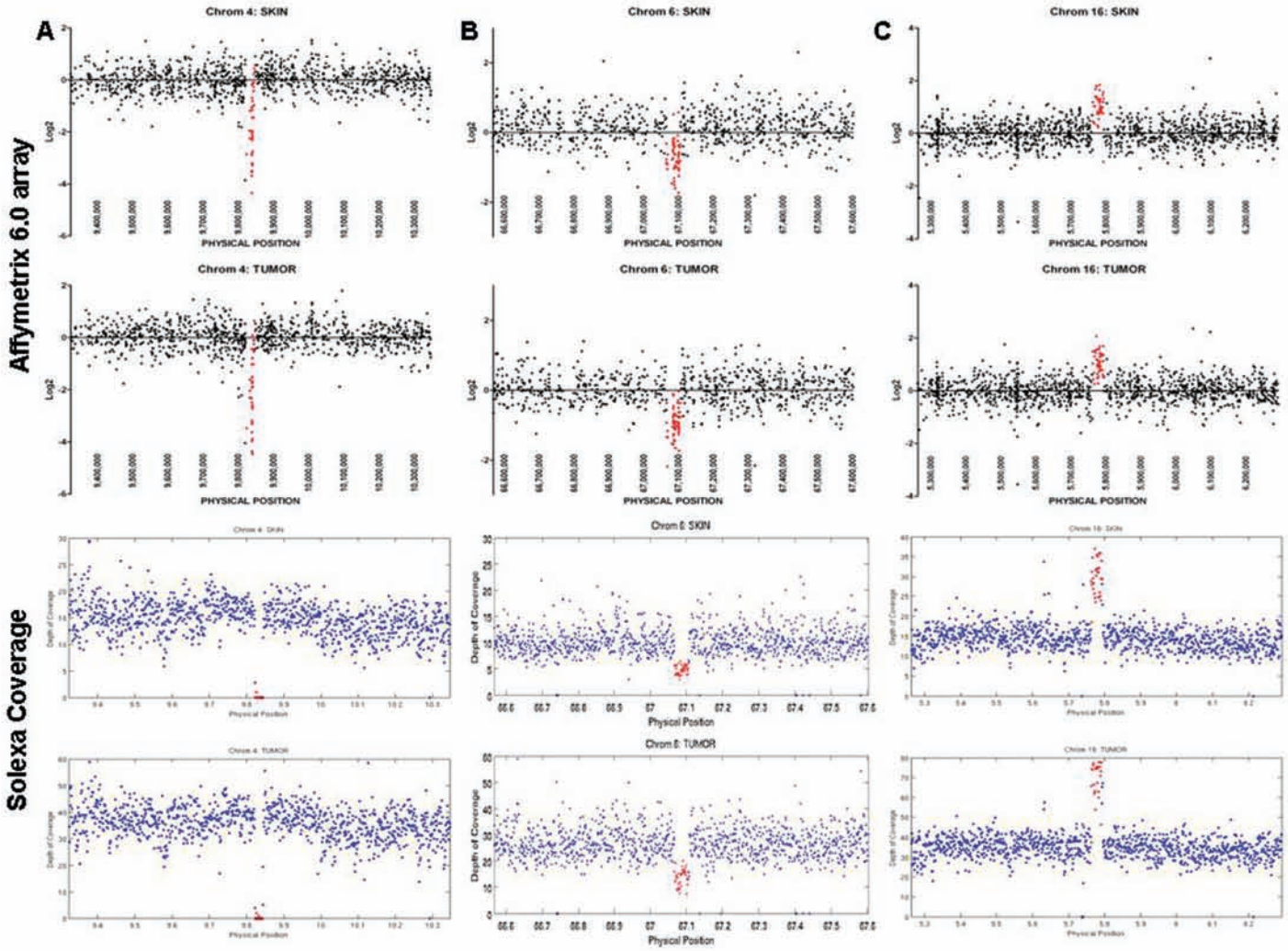
Supplementary Figure 1. Morphology and immunophenotype of AML in patient 933124.
(A) Bone marrow biopsy specimen demonstrates hypercellularity (>90%) with complete replacement (100/100 nucleated cells by manual differential) by a population of immature myeloblasts with folded nuclei and granular cytoplasm (inset). Original magnification, 10X (inset, 60X). (B) Flow cytometric analysis of peripheral blood demonstrates a blast population comprising 85.3% of nucleated cells with a uniform CD13+CD33+, CD177+CD34- immunophenotype. The blasts were variably myeloperoxidase positive and were negative for NBE (not shown).



Supplementary Figure 2. Copy number and loss of heterozygosity heatmap for 18 M1 patients. The results of copy number (CN) and loss of heterozygosity (LOH) analysis of 18 tumor-normal matched sample pairs assayed on Affymetrix SNP 6.0 arrays are shown. The index patient, 933124, is indicated by the bold font. For each sample pair, copy number as log2 ratio is shown on the left, LOH on the right. Copy number is designated by a color range from white to red, with deeper red indicating increasing copy number. LOH is shown in blue, while white indicates a neutral, or non-LOH state.



Supplementary Figure 3. Unsupervised clustering expression heatmap for 111 AML patients. Expression data from 111 AML patients analyzed using unsupervised clustering (Ward's) method is shown in the heatmap; 92 of the 111 patients are from the Discovery Set of 94 AML cases from Washington University. The other 19 cases were also collected at Washington University using identical criteria for inclusion in the study. The range of Z-score-normalized expression is designated by a green to red color range, with red indicating increasing expression levels. FAB classes (top row under the heatmap) and major cytogenetic categories of the AML samples (bottom row under the heatmap) are shown; the legends for each are shown on the right. The index patient, 933124, is indicated by yellow arrows.



Supplementary Figure 4. Inherited copy number variants detected by Solexa read counts and Affymetrix 6.0 SNP arrays. (A) Homozygous deletion. (B) Heterozygous deletion. (C) Single copy gain.

doi:10.1038/nature07485

Supplementary Table 1. Copy number variants in 93312.4.

Chr	SNP Tumor Start	SNP Tumor End	Size (bp)	Tumor Solexa Start	Tumor Solexa End	Tumor Log2	SNP Germline Start	SNP Germline End	Size (bp)	Germline Solexa Start	Germline Solexa End	Germline Log2	Tumor Depth(32.087)	% Coverage (Tumor)	Skin Depth(13.711)	% Coverage (Skin)	In DGV?	Loss/Gain is:	Genes on the interval	Frequency in Caucasian Controls (n=160)	Frequency in M1 patients (n=18)	Chi-square value	
1	72,541,006	72,583,736	42731			-1.39	72,541,524	72,583,736	42213			-1.59	0.08	0.25	0.05	0.36	yes	homozygous		0	71	5	ns	
1	150,822,330	150,852,342	30013			-1.52	150,822,330	150,852,862	30533			-1.53	0.21	0.65	0.05	0.36	yes	homozygous	LCEC3		62	6	ns	
1	167,500,598	167,508,390	7793			-2.92	167,500,598	167,508,390	7793			-2.86	0.08	0.25	0.06	0.44	yes	homozygous	NME7		21	2	ns	
2	34,562,136	34,590,561	28426			-1.81	34,552,819	34,590,561	37743			-2.15	0.38	1.18	0.2	1.46	yes	homozygous		0	25	4	ns	
2	35,831,294	35,841,451	10158			-1.90	35,831,294	35,841,451	10158			-2.09	0.21	0.65	0.09	0.66	yes	homozygous		0	34	4	ns	
2	106,249,661	106,251,789	2129			-3.66	106,247,145	106,249,778	2634			-3.69	1.73	5.39	0.67	4.89	yes	heterozygous		0	19	2	ns	
2	126,168,109	126,168,109	single probe	126,166,500	126,168,500	-3.33	126,168,109	126,168,109	single probe	126,166,500	126,168,500	-2.30	1	3.12	0	0.00	yes	homozygous		0	58	11	ns	
2	176,979,756	176,980,767	1011			-1.02	176,979,756	176,980,767	1011			-1.10	0	0.00	0	0.00	no	homozygous		0 N/A		1		
3	53,003,415	53,014,529	11115			-0.90	53,003,415	53,014,529	11115			-0.74	10.16	31.66	4.71	34.35	yes	homozygous	SFMBT1		25	7	0.0148	
4	9,823,258	9,840,596	17339			-1.03	9,823,258	9,840,596	17339			-1.10	0.01	0.03	0	0.00	yes	homozygous	LOC100129344		79	10	ns	
4	69,057,536	69,187,710	130175			-1.85	69,043,083	69,168,574	125492			-1.71	0.92	2.87	0.42	3.06	yes	homozygous	TMPRSS11E/UGT2B29P//UGT2B17//LOC100132651//LOC728807		19	3	ns	
4	173,665,151	173,665,206	55			-1.57	173,665,151	173,665,206	55			-1.22	0	0.00	0	0.00	yes	homozygous	GALNT17		82	16	0.0023	
5	12,868,780	12,873,076	4297			-2.51	12,868,780	12,873,076	4297			-2.08	0	0.00	0.02	0.15	yes	homozygous		0	15	2	ns	
5	17,534,599	17,658,332	123734			-0.85	17,534,599	17,658,332	123734			-0.96	8.25	25.71	3.5	25.53	yes	homozygous		27	0	1	ns	
5	57,361,784	57,369,290	7507			-0.78	57,361,784	57,369,290	7507			-0.82	0.01	0.03	0.01	0.07	yes	homozygous		0	102	10	ns	
6	31,388,802	31,404,430	15629			-1.59	31,388,802	31,404,430	15629			-1.93	4.15	12.93	1.73	12.62	yes	heterozygous		0	62	3	ns	
6	67,065,532	67,105,350	39819			-0.48	67,065,532	67,105,350	39819			-0.77	11.9	37.09	4.07	29.68	yes	heterozygous		0	21	3	ns	
7	118,621,125	118,621,125	single probe	118,621,500	118,622,500	-3.89	118,621,125	118,621,125	single probe	118,621,500	118,622,500	-4.33	0	0.00	1	7.29	yes	homozygous		0 N/A	N/A			
8	51,194,577	51,195,976	1400			-2.40	51,194,577	51,195,976	1400			-2.64	0.05	0.16	0.15	1.09	yes	homozygous	SNTG1		10	2	ns	
12	9,525,137	9,619,559	94423			-1.44	9,525,137	9,619,559	94423			-1.44	5.8	18.08	2.26	16.48	yes	heterozygous	OVOS		58	9	ns	
14	19,270,023	19,493,212	223190			0.93	19,270,023	19,493,212	223190			0.92	64.36	200.58	25.03	182.55	yes	gain +1	OR11K2P//OR4Q3//OR4H12P//OR4M1//OR4N1P//OR4N2//OR4K6P//OR4K3P//OR4K2//OR4K4P//OR4K5//OR4K1		26	2	ns	
16	5,762,457	5,792,282	29826			0.99	5,762,457	5,792,957	30501			1.04	63.47	197.81	27	196.92	no	gain +1		0	1	1	ns	
16	76,929,941	76,938,764	8824			-1.73	76,929,941	76,938,764	8824			-2.03	0.04	0.12	0.03	0.22	yes	homozygous	WWOX		43	6	ns	
17	18,296,117	18,405,946	109830			-1.24	18,259,671	18,405,946	146276			-1.43	3.23	10.07	1.69	12.33	yes	heterozygous	LOC252968//LOC654346//NOS2B//LOC220594//FAM106A//LOC252840		23	4	ns	
17	41,560,151	41,832,098	271948			-0.62	41,533,271	41,832,098	298828			-0.56	15.65	48.77	6.12	44.64	yes	heterozygous	KIAA1267//LOC644253//LOC644256//LOC100132570//LRRC37A//ARL17//LOC729008//LOC728806		57	7	ns	
21	43,795,289	43,795,289	single probe	43,797,500	43,798,500	-5.68	43,795,289	43,795,289	single probe	43,797,500	43,798,500	-4.39	1.91	5.95	0	0.00	yes	homozygous	RPL31P1//HSF2BP		48	7	ns	

Supplementary Table 2. MDS/AML candidate genes.

Gene	GeneID	Gene	GeneID	Gene	GeneID
ABL2	27	FLT3	2322	NUP214	8021
AF15Q14	57082	FNBP1	23048	NUP98	4928
ARHGEF12	23365	FUS	2521	PALB2	79728
ARNT	405	GAS7	8522	PDGFRA	5156
BAALC	79870	GATA1	2623	PDGFRB	5159
BLM	641	GFI1	2672	PER1	5187
BRAF	673	GMPS	8833	PICALM	8301
BRCA2	675	GRAF	23092	PML	5371
BRIP1	83990	HAX1	10456	PMX1	5396
CBFA2T1	862	HEAB	10978	PNUTL1	5413
CBFA2T3	863	HLXB9	3110	PRDM16	63976
CBFB	865	HOXA13	3209	PSIP2	11168
CBL	867	HOXA9	3205	PTEN	5728
CDKN2A	1029	HOXC11	3227	PTPN11	5781
CDX2	1045	HOXC13	3229	RARA	5914
CEBPA	1050	HOXD11	3237	RB1	5925
CHIC2	26511	HOXD13	3239	RBM15	64783
CREBBP	1387	JAK2	3717	RPL22	6146
CSF1R	1436	KIT	3815	RPN1	6184
CSF3R	1441	KRAS	3845	RPS19	6223
DDX10	1662	LASP1	3927	RPS24	6229
DEK	7913	LCX	80312	RUNX1	861
DKC1	1736	MDS1	4197	RUNXBP2	799
ELA2	1991	MDS2	259283	SBDS	51119
ELF4	2000	MKL1	57591	SEPT6	23157
EP300	2033	MLF1	4291	SET	6418
ERG	2078	MLL	4297	SMAD4	4089
ETV6	2120	MN1	4330	SOCS1	8651
EVI1	2122	MPL	4352	SPI1	6688
FACL6	23305	MSF	10801	SSH3BP1	10006
FANCA	2175	MYH11	4629	SYK	6850
FANCB	2187	MYST4	23522	TERC	7012
FANCC	2176	NCOA2	10499	TIF1	8805
FANCD2	2177	NF1	4763	TOP1	7150
FANCE	2178	NIN	51199	TP53	7157
FANCF	2188	NOTCH1	4851	TRIP11	9321
FANCG	2189	NPM1	4869	WHSC1L1	54904
FANCI	55215	NRAS	4893	WT1	7490
FANCL	55120	NSD1	64324	ZNF145	7704
FANCM	57697	NUMA1	4926		

Supplementary Table 3. Validated germline non-synonymous variants in MDS/AML genes.

Gene_name	Ensembl_transcript_id	Chromosome	Start_position (B36)	Reference_allele	Variant_allele	in dbSNP?	Variant_type	Amino_acid_change	OMIM
BRCA2	NM_000059	13	31804729	A	C	yes	missense	p.N372H	600185.0013
FLT3	ENST00000380982	13	27524716	C	T	no	missense	p.V194M	
PALB2	NM_024675	16	23545216	G	A	no	missense	p.P864S	
TP53	NM_000546	17	7520197	G	C	yes	missense	p.P72R	*191170.0005
TRIP11	ENST00000267622	14	91510761	G	A	no	missense	p.T1846I	

Supplementary Table 4. Predicted variants from -10kb to +5kb of annotated 5' and 3' boundaries of MDS/AML genes.

Hugo Symbol	Transcript Name	Chromosome	SNP Location (Build36)	Variant Allele	# of tumor reads supporting variant allele	# of skin reads supporting variant allele	Reference Allele	# of tumor reads supporting the reference allele	# of skin reads supporting the reference allele	Variant Type	Amino Acid Change	Location in dbSNP-127 (0: No, 1: Yes	Location in Watson (0: No, 1: Yes)	Location in Venter (0: No, 1: Yes)	Conservation
PRDM16	ENST00000270722	1	2978316	T	22	2	A	23	4	intronic	Not Applicable	1	1	0	Unknown
PRDM16	ENST00000270722	1	2982894	C	14	9	T	11	4	intronic	Not Applicable	1	1	0	0.001
PRDM16	ENST00000270722	1	2985493	T	18	5	C	10	16	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	2991700	A	14	15	G	28	12	intronic	Not Applicable	0	0	0	0.001
PRDM16	ENST00000270722	1	2996175	G	39	4	T	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	2997535	A	41	11	G	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3000563	T	9	10	G	10	14	intronic	Not Applicable	1	0	0	0.004
PRDM16	ENST00000270722	1	3000713	A	23	6	G	10	11	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3000829	C	25	9	A	22	3	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3001146	G	12	7	C	11	3	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3001189	C	38	20	T	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3001418	A	13	9	G	21	15	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3002186	C	11	9	T	12	7	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3003137	C	11	5	T	16	6	intronic	Not Applicable	1	1	0	0.008
PRDM16	ENST00000270722	1	3003382	C	19	16	T	14	6	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3003493	A	16	15	G	14	8	intronic	Not Applicable	1	1	0	0.001
PRDM16	ENST00000270722	1	3003895	A	9	15	G	15	11	intronic	Not Applicable	1	1	0	0.002
PRDM16	ENST00000270722	1	3004254	G	15	4	A	12	5	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3004493	C	14	9	A	13	9	intronic	Not Applicable	1	1	1	0.003
PRDM16	ENST00000270722	1	3004797	A	26	5	G	20	4	intronic	Not Applicable	0	0	0	0.003
PRDM16	ENST00000270722	1	3005339	A	25	11	G	23	9	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3005977	A	10	2	G	20	4	intronic	Not Applicable	0	0	0	0.003
PRDM16	ENST00000270722	1	3009487	A	19	11	G	29	8	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3011412	A	26	5	G	32	7	intronic	Not Applicable	1	0	0	0.001
PRDM16	ENST00000270722	1	3011547	T	24	10	C	21	4	intronic	Not Applicable	1	0	0	0.001
PRDM16	ENST00000270722	1	3012992	A	14	12	G	14	19	intronic	Not Applicable	1	0	0	0.012
PRDM16	ENST00000270722	1	3013565	T	33	2	A	12	13	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3014125	C	53	23	A	0	0	intronic	Not Applicable	1	0	0	0.01
PRDM16	ENST00000270722	1	3015706	A	16	10	T	10	4	intronic	Not Applicable	1	0	0	0.002
PRDM16	ENST00000270722	1	3016120	A	13	12	T	22	7	intronic	Not Applicable	1	0	0	0.002
PRDM16	ENST00000270722	1	3020484	C	14	12	G	17	3	intronic	Not Applicable	1	0	0	0.174
PRDM16	ENST00000270722	1	3020688	G	12	4	A	24	18	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3020691	C	14	8	T	24	18	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3020982	G	32	11	A	19	9	intronic	Not Applicable	1	0	0	0.008
PRDM16	ENST00000270722	1	3021182	A	19	14	G	16	16	intronic	Not Applicable	0	0	0	0.001
PRDM16	ENST00000270722	1	3022425	C	18	4	G	16	9	intronic	Not Applicable	1	0	0	0.001
PRDM16	ENST00000270722	1	3022949	T	18	7	C	10	16	intronic	Not Applicable	0	0	0	0.042
PRDM16	ENST00000270722	1	3024466	G	21	14	A	16	25	intronic	Not Applicable	1	0	0	0.088
PRDM16	ENST00000270722	1	3025087	G	38	11	A	30	8	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3028390	C	17	7	T	10	9	intronic	Not Applicable	1	0	1	0.994
PRDM16	ENST00000270722	1	3028525	G	28	10	A	25	6	intronic	Not Applicable	1	1	1	0.001
PRDM16	ENST00000270722	1	3035475	C	44	26	T	19	17	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3035871	G	16	4	A	23	22	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3036323	C	31	6	T	45	6	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3037032	G	13	2	A	12	5	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3037312	G	17	10	A	31	6	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3037472	A	21	11	G	25	3	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3044236	A	33	25	G	16	12	intronic	Not Applicable	0	0	0	0.001
PRDM16	ENST00000270722	1	3046509	G	19	4	C	21	10	intronic	Not Applicable	1	0	1	0.002
PRDM16	ENST00000270722	1	3047648	C	16	10	T	23	4	intronic	Not Applicable	0	0	0	0.997
PRDM16	ENST00000270722	1	3048230	A	18	12	G	9	6	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3053438	G	16	16	A	21	11	intronic	Not Applicable	0	0	0	0.019
PRDM16	ENST00000270722	1	3057565	A	16	18	C	13	9	intronic	Not Applicable	1	0	0	0.002
PRDM16	ENST00000270722	1	3060877	G	19	18	C	19	6	intronic	Not Applicable	1	0	0	0.003
PRDM16	ENST00000270722	1	3063415	C	42	7	T	16	19	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3068589	G	19	8	A	17	13	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3070358	T	26	6	C	23	6	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3070715	C	19	9	A	24	5	intronic	Not Applicable	1	1	1	0.005
PRDM16	ENST00000270722	1	3071169	C	15	23	T	20	9	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3073795	T	25	16	C	13	18	intronic	Not Applicable	0	0	0	0.002
PRDM16	ENST00000270722	1	3078802	T	46	9	C	0	0	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3078920	C	76	22	G	1	0	intronic	Not Applicable	1	1	1	0.037
PRDM16	ENST00000270722	1	3083750	A	40	10	G	25	27	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3086215	A	9	14	G	16	13	intronic	Not Applicable	1	0	0	0.003
PRDM16	ENST00000270722	1	3086338	C	39	7	T	0	0	intronic	Not Applicable	1	1	1	0.01
PRDM16	ENST00000270722	1	3086861	T	25	3	C	11	5	intronic	Not Applicable	1	1	0	0.002
PRDM16	ENST00000270722	1	3087608	A	34	35	G	108	49	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3087772	A	18	5	G	30	28	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3087833	A	22	9	C	50	17	intronic	Not Applicable	0	0	1	Unknown
PRDM16	ENST00000270722	1	3087850	A	48	18	G	58	22	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3088068	A	29	6	G	79	44	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3088100	A	62	25	G	38	18	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3088101	T	38	14	C	56	31	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3088220	G	27	21	A	17	13	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3088489	T	23	16	C	35	27	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3088745	T	46	11	C	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3088761	C	44	17	T	0	0	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3089465	T	47	8	C	24	5	intronic	Not Applicable	0	0	0	0.031
PRDM16	ENST00000270722	1	3091593	A	23	15	G	22	21	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3094942	A	36	8	G	19	11	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3095136	G	15	3	T	27	9	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3095423	T	24	6	G	17	11	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3096165	G	57	21	A	0	0	intronic	Not Applicable	1	1	1	0.001
PRDM16	ENST00000270722	1	3098276	G	51	20	T	0	0	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3098377	A	58	16	G	0	0	intronic	Not Applicable	1	1	0	Unknown
PRDM16	ENST00000270722	1	3105581	G	51	11	C	0	0	intronic	Not Applicable	1	1	1	0.997
PRDM16	ENST00000270722	1	3128416	A	15	12	G	18	9	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3155488	G	19	9	A	21	10	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3161790	T	12	6	C	18	8	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3162133	C	54	27	T	0	0	intronic	Not Applicable	1	1	1	0.001
PRDM16	ENST00000270722	1	3162403	C	21	12	G	32	14	intronic	Not Applicable	0	0	0	0.028
PRDM16	ENST00000270722	1	3162562	A	13	16	G	24	3	intronic	Not Applicable	1	0	0	0.022
PRDM16	ENST00000270722	1	3165588	G	25	10	A	15	17	intronic	Not Applicable	1	0	1	0.001
PRDM16	ENST00000270722	1	3168276	G	23	8	A	18	6	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3168347	C	30	8	G	14	16	intronic	Not Applicable	0	0	0	0.002
PRDM16	ENST00000270722	1	3168710	G	39	1	A	25	7	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3170018	G	54	11	T	17	9	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3170463	G	18	13	A	10	24	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3171275	A	12	3	G	19	6	intronic	Not Applicable	1	0	0	0.849
PRDM16	ENST00000270722	1	3171559	C	8	7	T	14	10	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3171782	G	14	12	A	12	7	intronic	Not Applicable	1	0	1	0.293
PRDM16	ENST00000270722	1	3172115	A	12	9	T	17	5	intronic	Not Applicable	1	0	1	0.001
PRDM16	ENST00000270722	1	3172287	C	11	8	G	13	3	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3173727	G	14	7	A	24	9	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3175699	A	44	10	G	34	15	intronic	Not Applicable	1	0	0	0.418
PRDM16	ENST00000270722	1	3176469	A	23	9	T	23	5	intronic	Not Applicable	1	0	0	0.78
PRDM16	ENST00000270722	1	3177045	G	22	12	T	27	13	intronic	Not Applicable	1	0	0	0.696
PRDM16	ENST00000270722	1	3177939	G	11	17	A	9	5	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3178003	G	15	11	C	20	14	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3178055	A	15	9	G	14	4	intronic	Not Applicable	0	0	0	0.001
PRDM16	ENST00000270722	1	3178169	G	14	16	A	21	10	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3178365	T	27	9	C	28	19	intronic	Not Applicable	1	0	1	0.002
PRDM16	ENST00000270722	1	3179574	G	12	5	A	28	1	intronic	Not Applicable	1	0	1	0.026
PRDM16	ENST00000270722	1	3179871	G	12	6	T	29	17	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3182833	G	24	9	A	16	6	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3183805	A	23	19	G	16	7	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3183849	T	15	10	A	11	14	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3185419	A	13	10	G	21	14	intronic	Not Applicable	1	0	1	0.021
PRDM16	ENST00000270722	1	3186540	A	21	7	G	11	9	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3187607	A	40	8	C	27	11	intronic	Not Applicable	1	0	0	0.001
PRDM16	ENST00000270722	1	3190993	C	20	6	A	29	5	intronic	Not Applicable	1	1	0	Unknown
PRDM16	ENST00000270722	1	3194704	A	24	20	G	12	10	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3196507	T	17	11	G	21	12	intronic	Not Applicable	0	0	0	0.001
PRDM16	ENST00000270722	1	3198183	A	11	7	G	18	9	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3198986	T	14	12	C	22	10	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3199356	C	35	1	T	15	8	intronic	Not Applicable	1	1	1	0.001
PRDM16	ENST00000270722	1	3199783	G	26	13	A	11	12	intronic	Not Applicable	1	1	1	0.007
PRDM16	ENST00000270722	1	3200225	C	13	5	T	16	1	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3201318	C	16	5	A	8	13	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3202782	G	31	7	C	13	8	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3202791	A	29	7	G	15	8	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3211471	C	22	5	T	31	8	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3217276	G	63	51	C	0	0	intronic	Not Applicable	1	0	1	0.003
PRDM16	ENST00000270722	1	3223491	C	53	19	T	0	0	intronic	Not Applicable	1	0	1	0.003
PRDM16	ENST00000270722	1	3225901	C	53	17	T	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3227034	T	13	17	C	16	16	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3227661	T	39	20	C	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3227812	A	21	3	C	20	11	intronic	Not Applicable	0	0	0	0.019
PRDM16	ENST00000270722	1	3228051	G	20	11	A	9	3	intronic	Not Applicable	0	0	0	0.135
PRDM16	ENST00000270722	1	3230995	T	20	11	C	13	9	intronic	Not Applicable	1	0	1	0.003
PRDM16	ENST00000270722	1	3232314	T	75	27	C	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3235953	A	53	15	G	0	0	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3240014	A	57	18	G	0	0	intronic	Not Applicable	1	0	1	0.001
PRDM16	ENST00000270722	1	3241153	T	57	20	C	1	0	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3241184	T	65	21	G	1	0	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3241964	T	38	8	C	0	0	intronic	Not Applicable	1	1	1	0.502
PRDM16	ENST00000270722	1	3243475	G	53	47	A	0	0	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3243538	T	75	19	C	0	0	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3245399	A	43	21	G	0	1	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3247911	T	46	15	C	0	1	intronic	Not Applicable	1	0	1	0.001
PRDM16	ENST00000270722	1	3248384	C	68	12	T	0	0	intronic	Not Applicable	1	0	1	0.014
PRDM16	ENST00000270722	1	3248402	A	66	13	T	0	0	intronic	Not Applicable	1	0	1	0.018
PRDM16	ENST00000270722	1	3248761	C	45	27	T	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3249229	G	51	19	A	1	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3251490	G	17	10	C	29	1	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3251542	T	46	26	C	0	0	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3253363	T	52	12	C	0	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3259570	C	20	2	A	27	20	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3259688	G	19	4	A	10	3	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3261459	T	24	16	A	11	10	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3261466	A	19	8	G	12	11	intronic	Not Applicable	0	0	0	0.001
PRDM16	ENST00000270722	1	3261836	A	30	10	T	14	11	intronic	Not Applicable	0	0	0	0.005
PRDM16	ENST00000270722	1	3266234	A	46	17	G	0	0	intronic	Not Applicable	1	1	0	Unknown
PRDM16	ENST00000270722	1	3271806	A	10	6	G	14	8	intronic	Not Applicable	0	1	0	0.001
PRDM16	ENST00000270722	1	3272346	T	22	14	A	34	21	intronic	Not Applicable	0	0	0	Unknown
PRDM16	ENST00000270722	1	3275010	T	49	14	C	0	0	intronic	Not Applicable	1	1	0	Unknown
PRDM16	ENST00000270722	1	3284282	G	36	6	A	14	5	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3295312	G	41	10	A	0	1	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3305678	A	49	12	G	0	0	intronic	Not Applicable	1	0	0	Unknown
PRDM16	ENST00000270722	1	3308392	C	46	20	T	0	0	intronic	Not Applicable	1	0	0	0.001
PRDM16	ENST00000270722	1	3308629	G	40	13	C	1	0	intronic	Not Applicable	1	0	1	Unknown
PRDM16	ENST00000270722	1	3310217	A	24	14	G	63	27	intronic	Not Applicable	0	0	0	0.047
PRDM16	ENST00000270722	1	3316235	A	25	12	G	75	37	intronic	Not Applicable	0	0	0	0.116
PRDM16	ENST00000270722	1	3316559	A	18	13	G	47	10	intronic	Not Applicable	0	0	0	0.796
PRDM16	ENST00000270722	1	3327403	A	39	19	G	0	0	intronic	Not Applicable	1	1	1	Unknown
PRDM16	ENST00000270722	1	3330715	C	38	24	A	0	0	intronic	Not Applicable	1	0	1	0.003
PRDM16	ENST00000270722	1	3339490	A	28	15	G	10	4	intronic	Not Applicable	0	0	0	Unknown
PRDM16	NM_022114	1	3342207	C	53	18	T	0	0	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown
PRDM16	NM_022114	1	3342644	G	41	11	A	0	0	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown
PRDM16	NM_022114	1	3342732	C	22	17	A	21	2	3_prime_untranslated_region	Not Applicable	1	1	0	Unknown
PRDM16	NM_022114	1	3343809	G	54	19	A	0	0	3_prime_untranslated_region	Not Applicable	1	1	1	0.498
RPL22	NM_000983	1	6176184	T	343	389	G	52	34	intronic	Not Applicable	0	0	0	Unknown
RPL22	NM_000983	1	6176211	G	1560	1147	T	43	26	intronic	Not Applicable	0	0	0	Unknown
RPL22	NM_000983	1	6176222	G	105	214	T	41	20	intronic	Not Applicable	0	0	0	Unknown
RPL22	NM_000983	1	6181381	G	16	0	A	14	5	intronic	Not Applicable	1	0	0	0.001
RPL22	NM_000983	1	6181612	T	21	13	C	18	13	intronic	Not Applicable	1	0	0	Unknown
RPL22	NM_000983	1	6181677	T	41	10	C	12	8	intronic	Not Applicable	1	0	0	Unknown
CSF3R	NM_156039	1	36705683	C	23	15	T	20	3	intronic	Not Applicable	1	0	0	Unknown
MPL	ENST00000372470	1	43582992	A	22	6	G	14	12	intronic	Not Applicable	1	0	0	0.001
MPL	ENST00000372470	1	43584662	A	11	2	G	10	6	intronic	Not Applicable	1	0	0	Unknown
GFI1	NM_005263	1	92713438	T	28	13	G	15	10	3_prime_untranslated_region	Not Applicable	1	0	0	Unknown
GFI1	NM_005263	1	92718095	C	46	18	T	0	0	intronic	Not Applicable	1	1	1	Unknown
GFI1	NM_005263	1	92720015	T	42	14	C	0	0	intronic	Not Applicable	1	1	0	Unknown
GFI1	NM_005263	1	92722903	A	18	16	G	12	5	intronic	Not Applicable	0	0	0	Unknown
MLL1	ENST00000369784	1	110685092	T	13	3	A	19	6	silent	p.P514	1	0	0	0.874
RBM15	NM_022768	1	110685092	T	13	3	A	19	6	silent	p.P514	1	0	0	0.874
NRAS	ENST00000369533	1	115079220	T	26	13	C	40	4	intronic	Not Applicable	1	0	0	0.017
NRAS	ENST00000369533	1	115084828	G	26	7	T	20	4	intronic	Not Applicable	0	0	0	0.039
NRAS	ENST00000369533	1	115090818	A	29	6	G	15	5	intronic	Not Applicable	1	1	1	0.001
NRAS	ENST00000369533	1	115097314	T	42	9	A	30	1	intronic	Not Applicable	0	0	0	0.001
NRAS	ENST00000369533	1	115098507	C	42	20	G	0	0	intronic	Not Applicable	1	1	1	0.001
NRAS	ENST00000369533	1	115098897	G	10	2	A	8	2	intronic	Not Applicable	1	1	1	0.003

ARNT	ENST00000322733	1	149057453	G	41	4	A	0	0	intronic	Not Applicable	1	1	1	0.013
ARNT	ENST00000322733	1	149068090	C	94	12	T	0	0	intronic	Not Applicable	1	1	1	0.002
ARNT	ENST00000322733	1	149083510	A	45	7	G	0	0	intronic	Not Applicable	1	0	1	Unknown
ABL2	ENST00000344730	1	177342378	G	63	21	A	0	0	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown
ABL2	NM_007314	1	177356114	C	27	6	A	30	2	intronic	Not Applicable	1	1	1	Unknown
ABL2	NM_007314	1	177359364	C	13	5	A	19	1	intronic	Not Applicable	1	1	1	0.004
ABL2	NM_007314	1	177361466	A	13	8	G	33	3	intronic	Not Applicable	1	1	1	0.005
ABL2	NM_007314	1	177373522	G	13	13	A	8	1	intronic	Not Applicable	1	1	0	0.002
ABL2	NM_007314	1	177383625	G	11	3	A	15	3	intronic	Not Applicable	1	1	0	Unknown
ABL2	NM_007314	1	177387418	C	13	13	A	19	3	intronic	Not Applicable	1	0	0	0.078
ABL2	NM_007314	1	177389348	C	26	9	T	16	10	intronic	Not Applicable	1	0	0	0.003
ABL2	NM_007314	1	177399844	A	24	8	T	56	7	intronic	Not Applicable	1	1	0	0.003
ABL2	NM_007314	1	177425555	A	10	5	G	19	16	intronic	Not Applicable	1	1	0	0.035
ABL2	NM_007314	1	177426022	A	22	6	C	16	2	intronic	Not Applicable	1	1	0	0.003
ABL2	NM_007314	1	177436438	A	16	7	T	21	4	intronic	Not Applicable	1	1	0	Unknown
ABL2	NM_007314	1	177443021	A	9	6	G	21	13	intronic	Not Applicable	1	1	0	0.002
ABL2	NM_007314	1	177462400	G	18	4	A	22	9	intronic	Not Applicable	1	1	0	0.038
MYST4	NM_012330	10	76269316	T	38	7	C	22	2	intronic	Not Applicable	1	0	0	0.611
MYST4	NM_012330	10	76271811	C	12	3	T	21	3	intronic	Not Applicable	1	0	0	Unknown
MYST4	NM_012330	10	76280515	G	52	14	A	21	9	intronic	Not Applicable	1	0	0	0.666
MYST4	NM_012330	10	76287485	C	20	10	T	11	5	intronic	Not Applicable	1	0	0	0.57
MYST4	NM_012330	10	76288814	T	16	4	C	31	3	intronic	Not Applicable	1	0	0	0.002
MYST4	NM_012330	10	76302298	C	13	5	G	9	6	intronic	Not Applicable	1	0	0	0.005
MYST4	NM_012330	10	76313003	T	21	5	C	10	19	intronic	Not Applicable	1	0	0	0.118
MYST4	NM_012330	10	76316664	C	20	13	T	17	11	intronic	Not Applicable	1	0	0	0.122
MYST4	NM_012330	10	76316981	G	19	1	A	14	7	intronic	Not Applicable	1	0	0	Unknown
MYST4	NM_012330	10	76317493	G	40	10	A	34	12	intronic	Not Applicable	1	0	0	Unknown
MYST4	NM_012330	10	76319255	C	10	1	T	19	2	intronic	Not Applicable	1	0	0	0.003
MYST4	NM_012330	10	76323726	T	21	2	C	12	4	intronic	Not Applicable	1	0	0	0.002
MYST4	NM_012330	10	76328156	C	15	10	T	9	9	intronic	Not Applicable	1	0	0	0.007
MYST4	NM_012330	10	76334842	T	12	4	C	24	3	intronic	Not Applicable	1	1	0	Unknown
MYST4	NM_012330	10	76335114	C	26	7	A	11	4	intronic	Not Applicable	1	0	0	0.976
MYST4	NM_012330	10	76339367	T	16	12	C	11	11	intronic	Not Applicable	0	0	0	Unknown
MYST4	NM_012330	10	76340855	A	9	6	G	9	12	intronic	Not Applicable	1	0	0	0.004
MYST4	NM_012330	10	76343212	G	35	3	C	13	8	intronic	Not Applicable	1	0	0	0.01
MYST4	NM_012330	10	76356923	A	42	11	T	18	6	intronic	Not Applicable	1	0	0	0.383
MYST4	NM_012330	10	76359234	G	43	5	A	0	0	intronic	Not Applicable	1	1	1	0.111
MYST4	NM_012330	10	76370850	A	12	6	G	19	14	intronic	Not Applicable	1	0	0	Unknown
MYST4	NM_012330	10	76373993	G	24	14	A	10	6	intronic	Not Applicable	1	0	0	0.043
MYST4	NM_012330	10	76386783	G	16	4	A	40	2	intronic	Not Applicable	1	0	0	Unknown
MYST4	NM_012330	10	76393965	C	35	2	T	20	7	intronic	Not Applicable	1	0	0	Unknown
MYST4	NM_012330	10	76406706	A	35	6	C	22	8	intronic	Not Applicable	1	0	0	0.002
MYST4	NM_012330	10	76438438	A	18	4	G	26	2	intronic	Not Applicable	1	0	0	Unknown
RPS24	NM_001026	10	79466732	C	58	25	G	0	0	intronic	Not Applicable	1	1	1	Unknown
PTEN	NM_000314	10	89614616	G	17	4	A	15	7	intronic	Not Applicable	0	0	0	0.242
PTEN	NM_000314	10	89695465	A	21	10	C	15	8	intronic	Not Applicable	1	1	0	1
NUP98	NM_016320	11	3657706	G	68	10	A	0	0	intronic	Not Applicable	1	1	0	Unknown
NUP98	NM_016320	11	3662852	A	52	12	G	0	0	intronic	Not Applicable	1	1	0	Unknown
NUP98	NM_016320	11	3663189	T	55	18	G	0	0	intronic	Not Applicable	1	1	0	Unknown
NUP98	NM_016320	11	3671389	C	13	5	G	28	5	intronic	Not Applicable	0	0	0	0.006
NUP98	NM_016320	11	3687294	T	30	5	C	14	8	intronic	Not Applicable	1	1	1	0.002
NUP98	NM_016320	11	3691516	C	10	5	A	28	9	intronic	Not Applicable	1	1	1	Unknown
NUP98	NM_016320	11	3745945	C	8	2	T	11	6	intronic	Not Applicable	1	1	1	Unknown
WT1	NM_024426	11	32367350	G	22	10	A	40	3	intronic	Not Applicable	1	1	0	0.001
WT1	NM_024426	11	32374245	T	19	8	A	14	1	intronic	Not Applicable	1	1	0	0.001
WT1	NM_024426	11	32374521	C	16	5	T	28	11	silent	p.R369	1	1	0	0.458
WT1	NM_024426	11	32375181	A	18	16	T	12	3	intronic	Not Applicable	1	1	0	Unknown
WT1	NM_024426	11	32375928	T	13	4	A	26	6	intronic	Not Applicable	1	1	0	0.001
WT1	NM_024426	11	32378553	A	38	8	G	21	5	intronic	Not Applicable	1	1	0	0.997
WT1	NM_024426	11	32383280	T	20	2	C	14	4	intronic	Not Applicable	1	1	0	Unknown
WT1	NM_024426	11	32384004	G	9	8	T	18	11	intronic	Not Applicable	1	1	0	Unknown
WT1	NM_024426	11	32390756	A	13	3	G	14	6	intronic	Not Applicable	1	1	0	Unknown
WT1	NM_024426	11	32399212	G	24	7	A	11	6	intronic	Not Applicable	1	1	0	Unknown
WT1	NM_024426	11	32400596	G	25	3	A	14	5	intronic	Not Applicable	1	1	1	Unknown
WT1	NM_024426	11	32400951	C	36	5	T	28	6	intronic	Not Applicable	1	1	0	0.007
WT1	NM_024426	11	32405145	C	16	8	A	10	1	intronic	Not Applicable	1	0	0	0.204
WT1	NM_024426	11	32405471	G	21	10	C	20	6	intronic	Not Applicable	1	1	0	0.001
WT1	NM_024426	11	32407466	G	24	11	A	16	5	intronic	Not Applicable	1	1	0	Unknown
WT1	NM_024426	11	32408496	G	13	3	T	17	3	intronic	Not Applicable	0	0	0	Unknown
WT1	NM_024426	11	32408564	C	472	148	G	12	6	intronic	Not Applicable	0	0	0	0.14
WT1	NM_024426	11	32409501	G	13	11	C	22	3	intronic	Not Applicable	1	0	1	Unknown
WT1	NM_024426	11	32412103	A	20	14	C	30	2	intronic	Not Applicable	1	1	1	Unknown
SPI1	ENST00000378538	11	47334230	C	82	37	A	1	0	intronic	Not Applicable	1	1	1	0.003
SPI1	ENST00000378538	11	47334821	C	22	17	T	32	10	intronic	Not Applicable	1	1	0	0.91
SPI1	ENST00000378538	11	47334972	T	31	33	C	50	13	intronic	Not Applicable	1	1	0	0.357
SPI1	ENST00000378538	11	47334975	G	37	17	A	30	29	intronic	Not Applicable	1	0	0	0.376
SPI1	ENST00000378538	11	47336191	A	48	37	G	0	0	intronic	Not Applicable	1	1	0	Unknown
SPI1	ENST00000378538	11	47337169	A	23	6	G	19	8	intronic	Not Applicable	1	0	1	0.038
SPI1	ENST00000378538	11	47337571	T	27	15	C	21	7	intronic	Not Applicable	0	0	0	Unknown
SPI1	ENST00000378538	11	47342649	C	57	23	T	0	0	intronic	Not Applicable	1	1	0	Unknown
SPI1	ENST00000378538	11	47344395	G	43	7	C	0	0	intronic	Not Applicable	1	1	1	0.073
SPI1	ENST00000378538	11	47346597	A	45	27	G	0	0	intronic	Not Applicable	1	1	1	0.017
SPI1	ENST00000378538	11	47347750	A	44	12	G	0	0	intronic	Not Applicable	1	1	1	0.005
SPI1	ENST00000378538	11	47349144	G	24	7	C	16	3	intronic	Not Applicable	0	0	0	0.129
SPI1	ENST00000378538	11	47350214	C	66	24	T	0	0	intronic	Not Applicable	1	1	1	Unknown
SPI1	ENST00000378538	11	47350881	T	28	13	C	18	7	intronic	Not Applicable	1	1	0	Unknown
SPI1	ENST00000378538	11	47350914	C	42	13	T	0	6	intronic	Not Applicable	1	1	0	Unknown
SPI1	ENST00000378538	11	47351816	A	41	15	G	0	0	intronic	Not Applicable	1	0	1	0.007
SPI1	ENST00000378538	11	47352671	T	21	4	C	22	8	intronic	Not Applicable	0	0	0	0.025
SPI1	ENST00000378538	11	47353230	A	13	14	G	14	4	intronic	Not Applicable	1	1	0	0.001
SPI1	ENST00000378538	11	47353279	G	39	24	A	1	0	intronic	Not Applicable	1	1	1	Unknown
SPI1	ENST00000378538	11	47353581	A	16	8	G	21	7	intronic	Not Applicable	0	0	0	Unknown
SPI1	ENST00000378538	11	47355411	G	39	28	A	1	0	intronic	Not Applicable	1	1	0	0.003
SPI1	ENST00000378538	11	47355716	G	39	33	A	0	0	intronic	Not Applicable	1	1	1	Unknown
SPI1	ENST00000378538	11	47356178	A	14	3	G	16	9	intronic	Not Applicable	1	1	0	0.006
NUMA1	NM_006185	11	71391726	C	42	18	T	0	0	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown
NUMA1	NM_006185	11	71393746	C	22	12	A	0	1	intronic	Not Applicable	1	1	1	Unknown
NUMA1	NM_006185	11	71394309	T	40	8	C	0	0	intronic	Not Applicable	1	1	1	0.007
NUMA1	NM_006185	11	71398264	C	56	18	T	0	0	intronic	Not Applicable	1	1	1	Unknown
NUMA1	NM_006185	11	71399055	T	10	6	C	18	12	intronic	Not Applicable	1	1	0	0.002
NUMA1	NM_006185	11	71405070	C	49	12	A	1	0	intronic	Not Applicable	1	1	1	0.003
NUMA1	NM_006185	11	71407304	G	58	19	A	0	0	intronic	Not Applicable	1	1	1	0.023
NUMA1	NM_006185	11	71411859	C	51	13	T	0	0	intronic	Not Applicable	1	1	1	0.001
NUMA1	NM_006185	11	71415002	T	38	10	C	0	0	intronic	Not Applicable	1	1	1	0.012
NUMA1	NM_006185	11	71415734	C	40	13	G	0	0	intronic	Not Applicable	1	1	1	Unknown
NUMA1	NM_006185	11	71417071	A	29	8	G	16	4	intronic	Not Applicable	1	0	1	Unknown
NUMA1	NM_006185	11	71420180	T	9	8	C	0	0	intronic	Not Applicable	1	1	0	0.016
NUMA1	NM_006185	11	71421041	A	54	12	T	0	0	intronic	Not Applicable	1	1	1	0.041
NUMA1	NM_006185	11	71425076	T	44	13	C	0	0	intronic	Not Applicable	1	1	1	Unknown
NUMA1	NM_006185	11	71427924	G	44	22	A	1	0	intronic	Not Applicable	1	1	1	0.009
NUMA1	NM_006185	11	71436735	T	38	9	C	0	0	intronic	Not Applicable	1	1	1	0.001
NUMA1	NM_006185	11	71447584	T	62	22	C	0	0	intronic	Not Applicable	1	1	1	0.017
NUMA1	NM_006185	11	71447600	C	65	17	T	0	0	intronic	Not Applicable	1	1	1	0.142
NUMA1	NM_006185	11	71448286	A	45	18	G	0	0	intronic	Not Applicable	1	1	1	0.004
NUMA1	NM_006185	11	71457905	C	40	10	T	0	0	intronic	Not Applicable	1	1	1	0.003
NUMA1	NM_006185	11	71458502	C	59	8	G	0	0	intronic	Not Applicable	1	1	1	0.021
NUMA1	NM_006185	11	71466900	A	40	15	G	1	0	intronic	Not Applicable	1	1	1	0.002
PICALM	NM_007166	11	85349350	C	28	1	A	10	5	intronic	Not Applicable	1	1	1	0.999
PICALM	NM_007166	11	85350772	G	25	6	A	23	9	intronic	Not Applicable	1	1	1	Unknown
PICALM	NM_007166	11	85355119	G	27	1	A	30	10	intronic	Not Applicable	1	0	1	0.002
PICALM	NM_007166	11	85362814	G	25	3	A	15	8	intronic	Not Applicable	1	1	1	Unknown
PICALM	NM_007166	11	85362933	C	13	4	T	10	6	intronic	Not Applicable	1	0	0	Unknown
PICALM	NM_007166	11	85374318	A	19	11	G	17	1	intronic	Not Applicable	1	1	1	Unknown
PICALM	NM_007166	11	85380741	T	37	10	C	13	13	intronic	Not Applicable	1	0	1	0.005
PICALM	NM_007166	11	85381882	G	14	17	A	22	5	intronic	Not Applicable	1	0	1	Unknown
PICALM	NM_007166	11	85396464	G	16	3	C	34	4	intronic	Not Applicable	1	1	1	Unknown
PICALM	NM_007166	11	85404466	C	14	8	T	25	3	intronic	Not Applicable	1	1	1	Unknown
PICALM	NM_007166	11	85456810	G	18	12	C	27	20	intronic	Not Applicable	1	1	1	0.002
DDX10	NM_004398	11	108045712	A	47	3	G	0	0	intronic	Not Applicable	1	1	0	0.003
DDX10	NM_004398	11	108062056	C	57	13	T	0	0	intronic	Not Applicable	1	1	1	0.002
DDX10	NM_004398	11	108078974	T	17	3	G	0	0	intronic	Not Applicable	1	1	1	0.182
DDX10	NM_004398	11	108097225	T	46	8	C	0	0	intronic	Not Applicable	1	1	1	0.003
DDX10	NM_004398	11	108101606	A	55	5	C	0	0	intronic	Not Applicable	1	1	1	0.008
DDX10	NM_004398	11	108112577	C	42	18	G	0	0	intronic	Not Applicable	1	1	0	0.019
DDX10	NM_004398	11	108114821	C	50	9	A	0	0	intronic	Not Applicable	1	1	0	Unknown
DDX10	NM_004398	11	108116285	T	14	7	A	0	0	intronic	Not Applicable	1	1	0	Unknown
DDX10	NM_004398	11	108119304	T	45	14	G	0	0	intronic	Not Applicable	1	1	0	Unknown
DDX10	NM_004398	11	108123380	A	9	12	C	8	6	intronic	Not Applicable	0	0	0	0.146
DDX10	NM_004398	11	108133737	C	43	13	T	0	0	intronic	Not Applicable	1	1	1	Unknown
DDX10	NM_004398	11	108134805	G	51	21	A	0	0	intronic	Not Applicable	1	1	1	Unknown
DDX10	NM_004398	11	108162115	G	50	7	A	0	0	intronic	Not Applicable	1	1	1	Unknown
DDX10	NM_004398	11	108162758	A	52	13	G	0	1	intronic	Not Applicable	1	1	0	Unknown
DDX10	NM_004398	11	108166505	C	39	9	A	0	1	intronic	Not Applicable	1	1	0	Unknown
DDX10	NM_004398	11	108166983	A	66	23	G	0	0	intronic	Not Applicable	1	1	1	0.004
DDX10	NM_004398	11	108167194	A	51	22	C	0	0	intronic	Not Applicable	1	1	0	0.001
DDX10	NM_004398	11	108177067	G	42	12	T	0	0	intronic	Not Applicable	1	1	0	0.003
DDX10	NM_004398	11	108177757	A	42	7	G	0	0	intronic	Not Applicable	1	1	1	0.001
DDX10	NM_004398	11	108178096	T	38	26	C	0	0	intronic	Not Applicable	1	1	0	0.001
DDX10	NM_004398	11	108185679	G	55	21	A	0	0	intronic	Not Applicable	1	1	0	0.005
DDX10	NM_004398	11	108192027	G	44	14	A	0	0	intronic	Not Applicable	1	1	0	0.003
DDX10	NM_004398	11	108230109	G	38	20	A	0	0	intronic	Not Applicable	1	1	1	0.013
DDX10	NM_004398	11	108240402	A	9	3	G	0	0	intronic	Not Applicable	1	1	1	Unknown
DDX10	NM_004398	11	108240835	A	42	20	T	0	0	intronic	Not Applicable	1	1	0	Unknown
DDX10	NM_004398	11	108241133	G	53	28	T	2	0	intronic	Not Applicable	1	1	1	0.003
DDX10	NM_004398	11	108242094	G	39	11	T	0	0	intronic	Not Applicable	1	1	1	0.001
DDX10	NM_004398	11	108246157	G	39	7	A	0	0	intronic	Not Applicable	1	1	1	0.236
DDX10	NM_004398	11	108247167	A	54	17	G	0	1	intronic	Not Applicable	1	1	1	Unknown
DDX10	NM_004398	11	108249515	G	47	20	A	0	0	intronic	Not Applicable	1	1	0	0.002
DDX10	NM_004398	11	108256171	C	48	18	T	0	0	intronic	Not Applicable	1	1	1	Unknown
DDX10	NM_004398	11	108259653	G	50	28	A	0	0	intronic	Not Applicable	1	1	0	Unknown
DDX10	NM_004398	11	108260379	A	52	13	G	0	0	intronic	Not Applicable	1	1	1	0.002
DDX10	NM_004398	11	108269873	G	69	12	A	0	0	intronic	Not Applicable	1	1	1	0.005
DDX10	NM_004398	11	108271916	C	42	16	A	0	0	intronic	Not Applicable	1	1	0	0.024
DDX10	NM_004398	11	108272748	A	39	13	G	0	0	intronic	Not Applicable	1	1	0	Unknown
DDX10	NM_004398	11	108276860	C	59	16	T	0	0	intronic	Not Applicable	1	1	1	0.006
DDX10	NM_004398	11	108299712	T	15	11	C	13	1	intronic	Not Applicable	0	0	0	Unknown
DDX10	NM_004398	11	108310082	G	41	17	A	0	0	intronic	Not Applicable	1	1	0	0.01
DDX10	NM_004398	11	108315735	A	55	9	T	0	0	intronic	Not Applicable	1	1	1	0.026
MLL	ENST00000359313	11	117835050	T	15	2	C	23	12	intronic	Not Applicable	0	0	0	0.013
MLL	ENST00000359313	11	117841137	G	17	5	A	0	0	intronic	Not Applicable	1	1	1	Unknown
MLL	ENST00000359313	11	117846422	A	49	12	G	1	0	intronic	Not Applicable	1	1	1	0.142
MLL	ENST00000359313	11	117847131	G	9	15	A	0	0	intronic	Not Applicable	1	1	1	0.002
MLL	ENST00000359313	11	117868079	C	17	8	T	0	0	intronic	Not Applicable	1	1	1	0.001
MLL	ENST00000359313	11	117897767	G	19	2	T	58	8	intronic	Not Applicable	0	0	0	Unknown
MLL	ENST00000359313	11	117897783	G	21	3	A	46	12	intronic	Not Applicable	0	0	0	0.001
ARHGEF12	NM_015313	11	119761511	A	38	6	G	0	0	intronic	Not Applicable	1	1	1	Unknown
ARHGEF12	NM_015313	11	119797780	A	63	4	T	0	0	splice_region	Not Applicable	1	1	1	0.006
ARHGEF12	NM_015313	11	119813892	A	17	11	G	13	7	intronic	Not Applicable	0	0	0	Unknown
ARHGEF12	NM_015313	11	119828424	A	46	10	G	0	0	intronic	Not Applicable	1	0	0	Unknown
ETV6	NM_001987	12	11700607	T	30	5	C	34	7	intronic	Not Applicable	1	0	0	Unknown
ETV6	NM_001987	12	11703597	G	19	18	A	31	7	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11707392	C	44	21	T	1	0	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11707730	T	13	3	A	16	12	intronic	Not Applicable	1	1	1	0.163
ETV6	NM_001987	12	11709142	C	69	15	A	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11710094	G	20	10	A	38	1	intronic	Not Applicable	1	1	1	0.001
ETV6	NM_001987	12	11710764	T	44	17	G	1	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11712984	G	35	13	T	19	5	intronic	Not Applicable	1	1	1	0.027
ETV6	NM_001987	12	11714372	A	58	10	C	0	0	intronic	Not Applicable	1	1	1	0.003
ETV6	NM_001987	12	11715607	T	39	23	G	0	0	intronic	Not Applicable	1	1	1	0.076
ETV6	NM_001987	12	11716419	G	54	14	T	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11718896	A	19	10	G	16	8	intronic	Not Applicable	1	1	1	0.001
ETV6	NM_001987	12	11721307	C	63	10	T	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11721982	T	33	11	G	20	22	intronic	Not Applicable	1	1	1	0.003
ETV6	NM_001987	12	11722475	A	31	8	C	23	8	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11722583	C	88	10	A	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11730973	T	21	9	C	19	13	intronic	Not Applicable	0	0	0	Unknown
ETV6	NM_001987	12	11732416	T	33	6	A	21	6	intronic	Not Applicable	1	0	0	Unknown
ETV6	NM_001987	12	11734171	G	56	21	A	0	0	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11737926	T	23	4	C	9	14	intronic	Not Applicable	0	0	0	0.001
ETV6	NM_001987	12	11740085	G	44	26	A	0	0	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11742426	C	51	8	T	0	1	intronic	Not Applicable	1	1	1	0.001
ETV6	NM_001987	12	11742627	G	44	7	T	1	0	intronic	Not Applicable	1	1	1	1
ETV6	NM_001987	12	11742707	C	46	16	T	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11750815	C	21	12	T	15	12	intronic	Not Applicable	1	1	1	0.006
ETV6	NM_001987	12	11750998	G	14	3	A	36	4	intronic	Not Applicable	1	0	1	Unknown

ETV6	NM_001987	12	11751437	G	22	6	C	10	4	intronic	Not Applicable	1	0	1	0.222
ETV6	NM_001987	12	11754082	G	26	6	A	17	3	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11755371	G	22	5	A	19	6	intronic	Not Applicable	1	0	1	0.404
ETV6	NM_001987	12	11757330	T	19	2	G	21	17	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11758181	A	17	6	T	25	2	intronic	Not Applicable	1	1	0	0.001
ETV6	NM_001987	12	11759804	G	11	6	C	29	11	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11762035	G	13	6	A	11	8	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11763520	T	47	15	C	0	0	intronic	Not Applicable	1	1	1	0.004
ETV6	NM_001987	12	11768515	G	62	12	A	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11768540	A	49	17	C	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11769199	G	40	9	A	19	4	intronic	Not Applicable	1	0	1	0.002
ETV6	NM_001987	12	11769903	T	22	10	C	14	18	intronic	Not Applicable	1	0	1	0.001
ETV6	NM_001987	12	11771243	G	54	33	A	1	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11771848	T	43	12	C	32	6	intronic	Not Applicable	1	0	1	0.001
ETV6	NM_001987	12	11779690	G	13	11	A	21	15	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11783038	A	8	6	G	7	6	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11784395	T	20	8	G	11	13	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11787238	T	24	5	C	32	15	intronic	Not Applicable	0	0	0	0.001
ETV6	NM_001987	12	11789071	T	52	13	C	0	0	intronic	Not Applicable	1	1	1	0.106
ETV6	NM_001987	12	11789812	T	11	3	C	21	5	intronic	Not Applicable	0	0	0	Unknown
ETV6	NM_001987	12	11790466	G	39	25	A	0	0	intronic	Not Applicable	1	1	1	0.004
ETV6	NM_001987	12	11793773	C	31	5	G	33	2	intronic	Not Applicable	1	0	1	0.027
ETV6	NM_001987	12	11796619	C	18	10	T	22	5	intronic	Not Applicable	1	0	1	Unknown
ETV6	NM_001987	12	11796037	T	20	5	A	20	5	intronic	Not Applicable	1	0	1	Unknown
ETV6	NM_001987	12	11796250	G	11	3	A	19	17	intronic	Not Applicable	1	1	1	0.011
ETV6	NM_001987	12	11798086	C	28	6	T	44	13	intronic	Not Applicable	1	0	0	Unknown
ETV6	NM_001987	12	11798807	G	44	12	T	0	0	intronic	Not Applicable	1	0	0	0.001
ETV6	NM_001987	12	11799023	T	23	9	C	15	2	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11799603	A	76	22	G	0	0	intronic	Not Applicable	1	1	1	0.001
ETV6	NM_001987	12	11799795	A	19	8	G	40	8	intronic	Not Applicable	1	1	0	0.001
ETV6	NM_001987	12	11801871	C	17	7	T	14	10	intronic	Not Applicable	1	1	1	0.001
ETV6	NM_001987	12	11804163	T	10	10	C	17	9	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11805196	T	10	1	A	8	4	intronic	Not Applicable	1	1	1	0.017
ETV6	NM_001987	12	11806014	A	19	4	T	31	5	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11810727	G	68	25	A	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11813564	C	17	4	T	18	4	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11820420	A	13	7	G	21	5	intronic	Not Applicable	1	1	1	0.015
ETV6	NM_001987	12	11822156	T	27	12	G	11	8	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11822191	C	28	21	G	15	4	intronic	Not Applicable	1	1	0	0.317
ETV6	NM_001987	12	11827647	C	13	7	T	39	10	intronic	Not Applicable	1	1	0	0.001
ETV6	NM_001987	12	11830739	C	42	10	T	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11833846	C	11	15	A	0	0	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11833792	C	14	24	G	33	10	intronic	Not Applicable	0	0	0	Unknown
ETV6	NM_001987	12	11834044	T	65	16	C	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11834761	G	44	12	A	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11835379	A	38	9	T	0	0	intronic	Not Applicable	1	1	1	0.028
ETV6	NM_001987	12	11835505	G	14	10	A	10	3	intronic	Not Applicable	1	0	0	0.113
ETV6	NM_001987	12	11835743	C	27	1	G	31	13	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11836177	C	11	2	T	10	7	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11839216	G	41	8	T	15	10	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11843691	C	20	7	A	12	4	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11848738	G	25	9	T	13	12	intronic	Not Applicable	1	1	1	0.007
ETV6	NM_001987	12	11853990	C	22	3	A	14	4	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11860837	C	29	8	T	13	12	intronic	Not Applicable	1	0	0	0.001
ETV6	NM_001987	12	11861210	T	35	3	C	24	2	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11863163	C	46	29	T	0	0	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11873430	G	27	7	A	15	6	intronic	Not Applicable	1	1	0	0.08
ETV6	NM_001987	12	11873614	A	18	0	G	25	13	intronic	Not Applicable	1	0	0	0.002
ETV6	NM_001987	12	11873616	A	16	1	G	23	13	intronic	Not Applicable	1	0	1	0.004
ETV6	NM_001987	12	11875599	A	38	8	G	0	1	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11887774	A	12	2	T	9	12	intronic	Not Applicable	1	1	0	0.001
ETV6	NM_001987	12	11892611	A	35	10	T	14	9	intronic	Not Applicable	1	1	0	Unknown
ETV6	NM_001987	12	11897811	A	13	4	G	9	6	intronic	Not Applicable	1	0	0	Unknown
ETV6	NM_001987	12	11900796	G	33	10	A	15	3	intronic	Not Applicable	1	0	0	Unknown
ETV6	NM_001987	12	11901323	A	39	10	G	12	4	intronic	Not Applicable	1	0	0	Unknown
ETV6	NM_001987	12	11901811	T	14	8	G	12	8	intronic	Not Applicable	1	0	0	Unknown
ETV6	NM_001987	12	11902003	T	19	6	C	58	12	intronic	Not Applicable	1	1	0	0.006
ETV6	NM_001987	12	11904839	A	34	9	G	22	6	intronic	Not Applicable	1	1	1	0.295
ETV6	NM_001987	12	11907275	A	45	17	G	1	1	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11916630	C	62	10	A	2	0	intronic	Not Applicable	1	1	0	0.003
ETV6	NM_001987	12	11922732	C	16	5	A	23	9	intronic	Not Applicable	1	1	0	0.004
ETV6	NM_001987	12	11926916	T	39	6	C	11	7	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11931097	C	39	2	G	0	0	intronic	Not Applicable	1	1	0	0.283
ETV6	NM_001987	12	11932212	A	28	6	G	17	16	intronic	Not Applicable	1	1	1	Unknown
ETV6	NM_001987	12	11933726	G	47	23	T	0	0	intronic	Not Applicable	1	1	1	0.014
ETV6	NM_001987	12	11933964	G	42	19	A	0	1	intronic	Not Applicable	1	0	1	0.003
ETV6	NM_001987	12	11936863	G	43	13	A	0	0	3_prime_untranslated_region	Not Applicable	1	0	1	0.002
ETV6	NM_001987	12	11938896	C	42	10	T	0	0	3_prime_untranslated_region	Not Applicable	1	0	1	Unknown
ETV6	NM_001987	12	11938946	A	22	4	C	30	9	3_prime_untranslated_region	Not Applicable	0	0	0	0.001
KRAS	NM_033360	12	25252913	C	30	13	T	12	11	3_prime_untranslated_region	Not Applicable	1	0	0	Unknown
KRAS	NM_033360	12	25253484	G	30	0	A	17	4	3_prime_untranslated_region	Not Applicable	1	1	1	0.773
KRAS	NM_033360	12	25267066	A	33	7	C	16	5	intronic	Not Applicable	1	1	1	Unknown
KRAS	NM_033360	12	25272620	G	20	6	C	18	6	intronic	Not Applicable	1	1	1	Unknown
KRAS	NM_033360	12	25277330	A	48	14	C	3	2	intronic	Not Applicable	1	1	1	0.015
KRAS	NM_033360	12	25281184	C	25	5	G	10	1	intronic	Not Applicable	1	0	0	0.035
KRAS	NM_033360	12	25283560	A	26	9	G	12	4	intronic	Not Applicable	1	0	0	0.002
KRAS	NM_033360	12	25283710	T	12	5	C	26	3	intronic	Not Applicable	1	0	0	Unknown
KRAS	NM_033360	12	25286046	T	21	6	C	14	3	intronic	Not Applicable	1	1	1	Unknown
KRAS	NM_033360	12	25292968	C	15	5	T	9	3	intronic	Not Applicable	1	0	0	0.001
KRAS	NM_033360	12	25293869	C	22	4	T	10	6	intronic	Not Applicable	1	0	0	Unknown
HOXC13	NM_017410	12	52621535	A	19	5	G	0	0	intronic	Not Applicable	1	1	1	0.235
HOXC13	NM_017410	12	52621800	G	38	38	C	0	0	intronic	Not Applicable	1	1	1	0.019
HOXC13	NM_017410	12	52623350	G	50	15	A	0	0	intronic	Not Applicable	1	1	1	Unknown
HOXC13	NM_017410	12	52623344	A	47	14	G	0	0	3_prime_untranslated_region	Not Applicable	1	1	0	Unknown
PTPN11	NM_002834	12	111443479	C	21	3	G	39	6	intronic	Not Applicable	0	0	0	0.009
PTPN11	NM_002834	12	111418990	T	16	9	C	25	11	intronic	Not Applicable	0	0	0	Unknown
PTPN11	NM_002834	12	111425954	A	21	10	G	18	13	intronic	Not Applicable	1	0	0	Unknown
PTPN11	NM_002834	12	111427580	G	14	7	A	16	2	intronic	Not Applicable	1	0	0	0.061
CDX2	ENST00000381020	13	27435317	A	44	9	G	0	0	missense	p.P293S	1	0	1	0.292
CDX2	ENST00000381020	13	27438727	A	21	21	C	1	0	intronic	Not Applicable	1	0	1	Unknown
CDX2	ENST00000381020	13	27439583	G	51	9	T	0	0	intronic	Not Applicable	1	1	1	Unknown
FLT3	ENST00000380982	13	27485135	G	16	4	A	23	7	intronic	Not Applicable	1	1	0	0.034
FLT3	ENST00000380982	13	27485137	A	22	6	C	21	4	intronic	Not Applicable	1	1	1	0.037
FLT3	ENST00000380982	13	27488318	G	45	7	A	0	0	intronic	Not Applicable	1	1	0	0.003
FLT3	ENST00000380982	13	27491541	G	50	17	A	0	0	intronic	Not Applicable	1	1	1	0.006
FLT3	ENST00000380982	13	27499621	T	50	5	C	0	0	intronic	Not Applicable	1	1	0	Unknown
FLT3	ENST00000380982	13	27502041	G	41	13	A	0	0	intronic	Not Applicable	1	1	1	0.002
FLT3	ENST00000380982	13	27502376	A	49	12	G	0	0	intronic	Not Applicable	1	1	0	0.006
FLT3	ENST00000380982	13	27502429	G	51	16	A	0	0	intronic	Not Applicable	1	0	0	Unknown
FLT3	ENST00000380982	13	27505989	G	48	20	T	0	0	intronic	Not Applicable	1	1	1	0.001
FLT3	ENST00000380982	13	27507825	G	44	11	A	2	0	intronic	Not Applicable	1	1	0	Unknown
FLT3	ENST00000380982	13	27508355	A	16	6	T	0	0	intronic	Not Applicable	1	1	1	0.001
FLT3	ENST00000380982	13	27509710	G	66	22	A	1	0	intronic	Not Applicable	1	1	1	0.003
FLT3	ENST00000380982	13	27510351	G	43	10	A	0	0	intronic	Not Applicable	1	0	1	Unknown
FLT3	ENST00000380982	13	27511331	T	44	14	G	1	1	intronic	Not Applicable	1	1	0	Unknown
FLT3	ENST00000380982	13	27513473	C	45	9	A	1	0	intronic	Not Applicable	1	1	0	0.043
FLT3	ENST00000380982	13	27521180	T	44	9	A	0	0	intronic	Not Applicable	1	1	1	0.003
FLT3	ENST00000380982	13	27521699	T	11	4	G	0	0	intronic	Not Applicable	1	1	0	0.052
FLT3	ENST00000380982	13	27525672	T	44	11	C	0	0	intronic	Not Applicable	1	1	0	0.001
FLT3	ENST00000380982	13	27526825	C	38	10	T	0	0	intronic	Not Applicable	1	1	1	0.006
FLT3	ENST00000380982	13	27529968	C	60	9	A	0	0	intronic	Not Applicable	1	1	1	Unknown
FLT3	ENST00000380982	13	27530991	C	58	33	G	0	0	intronic	Not Applicable	1	1	0	Unknown
FLT3	ENST00000380982	13	27532820	A	46	19	G	0	1	intronic	Not Applicable	1	1	1	Unknown
FLT3	ENST00000380982	13	27532827	T	49	17	C	0	0	intronic	Not Applicable	1	1	0	Unknown
FLT3	ENST00000380982	13	27534084	A	42	10	G	0	0	silent	p.D95	1	1	0	Unknown
FLT3	ENST00000380982	13	27534446	A	61	10	G	0	0	intronic	Not Applicable	1	1	1	0.003
FLT3	ENST00000380982	13	27543005	T	51	15	C	0	0	intronic	Not Applicable	1	1	1	Unknown
FLT3	ENST00000380982	13	27547209	T	11	12	A	0	0	intronic	Not Applicable	1	1	1	0.001
FLT3	ENST00000380982	13	27559898	C	51	11	T	0	0	intronic	Not Applicable	1	1	0	Unknown
FLT3	ENST00000380982	13	27560379	C	46	9	T	0	0	intronic	Not Applicable	1	1	1	Unknown
FLT3	ENST00000380982	13	27561756	A	52	15	G	0	0	intronic	Not Applicable	1	1	1	0.01
BRCA2	NM_000059	13	31787968	A	15	7	G	8	10	intronic	Not Applicable	1	1	1	Unknown
BRCA2	NM_000059	13	31788227	T	19	10	G	13	3	intronic	Not Applicable	1	1	1	0.012
BRCA2	NM_000059	13	31791791	G	12	4	A	13	3	intronic	Not Applicable	1	1	1	Unknown
BRCA2	NM_000059	13	31802497	A	22	3	G	29	14	intronic	Not Applicable	0	0	0	0.572
BRCA2	NM_000059	13	31806888	G	9	4	A	12	9	silent	p.K1132	1	1	1	0.818
BRCA2	NM_000059	13	31826202	G	26	5	A	24	3	intronic	Not Applicable	1	0	1	0.887
BRCA2	NM_000059	13	31827232	G	14	7	A	14	8	silent	p.S2414	1	1	0	0.009
BRCA2	NM_000059	13	31842056	T	18	12	G	18	2	intronic	Not Applicable	1	1	0	0.005
BRCA2	NM_000059	13	31844011	G	53	10	A	0	0	intronic	Not Applicable	1	1	1	0.003
BRCA2	NM_000059	13	31847382	C	22	10	T	0	0	intronic	Not Applicable	1	1	0	Unknown
BRCA2	NM_000059	13	31853397	T	41	10	C	2	0	intronic	Not Applicable	1	1	0	0.018
BRCA2	NM_000059	13	31854109	A	30	5	G	13	13	intronic	Not Applicable	1	0	1	0.001
BRCA2	NM_000059	13	31855819	A	11	8	G	9	19	intronic	Not Applicable	1	1	0	0.089
BRCA2	NM_000059	13	31856466	G	28	9	T	11	6	intronic	Not Applicable	1	1	0	0.65
BRCA2	NM_000059	13	31857236	T	28	8	C	24	7	intronic	Not Applicable	1	1	0	0.993
BRCA2	NM_000059	13	31857839	C	55	18	A	0	0	intronic	Not Applicable	1	1	0	0.12
BRCA2	NM_000059	13	31863651	C	41	21	T	0	0	intronic	Not Applicable	1	1	1	Unknown
BRCA2	NM_000059	13	31868031	C	8	4	T	10	9	intronic	Not Applicable	1	0	1	0.019
BRCA2	NM_000059	13	31871439	G	8	8	A	13	3	3_prime_untranslated_region	Not Applicable	1	1	0	0.001
RB1	NM_000321	13	47790993	G	16	8	T	19	4	intronic	Not Applicable	1	1	1	1
RB1	NM_000321	13	47804244	A	10	7	T	17	4	intronic	Not Applicable	1	1	1	Unknown
RB1	NM_000321	13	47807570	G	16	1	A	11	2	intronic	Not Applicable	1	1	0	0.001
RB1	NM_000321	13	47816803	G	23	6	A	11	7	intronic	Not Applicable	1	1	1	Unknown
RB1	NM_000321	13	47829537	T	29	2	G	13	11	intronic	Not Applicable	1	1	1	Unknown
RB1	NM_000321	13	47830002	A	36	9	G	32	7	intronic	Not Applicable	1	0	0	Unknown
RB1	NM_000321	13	47832576	T	28	6	A	25	11	intronic	Not Applicable	1	0	0	0.006
RB1	NM_000321	13	47842731	A	12	2	G	19	6	intronic	Not Applicable	1	1	1	Unknown
RB1	NM_000321	13	47846570	G	41	7	A	13	13	intronic	Not Applicable	1	0	0	Unknown
RB1	NM_000321	13	47848925	T	25	3	G	12	0	intronic	Not Applicable	1	0	0	0.029
RB1	NM_000321	13	47864921	G	39	2	A	28	7	intronic	Not Applicable	1	0	0	Unknown
RB1	NM_000321	13	47872743	A	15	3	G	18	1	intronic	Not Applicable	1	1	0	0.046
RB1	NM_000321	13	47908503	G	11	6	A	18	5	intronic	Not Applicable	1	1	1	Unknown
RB1	NM_000321	13	47917736	A	16	9	G	17	3	intronic	Not Applicable	1	1	1	0.156
RB1	NM_000321	13	47919046	A	26	6	G	17	8	intronic	Not Applicable	1	1	1	0.011
RB1	NM_000321	13	47919887	C	17	6	G	10	5	intronic	Not Applicable	1	1	1	Unknown
RB1	NM_000321	13	47929538	C	25	22	G	14	12	intronic	Not Applicable	1	1	1	Unknown
RB1	NM_000321	13	47949849	A	19	6	G	28	15	intronic	Not Applicable	1	1	1	0.004
FANCM	ENST00000267430	14	44721431	A	50	7	G	0	0	intronic	Not Applicable	1	1	1	Unknown
FANCM	ENST00000267430	14	44722389	G	24	11	A	40	5	intronic	Not Applicable	0	0	0	Unknown
NIN	ENST00000245441	14	50271461	T	41	8	C	18	7	intronic	Not Applicable	1	0	1	0.002
NIN	ENST00000245441	14	50277893	G	13	12	T	32	4	intronic	Not Applicable	1	0	1	0.001
NIN	ENST00000245441	14	50280155	A	16	2	G	0	0	intronic	Not Applicable	1	1	1	0.001
NIN	ENST00000245441	14	50286833	C	29	12	G	32	7	intronic	Not Applicable	1	0	1	0.001
NIN	ENST00000245441	14	50287324	G	21	10	T	33	9	intronic	Not Applicable	1	0	0	Unknown
NIN	ENST00000245441	14	50287357	T	46	12	C	14	3	intronic	Not Applicable	1	0	1	0.001
NIN	ENST00000245441	14	50287467	G	37	14	A	37	4	intronic	Not Applicable	1	0	1	Unknown
NIN	ENST00000245441	14	50287492	T	42	9	C	28	1	intronic	Not Applicable	1	1	0	0.221
NIN	ENST00000245441	14	50287643	T	43	4	C	16	11	intronic	Not Applicable	1	1	1	Unknown
NIN	ENST00000245441	14	50289925	A	19	4	T	21	8	intronic	Not Applicable	1	0	1	0.013
NIN	ENST00000245441	14	50290856	T	12	18	G	21	11	intronic	Not Applicable	1	0	1	0.001
NIN	ENST00000245441	14	50293539	T	48	6	C	0	0	missense	p.G1320E	1	1	1	0.045
NIN	ENST00000245441	14	50294408	A	17	12	T	21	7	silent	p.S1030	1	1	1	Unknown
NIN	ENST00000245441	14	50298875	A	59	22	G	0	0	intronic	Not Applicable	1	1	1	0.003
NIN	ENST00000245441	14	50299342	C	64	14	A	1	0	intronic	Not Applicable	1	1	1	0.304
NIN	ENST00000245441	14	50302001	C	29	7	G	32	2	intronic	Not Applicable	1	1	1	0.01
NIN	ENST00000245441	14	50302085	T	24	5	C	0	0	intronic	Not Applicable	1	1	1	0.009
NIN	ENST00000245441	14	50305271	C	15	17	G	14	6	intronic	Not Applicable	1	1	1	0.011
NIN	ENST00000245441	14	50305485	A	86	20	G	0	0	intronic	Not Applicable	1	1	1	Unknown
NIN	ENST00000245441	14	50307451	G	23	7	A	18	8	silent	p.V376	1	1	0	0.997
NIN	ENST00000245441	14	50308817	G	43	20	C	0	0	silent	p.L311	1	1	1	0.927
NIN	ENST00000245441	14	50314526	A	38	5	G	23	17	intronic	Not Applicable	1	1	1	Unknown
NIN	ENST00000245441	14	50314870	C	24	5	C	33	11	intronic	Not Applicable	1	1	0	0.004
NIN	ENST00000245441	14	50315416	C	13	9	T	9	13	intronic	Not Applicable	1	1	0	0.001
NIN	ENST00000245441	14	50316321	T	18	5	A	10	7	intronic	Not Applicable	0	0	0	0.004
NIN	ENST00000245441	14	50318986	A	45	11	C	0	1	intronic	Not Applicable	1	1	1	Unknown
NIN	ENST00000245441	14	50320527	T	53	15	G	0	0	intronic	Not Applicable	1	1	1	Unknown
NIN	ENST00000245441	14	50320571	T	50	17	A	1	0	intronic	Not Applicable	1	1	1	Unknown
NIN	ENST00000245441	14	50320672	T	14	5	C	35	30	intronic	Not Applicable	1	0	0	Unknown
NIN	ENST00000245441	14	50331842	C	48	12	T	18	19	intronic	Not Applicable	1	1	0	0.001
NIN	ENST00000245441	14	50331930	C	14	17	T	12	5	intronic	Not Applicable	1	1	0	0.002
NIN	ENST00000245441	14	50333163	A	13	9	T	17	2	intronic	Not Applicable	1	1	1	Unknown
NIN	ENST00000245441	14	50349264	T	40	9	G	0	0	intronic	Not Applicable	1	0	1	Unknown
NIN	ENST00000245441	14	50352898	T	82	24	C	0	0	intronic	Not Applicable	1	1	1	Unknown
NIN	ENST00000245441	14	50354169	T	52	1	G	44	5	intronic	Not Applicable	0	0	0	0.003

NIN	ENST00000245441	14	50355719	G	57	12	A	0	0	intronic	Not Applicable	1	0	1	0.001
NIN	ENST00000245441	14	50358124	C	10	9	G	10	5	intronic	Not Applicable	0	0	0	0.043
NIN	ENST00000245441	14	50363456	T	15	3	C	15	12	intronic	Not Applicable	1	0	0	0.005
TRIP11	ENST00000267622	14	91516316	G	11	4	T	16	8	intronic	Not Applicable	1	1	0	0.005
TRIP11	ENST00000267622	14	91523310	T	14	11	A	34	7	intronic	Not Applicable	1	1	0	Unknown
TRIP11	ENST00000267622	14	91525576	G	31	5	T	32	9	intronic	Not Applicable	0	0	0	0.001
TRIP11	ENST00000267622	14	91530945	T	11	10	C	9	7	intronic	Not Applicable	1	1	0	Unknown
TRIP11	ENST00000267622	14	91532250	C	16	2	T	23	3	intronic	Not Applicable	1	1	0	Unknown
TRIP11	ENST00000267622	14	91538482	A	28	5	C	22	2	intronic	Not Applicable	1	1	0	Unknown
TRIP11	ENST00000267622	14	91539934	G	10	5	C	7	2	intronic	Not Applicable	1	0	0	0.004
TRIP11	ENST00000267622	14	91546921	G	22	8	A	62	11	intronic	Not Applicable	1	1	0	0.652
TRIP11	ENST00000267622	14	91562404	C	30	7	T	20	2	intronic	Not Applicable	1	0	0	0.01
CASC5	NM_170589	15	38680865	A	43	8	C	0	0	intronic	Not Applicable	1	1	1	Unknown
CASC5	NM_170589	15	38692742	T	46	16	C	0	0	intronic	Not Applicable	1	1	1	0.001
CASC5	NM_170589	15	38695898	T	50	22	C	0	0	intronic	Not Applicable	1	1	1	0.002
CASC5	NM_170589	15	38696284	C	45	14	A	0	0	intronic	Not Applicable	1	1	0	Unknown
CASC5	NM_170589	15	38698818	C	68	25	T	0	0	intronic	Not Applicable	1	0	1	Unknown
CASC5	NM_170589	15	38701132	T	56	13	G	1	0	missense	p.A495S	1	1	1	0.038
CASC5	NM_170589	15	38701469	C	59	14	T	0	0	missense	p.M598T	1	1	1	1
CASC5	NM_170589	15	38702337	G	11	10	T	0	0	silent	p.T887	1	1	1	0.636
CASC5	NM_170589	15	38703186	C	40	9	T	0	0	silent	p.N1170	1	1	1	0.019
CASC5	NM_170589	15	38710207	C	44	14	G	1	0	intronic	Not Applicable	1	1	1	Unknown
CASC5	NM_170589	15	38717106	C	54	50	T	0	0	intronic	Not Applicable	1	1	1	0.609
PML	NM_033238	15	72064080	T	17	7	C	0	0	intronic	Not Applicable	1	0	1	0.054
PML	NM_033238	15	72066623	G	44	18	A	0	0	intronic	Not Applicable	1	0	1	0.002
PML	NM_033238	15	72068638	A	83	16	T	0	0	intronic	Not Applicable	1	0	1	Unknown
PML	NM_033238	15	72069402	A	44	16	C	0	1	intronic	Not Applicable	1	0	1	0.001
PML	NM_033238	15	72069336	G	60	12	A	0	0	intronic	Not Applicable	1	0	1	0.635
PML	NM_033238	15	72069534	G	43	12	A	0	0	intronic	Not Applicable	1	0	1	0.001
PML	NM_033238	15	72104415	A	49	24	G	0	0	intronic	Not Applicable	1	0	0	0.001
PML	NM_033238	15	72104924	G	47	18	C	0	1	intronic	Not Applicable	1	0	1	0.001
PML	NM_033238	15	72106629	G	44	9	C	0	0	intronic	Not Applicable	1	1	1	0.003
PML	NM_033238	15	72107202	G	44	30	A	0	0	intronic	Not Applicable	1	0	1	0.085
PML	NM_033238	15	72107736	A	38	26	G	0	0	intronic	Not Applicable	1	0	1	0.001
PML	NM_033238	15	72116074	C	38	35	T	0	0	intronic	Not Applicable	1	0	1	Unknown
PML	NM_033238	15	72118264	T	19	6	C	20	8	intronic	Not Applicable	1	0	1	0.006
PML	NM_033238	15	72118438	C	13	10	T	16	7	intronic	Not Applicable	1	0	1	0.008
PML	NM_033238	15	72121091	C	41	32	T	0	0	intronic	Not Applicable	1	1	1	Unknown
PML	NM_033238	15	72123447	T	59	16	C	0	0	intronic	Not Applicable	1	1	1	0.002
PML	NM_033238	15	72125515	T	46	20	C	0	0	3_prime_untranslated_region	Not Applicable	1	1	0	Unknown
FANCI	NM_018193	15	87612235	G	51	19	A	0	0	intronic	Not Applicable	1	0	0	0.002
FANCI	NM_018193	15	87632585	G	63	7	C	0	0	intronic	Not Applicable	1	1	1	0.024
BLM	NM_000057	15	89617961	T	15	5	C	38	8	intronic	Not Applicable	0	0	0	Unknown
BLM	NM_000057	15	89696964	C	17	4	T	24	13	intronic	Not Applicable	1	0	0	0.018
BLM	NM_000057	15	89704716	T	26	3	C	18	5	intronic	Not Applicable	0	0	0	Unknown
BLM	NM_000057	15	89710328	A	33	4	G	15	10	intronic	Not Applicable	1	0	0	0.02
BLM	NM_000057	15	89711847	T	15	12	C	24	8	intronic	Not Applicable	0	0	0	0.027
BLM	NM_000057	15	89712439	C	35	7	A	11	4	intronic	Not Applicable	1	1	0	0.145
BLM	NM_000057	15	89722785	T	19	5	C	18	5	intronic	Not Applicable	0	0	0	0.197
BLM	NM_000057	15	89724274	T	12	2	C	27	2	intronic	Not Applicable	1	1	0	Unknown
BLM	NM_000057	15	89730223	T	25	1	C	31	9	intronic	Not Applicable	0	0	0	0.007
BLM	NM_000057	15	89730570	T	35	8	G	20	3	intronic	Not Applicable	0	0	0	Unknown
BLM	NM_000057	15	89736810	G	52	6	A	21	10	intronic	Not Applicable	1	0	0	0.001
BLM	NM_000057	15	89737817	C	26	5	G	15	6	intronic	Not Applicable	1	0	0	0.002
BLM	NM_000057	15	89737993	T	11	9	C	14	9	intronic	Not Applicable	1	0	0	0.001
BLM	NM_000057	15	89739760	G	17	4	A	11	3	intronic	Not Applicable	1	1	0	Unknown
BLM	NM_000057	15	89740016	G	37	9	A	21	4	intronic	Not Applicable	1	1	0	0.001
BLM	NM_000057	15	89740161	A	20	5	G	11	7	intronic	Not Applicable	1	0	0	0.599
BLM	NM_000057	15	89741335	A	8	19	G	17	8	intronic	Not Applicable	0	0	0	0.002
BLM	NM_000057	15	89744640	T	24	5	G	30	14	intronic	Not Applicable	0	0	0	0.004
BLM	NM_000057	15	89744946	T	16	5	C	27	4	intronic	Not Applicable	0	0	0	Unknown
BLM	NM_000057	15	89745075	A	13	2	T	9	3	intronic	Not Applicable	1	0	0	0.013
BLM	NM_000057	15	89745870	A	10	3	G	9	6	intronic	Not Applicable	1	0	0	0.004
BLM	NM_000057	15	89747089	A	14	10	G	17	5	intronic	Not Applicable	1	0	0	Unknown
BLM	NM_000057	15	89753931	A	16	10	G	22	6	intronic	Not Applicable	1	0	0	0.014
BLM	NM_000057	15	89754773	C	11	8	G	24	15	intronic	Not Applicable	1	1	0	0.026
BLM	NM_000057	15	89755509	T	18	7	C	19	13	silent	p.L1315	1	1	0	Unknown
BLM	NM_000057	15	89756736	C	18	2	T	29	7	intronic	Not Applicable	1	1	0	Unknown
BLM	NM_000057	15	89757384	C	58	5	T	19	6	intronic	Not Applicable	1	0	0	0.003
BLM	NM_000057	15	89758033	C	21	17	G	22	12	intronic	Not Applicable	1	1	0	Unknown
BLM	NM_000057	15	89758937	A	17	16	G	43	8	intronic	Not Applicable	1	0	0	Unknown
CREBBP	ENST00000382070	16	3736148	C	76	27	T	1	0	intronic	Not Applicable	1	1	1	Unknown
CREBBP	ENST00000382070	16	3741965	C	22	10	G	48	6	intronic	Not Applicable	0	0	0	0.999
CREBBP	ENST00000382070	16	3797036	G	44	6	T	18	12	intronic	Not Applicable	1	0	0	Unknown
CREBBP	ENST00000382070	16	3830803	T	31	8	C	21	4	intronic	Not Applicable	0	0	0	Unknown
CREBBP	ENST00000382070	16	3836235	C	50	7	T	0	0	intronic	Not Applicable	1	1	1	0.001
CREBBP	ENST00000382070	16	3836366	A	41	7	G	0	0	intronic	Not Applicable	1	1	1	Unknown
CREBBP	ENST00000382070	16	3865181	G	43	13	A	1	0	intronic	Not Applicable	1	1	1	Unknown
CREBBP	ENST00000382070	16	3867084	C	84	24	A	0	0	intronic	Not Applicable	1	1	1	Unknown
MYH11	NM_001040114	16	15709835	T	61	12	C	0	0	intronic	Not Applicable	1	0	0	Unknown
MYH11	NM_001040114	16	15718524	T	42	11	C	1	0	silent	p.L1833	1	0	0	1
MYH11	NM_001040114	16	15718563	T	39	18	C	0	0	silent	p.K1820	1	0	0	1
MYH11	NM_001040114	16	15721134	A	70	29	G	1	0	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15723647	C	53	6	T	0	0	intronic	Not Applicable	1	1	1	Unknown
MYH11	NM_001040114	16	15725642	C	68	9	A	0	0	silent	p.A1421	1	0	0	0.977
MYH11	NM_001040114	16	15739879	C	20	16	T	16	10	intronic	Not Applicable	0	0	0	0.004
MYH11	NM_001040114	16	15743975	C	18	11	G	20	15	intronic	Not Applicable	1	0	0	0.137
MYH11	NM_001040114	16	15766780	G	39	17	C	0	0	intronic	Not Applicable	1	1	0	0.002
MYH11	NM_001040114	16	15771785	A	13	9	G	18	13	intronic	Not Applicable	1	0	0	0.002
MYH11	NM_001040114	16	15774227	G	54	13	A	1	1	intronic	Not Applicable	1	1	0	Unknown
MYH11	NM_001040114	16	15775065	C	60	11	T	1	0	intronic	Not Applicable	1	0	0	0.001
MYH11	NM_001040114	16	15776967	T	45	12	C	1	0	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15777302	C	50	17	T	0	0	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15777984	A	12	14	G	10	8	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15778378	T	19	9	C	50	14	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15778486	T	16	10	C	10	4	intronic	Not Applicable	0	0	0	0.001
MYH11	NM_001040114	16	15779574	A	12	14	G	14	6	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15779820	A	25	6	G	36	2	intronic	Not Applicable	1	0	1	0.003
MYH11	NM_001040114	16	15780110	G	8	9	A	16	9	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15780249	T	33	11	G	17	13	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15780308	A	16	8	G	35	20	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15785579	A	13	19	G	17	25	intronic	Not Applicable	0	0	0	0.01
MYH11	NM_001040114	16	15785985	G	13	14	T	26	7	intronic	Not Applicable	0	0	0	0.841
MYH11	NM_001040114	16	15786874	T	16	10	C	16	7	intronic	Not Applicable	1	0	0	Unknown
MYH11	NM_001040114	16	15795631	G	18	14	A	17	11	intronic	Not Applicable	1	0	0	0.031
MYH11	NM_001040114	16	15795766	C	50	6	T	0	0	intronic	Not Applicable	1	1	0	Unknown
MYH11	NM_001040114	16	15795837	C	44	24	T	0	0	intronic	Not Applicable	1	1	0	Unknown
MYH11	NM_001040114	16	15796040	G	39	8	C	17	5	intronic	Not Applicable	0	0	0	0.006
MYH11	NM_001040114	16	15801830	G	41	13	A	0	0	intronic	Not Applicable	1	1	0	Unknown
MYH11	NM_001040114	16	15801869	C	11	12	G	14	9	intronic	Not Applicable	1	0	0	Unknown
MYH11	NM_001040114	16	15803611	A	14	3	G	28	8	intronic	Not Applicable	0	1	0	0.001
MYH11	NM_001040114	16	15804545	C	37	11	T	0	0	intronic	Not Applicable	1	1	0	Unknown
MYH11	NM_001040114	16	15805271	T	11	5	C	15	8	intronic	Not Applicable	0	0	0	0.115
MYH11	NM_001040114	16	15805508	C	49	4	T	0	0	intronic	Not Applicable	1	1	0	0.001
MYH11	NM_001040114	16	15806030	G	20	10	C	14	3	intronic	Not Applicable	0	0	0	0.004
MYH11	NM_001040114	16	15806500	G	16	16	A	14	10	intronic	Not Applicable	1	0	0	0.041
MYH11	NM_001040114	16	15806939	G	39	13	A	20	6	intronic	Not Applicable	0	0	1	Unknown
MYH11	NM_001040114	16	15809279	G	20	8	T	17	2	intronic	Not Applicable	1	1	1	0.568
MYH11	NM_001040114	16	15812837	C	14	1	T	10	11	intronic	Not Applicable	1	1	0	0.002
MYH11	NM_001040114	16	15823449	A	38	11	C	0	0	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15823490	C	33	9	T	15	18	intronic	Not Applicable	1	0	0	0.001
MYH11	NM_001040114	16	15823535	T	21	6	G	18	6	intronic	Not Applicable	1	1	0	0.18
MYH11	NM_001040114	16	15824362	C	11	2	A	19	2	intronic	Not Applicable	1	1	0	Unknown
MYH11	NM_001040114	16	15825461	G	18	8	A	15	17	intronic	Not Applicable	1	1	0	0.001
MYH11	NM_001040114	16	15833606	G	39	10	A	43	9	intronic	Not Applicable	1	1	1	Unknown
MYH11	NM_001040114	16	15834782	G	14	5	T	28	12	intronic	Not Applicable	1	1	0	0.015
MYH11	NM_001040114	16	15834854	A	28	5	G	18	19	intronic	Not Applicable	1	1	1	0.181
MYH11	NM_001040114	16	15835525	G	15	11	A	17	4	intronic	Not Applicable	1	1	1	0.001
MYH11	NM_001040114	16	15836355	C	17	2	T	15	7	intronic	Not Applicable	1	1	1	Unknown
MYH11	NM_001040114	16	15837548	G	10	8	A	14	15	intronic	Not Applicable	1	1	1	Unknown
MYH11	NM_001040114	16	15839875	T	39	11	C	49	7	intronic	Not Applicable	0	0	1	Unknown
MYH11	NM_001040114	16	15847806	G	11	6	C	17	10	intronic	Not Applicable	1	1	1	0.002
MYH11	NM_001040114	16	15854279	T	12	4	C	15	13	intronic	Not Applicable	1	0	1	0.014
MYH11	NM_001040114	16	15855786	G	20	11	C	12	9	intronic	Not Applicable	0	0	1	Unknown
MYH11	NM_001040114	16	15857148	A	7	6	G	11	6	intronic	Not Applicable	1	0	0	0.085
MYH11	NM_001040114	16	15857276	G	29	10	A	22	4	intronic	Not Applicable	1	0	1	Unknown
MYH11	NM_001040114	16	15857815	G	15	9	T	23	15	intronic	Not Applicable	0	0	0	Unknown
PALB2	NM_024675	16	23523364	T	39	3	A	1	0	intronic	Not Applicable	1	1	1	0.018
PALB2	NM_024675	16	23527572	T	23	5	C	18	12	intronic	Not Applicable	1	1	0	0.005
PALB2	NM_024675	16	23552087	G	34	5	A	29	6	intronic	Not Applicable	1	1	0	Unknown
PALB2	NM_024675	16	23552239	G	22	14	A	22	9	intronic	Not Applicable	1	1	1	0.006
FUS	NM_004960	16	31101443	A	15	4	C	10	4	silent	p.G49	1	1	0	0.999
CBFB	NM_022845	16	67659803	C	267	167	T	8	6	intronic	Not Applicable	0	0	0	0.011
CBFB	NM_022845	16	67667997	A	22	2	A	39	10	intronic	Not Applicable	0	0	0	Unknown
CBFB	NM_022845	16	67669454	C	24	6	T	40	11	intronic	Not Applicable	1	0	1	0.459
CBFB	NM_022845	16	67677691	G	44	21	T	1	0	intronic	Not Applicable	1	1	0	Unknown
CBFB	NM_022845	16	67680592	T	9	8	C	22	7	intronic	Not Applicable	0	0	0	0.002
CBFA2T3	NM_005187	16	87478831	A	16	8	T	15	5	intronic	Not Applicable	0	1	0	Unknown
CBFA2T3	NM_005187	16	87484438	T	20	21	C	10	3	intronic	Not Applicable	1	1	1	Unknown
CBFA2T3	NM_005187	16	87496041	C	17	21	T	27	26	intronic	Not Applicable	1	1	1	0.006
CBFA2T3	NM_005187	16	87502361	G	15	4	A	19	3	intronic	Not Applicable	1	1	1	0.02
CBFA2T3	NM_005187	16	87502833	G	24	18	A	25	4	intronic	Not Applicable	1	1	1	0.002
CBFA2T3	NM_005187	16	87503411	C	23	4	G	25	5	intronic	Not Applicable	1	1	1	0.008
CBFA2T3	NM_005187	16	87503455	G	26	10	A	16	3	intronic	Not Applicable	1	0	0	0.007
CBFA2T3	NM_005187	16	87503908	T	16	5	G	17	2	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87504164	G	23	16	C	27	12	intronic	Not Applicable	1	1	1	0.002
CBFA2T3	NM_005187	16	87504469	C	36	10	G	17	30	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87510290	T	30	9	G	52	13	intronic	Not Applicable	1	1	1	Unknown
CBFA2T3	NM_005187	16	87516490	T	24	9	T	26	7	intronic	Not Applicable	1	1	0	0.001
CBFA2T3	NM_005187	16	87517363	G	12	6	A	11	3	intronic	Not Applicable	1	0	1	Unknown
CBFA2T3	NM_005187	16	87519061	G	19	8	A	20	5	intronic	Not Applicable	1	1	1	0.001
CBFA2T3	NM_005187	16	87519013	T	25	6	C	18	11	intronic	Not Applicable	1	0	0	Unknown
CBFA2T3	NM_005187	16	87519896	C	22	4	T	32	9	intronic	Not Applicable	1	1	1	0.095
CBFA2T3	NM_005187	16	87522157	T	14	5	C	13	5	intronic	Not Applicable	1	0	1	Unknown
CBFA2T3	NM_005187	16	87522717	C	11	6	T	21	15	intronic	Not Applicable	1	1	1	Unknown
CBFA2T3	NM_005187	16	87523149	A	10	3	G	12	7	intronic	Not Applicable	0	0	0	0.014
CBFA2T3	NM_005187	16	87524342	G	13	10	A	28	11	intronic	Not Applicable	1	1	1	0.002
CBFA2T3	NM_005187	16	87525152	G	20	13	A	15	9	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87527724	T	18	25	C	15	12	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87527804	T	30	12	G	11	8	intronic	Not Applicable	1	1	1	0.006
CBFA2T3	NM_005187	16	87528548	G	8	4	A	13	18	intronic	Not Applicable	1	1	0	0.002
CBFA2T3	NM_005187	16	87528967	C	18	13	A	14	8	intronic	Not Applicable	1	1	1	0.007
CBFA2T3	NM_005187	16	87531853	G	33	5	C	20	2	intronic	Not Applicable	1	1	1	0.001
CBFA2T3	NM_005187	16	87531861	T	36	3	C	54	8	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87531993	T	20	2	C	22	11	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87532164	C	14	4	T	14	10	intronic	Not Applicable	1	1	1	Unknown
CBFA2T3	NM_005187	16	87537953	G	12	8	A	20	3	intronic	Not Applicable	0	0	0	0.016
CBFA2T3	NM_005187	16	87546328	G	13	5	A	23	7	intronic	Not Applicable	1	1	0	0.002
CBFA2T3	NM_005187	16	87548152	T	23	6	C	10	9	intronic	Not Applicable	1	0	0	0.144
CBFA2T3	NM_005187	16	87551951	A	8	13	G	9	1	intronic	Not Applicable	1	0	0	Unknown
CBFA2T3	NM_005187	16	87553097	G	16	16	T	18	13	intronic	Not Applicable	1	1	1	0.001
CBFA2T3	NM_005187	16	87554277	T	26	3	G	24	16	intronic	Not Applicable	0	0	0	0.017
CBFA2T3	NM_005187	16	87554929	A	39	5	G	27	8	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87556482	A	19	12	G	13	12	intronic	Not Applicable	1	1	1	Unknown
CBFA2T3	NM_005187	16	87556768	G	18	11	A	22	12	intronic	Not Applicable	1	1	1	0.002
CBFA2T3	NM_005187	16	87558918	G	27	6	C	19	11	intronic	Not Applicable	0	0	0	0.012
CBFA2T3	NM_005187	16	87559461	T	19	14	C	54	12	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87560031	C	23	11	T	13	2	intronic	Not Applicable	1	0	1	Unknown
CBFA2T3	NM_005187	16	87560132	C	14	18	T	18	11	intronic	Not Applicable	1	1	0	0.108
CBFA2T3	NM_005187	16	87560948	C	38	25	G	23	13	intronic	Not Applicable	0	1	0	0.001
CBFA2T3	NM_005187	16	87560964	G	28	8	T	56	34	intronic	Not Applicable	1	1	0	Unknown
CBFA2T3	NM_005187	16	87569112	G	22	12	A	73	39	intronic	Not Applicable	1	0	0	0.202
CBFA2T3	NM_005187	16	87569119	T	50	29	C	40	26	intronic	Not Applicable	1	1	0	0.159
FANCA	NM_000135	16	88332356	T	25	4	C	25	6	3_prime_untranslated_region	Not Applicable	1	1	1	0.001
FANCA	NM_000135	16	88332395	G	16	9	A	11	14	intronic	Not Applicable	1	0	0	Unknown
FANCA	NM_000135	16	88333564	C	21	11	G	13	11	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88333844	A	20	7	C	35	3	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88333948	T	17	8	A	30	5	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88335329	A	33	24	C	30	10	intronic	Not Applicable	1	0	0	Unknown
FANCA	NM_000135	16	88335776	C	10	5	A	24	8	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88336672	T	13	6	C	17	6	intronic	Not Applicable	1	0	0	0.001
FANCA	NM_000135	16	88337049	A	24	12	C	15	15	intronic	Not Applicable	1	0	0	Unknown
FANCA	NM_000135	16	88337850	G	24	12	A	14	10	intronic	Not Applicable	1	0	1	Unknown
FANCA	NM_000135	16	88338129	T	17	14	C	16	10	intronic	Not Applicable	1	1	0	0.003
FANCA	NM_000135	16	88338442	A	10	9	C	14	9	intronic	Not Applicable	1	0	1	0.017

FANCA	NM_000135	16	88339947	G	19	19	A	41	15	intronic	Not Applicable	1	1	0	0.001
FANCA	NM_000135	16	88339164	C	19	2	T	33	7	intronic	Not Applicable	1	1	0	0.019
FANCA	NM_000135	16	88339252	G	16	15	C	16	12	intronic	Not Applicable	0	1	0	0.055
FANCA	NM_000135	16	88339784	A	16	9	G	26	26	intronic	Not Applicable	1	1	0	0.006
FANCA	NM_000135	16	88340263	A	42	8	C	14	7	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88340685	T	24	8	C	18	11	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88341090	T	39	7	C	15	18	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88341322	A	19	5	G	25	6	intronic	Not Applicable	1	1	0	0.016
FANCA	NM_000135	16	88342653	A	11	5	G	19	6	missense	p.S108F	1	0	0	0.002
FANCA	NM_000135	16	88342822	T	20	5	C	23	7	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88343815	G	16	5	A	18	7	splice_region	Not Applicable	1	0	0	0.455
FANCA	NM_000135	16	88343834	T	19	7	C	30	6	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88343868	G	23	4	T	20	21	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88343908	G	15	5	A	11	9	intronic	Not Applicable	1	0	0	0.009
FANCA	NM_000135	16	88343925	T	21	3	G	13	10	intronic	Not Applicable	1	0	0	0.028
FANCA	NM_000135	16	88344518	C	28	3	T	26	1	intronic	Not Applicable	0	1	0	Unknown
FANCA	NM_000135	16	88345590	G	25	7	A	34	5	intronic	Not Applicable	1	1	1	0.001
FANCA	NM_000135	16	88349832	T	12	12	C	26	3	intronic	Not Applicable	1	0	0	Unknown
FANCA	NM_000135	16	88349865	A	16	15	C	13	0	intronic	Not Applicable	1	0	0	Unknown
FANCA	NM_000135	16	88350232	A	16	9	C	36	8	intronic	Not Applicable	0	0	0	Unknown
FANCA	NM_000135	16	88350858	T	17	9	C	8	5	intronic	Not Applicable	0	1	0	Unknown
FANCA	NM_000135	16	88352063	C	12	11	G	10	6	intronic	Not Applicable	1	0	0	Unknown
FANCA	NM_000135	16	88354131	A	17	16	G	18	7	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88354427	G	32	17	A	32	7	intronic	Not Applicable	1	1	1	0.002
FANCA	NM_000135	16	88354653	C	24	7	T	20	17	intronic	Not Applicable	1	1	0	0.003
FANCA	NM_000135	16	88354512	G	23	7	C	24	21	intronic	Not Applicable	1	1	0	0.001
FANCA	NM_000135	16	88358744	A	35	19	C	24	7	intronic	Not Applicable	1	1	0	0.001
FANCA	NM_000135	16	88359059	T	33	8	C	17	15	intronic	Not Applicable	1	1	0	0.008
FANCA	NM_000135	16	88359131	A	17	9	G	15	16	intronic	Not Applicable	1	1	0	0.119
FANCA	NM_000135	16	88360252	C	19	5	G	27	7	intronic	Not Applicable	1	1	0	0.007
FANCA	NM_000135	16	88361275	G	31	1	C	20	2	intronic	Not Applicable	1	1	1	0.002
FANCA	NM_000135	16	88362735	A	13	10	G	11	17	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88363022	G	34	5	A	13	14	intronic	Not Applicable	1	1	1	0.008
FANCA	NM_000135	16	88363824	T	33	8	C	17	9	missense	p.G80SD	1	1	1	0.002
FANCA	NM_000135	16	88364282	A	34	14	G	28	3	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88364366	G	21	10	A	22	17	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88364373	C	24	9	T	15	21	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88366942	T	25	12	C	15	12	intronic	Not Applicable	1	1	1	0.003
FANCA	NM_000135	16	88366079	T	33	11	A	27	7	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88366807	G	35	6	A	35	13	intronic	Not Applicable	1	1	1	0.001
FANCA	NM_000135	16	88367138	A	23	10	C	28	7	intronic	Not Applicable	1	1	0	0.002
FANCA	NM_000135	16	88367355	C	14	4	T	34	5	intronic	Not Applicable	1	0	0	0.001
FANCA	NM_000135	16	88367498	A	13	9	G	15	8	intronic	Not Applicable	1	1	1	0.027
FANCA	NM_000135	16	88368209	A	15	3	C	46	4	intronic	Not Applicable	1	0	0	0.006
FANCA	NM_000135	16	88368975	C	32	10	T	16	11	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88369106	G	25	14	T	11	1	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88373696	G	17	12	A	29	24	intronic	Not Applicable	1	1	1	0.005
FANCA	NM_000135	16	88376605	G	18	8	A	14	6	intronic	Not Applicable	1	1	0	Unknown
FANCA	NM_000135	16	88376981	T	22	5	C	19	5	missense	p.Q501S	1	1	0	Unknown
FANCA	NM_000135	16	88377130	A	25	3	T	19	3	intronic	Not Applicable	1	1	1	0.004
FANCA	NM_000135	16	88378505	G	47	16	A	40	9	intronic	Not Applicable	1	1	0	0.005
FANCA	NM_000135	16	88379634	G	18	12	A	21	6	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88380518	G	17	6	A	11	11	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88380808	C	22	16	T	28	11	intronic	Not Applicable	1	1	1	0.001
FANCA	NM_000135	16	88382394	T	7	0	C	10	6	intronic	Not Applicable	0	1	0	0.007
FANCA	NM_000135	16	88385049	G	13	8	A	22	6	intronic	Not Applicable	1	1	1	0.003
FANCA	NM_000135	16	88385438	A	23	16	G	17	8	missense	p.A412V	1	1	0	0.168
FANCA	NM_000135	16	88385525	G	20	6	A	33	11	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88385918	A	11	3	C	21	12	silent	p.T381	1	1	0	0.009
FANCA	NM_000135	16	88386026	G	14	13	C	27	11	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88386158	G	21	7	C	38	22	intronic	Not Applicable	1	1	1	0.001
FANCA	NM_001018112	16	88360264	A	29	7	T	41	5	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown
FANCA	NM_001018112	16	88392743	C	17	13	T	27	7	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88393544	C	13	5	T	12	3	missense	p.T265A	1	1	1	0.051
FANCA	NM_000135	16	88398669	G	21	2	A	14	1	intronic	Not Applicable	1	1	1	0.001
FANCA	NM_000135	16	88402060	C	25	7	A	10	6	intronic	Not Applicable	1	1	0	0.007
FANCA	NM_000135	16	88402760	C	30	6	T	13	7	intronic	Not Applicable	1	1	1	Unknown
FANCA	NM_000135	16	88403211	C	35	8	A	32	3	intronic	Not Applicable	1	1	1	0.172
FANCA	NM_000135	16	88404770	C	15	10	T	10	1	intronic	Not Applicable	1	0	0	Unknown
FANCA	NM_000135	16	88405221	T	12	5	C	17	3	intronic	Not Applicable	1	1	1	0.002
FANCA	NM_000135	16	88408038	T	30	24	A	15	11	intronic	Not Applicable	1	1	1	Unknown
PER1	NM_002616	17	7988884	C	50	25	T	0	0	silent	p.T787	1	1	1	0.886
PER1	NM_002616	17	7992364	G	16	5	A	14	7	intronic	Not Applicable	1	1	0	0.001
PER1	NM_002616	17	7995585	A	15	4	C	16	3	intronic	Not Applicable	1	0	1	Unknown
GAS7	NM_201433	17	9755148	C	51	21	T	0	0	3_prime_untranslated_region	Not Applicable	1	0	1	0.001
GAS7	NM_201433	17	9756951	G	67	21	A	0	0	3_prime_untranslated_region	Not Applicable	1	0	1	Unknown
GAS7	NM_201433	17	9757356	C	13	13	G	23	10	3_prime_untranslated_region	Not Applicable	1	0	1	Unknown
GAS7	NM_201433	17	9758915	C	13	19	A	0	0	3_prime_untranslated_region	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9763312	G	15	6	A	22	12	intronic	Not Applicable	1	0	1	Unknown
GAS7	NM_201433	17	9765456	A	44	12	G	0	1	intronic	Not Applicable	0	1	0	Unknown
GAS7	NM_201433	17	9765692	C	15	5	T	16	5	intronic	Not Applicable	1	0	0	0.004
GAS7	NM_201433	17	9766191	A	70	5	G	0	0	intronic	Not Applicable	1	0	0	0.002
GAS7	NM_201433	17	9767783	T	11	8	C	0	0	intronic	Not Applicable	1	1	0	0.002
GAS7	NM_201433	17	9771771	G	15	15	C	23	7	intronic	Not Applicable	0	1	0	0.003
GAS7	NM_201433	17	9771970	A	47	12	G	0	0	intronic	Not Applicable	1	1	0	0.001
GAS7	NM_201433	17	9773939	G	42	21	C	0	0	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9773963	T	48	8	C	0	0	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9775367	G	15	7	C	20	15	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9781221	T	32	11	C	11	6	intronic	Not Applicable	0	0	0	Unknown
GAS7	NM_201433	17	9781226	G	11	6	A	35	10	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9781951	A	28	9	T	14	3	intronic	Not Applicable	0	0	0	0.016
GAS7	NM_201433	17	9782989	C	12	6	A	13	12	intronic	Not Applicable	1	1	0	0.002
GAS7	NM_201433	17	9784762	T	9	10	C	21	13	intronic	Not Applicable	1	1	0	0.941
GAS7	NM_201433	17	9784768	G	14	12	C	22	11	intronic	Not Applicable	0	1	0	0.889
GAS7	NM_201433	17	9786564	T	35	4	C	17	4	intronic	Not Applicable	0	1	0	Unknown
GAS7	NM_201433	17	9787246	C	14	14	G	12	6	silent	p.T216	1	0	0	0.803
GAS7	NM_201433	17	9787449	A	26	11	C	17	10	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9790470	T	49	9	C	25	9	intronic	Not Applicable	0	1	0	0.002
GAS7	NM_201433	17	9795187	C	28	10	A	19	5	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9797459	G	12	7	A	22	17	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9800824	G	40	20	A	0	0	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9803911	C	38	20	G	0	0	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9801885	T	50	18	C	0	1	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	9802941	A	45	28	C	1	0	intronic	Not Applicable	1	1	1	0.389
GAS7	NM_201433	17	9805348	A	25	11	G	56	6	intronic	Not Applicable	0	0	0	0.028
GAS7	NM_201433	17	9805477	T	52	19	C	0	1	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9809754	A	67	4	C	1	0	intronic	Not Applicable	1	0	0	0.001
GAS7	NM_201433	17	9811531	C	46	35	T	1	0	intronic	Not Applicable	1	1	1	0.005
GAS7	NM_201433	17	9811909	A	40	15	T	1	0	intronic	Not Applicable	1	1	1	0.014
GAS7	NM_201433	17	9811957	G	62	20	A	1	0	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9812269	G	44	28	C	0	0	intronic	Not Applicable	1	1	1	0.024
GAS7	NM_201433	17	9812300	C	64	16	G	0	1	intronic	Not Applicable	1	1	1	0.001
GAS7	NM_201433	17	9812713	T	53	3	C	0	1	intronic	Not Applicable	1	1	1	0.001
GAS7	NM_201433	17	9815935	C	15	3	T	25	5	intronic	Not Applicable	0	0	0	Unknown
GAS7	NM_201433	17	9815248	T	22	7	C	18	19	intronic	Not Applicable	0	0	0	0.001
GAS7	NM_201433	17	9815337	A	48	11	G	22	6	intronic	Not Applicable	0	0	0	0.009
GAS7	NM_201433	17	9815496	G	15	3	T	27	11	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9816285	G	18	11	A	20	1	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9817977	G	18	9	A	15	10	intronic	Not Applicable	1	0	0	0.002
GAS7	NM_201433	17	9819592	T	27	2	A	13	9	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9861358	A	10	9	T	13	3	intronic	Not Applicable	0	0	0	Unknown
GAS7	NM_201433	17	9862480	A	46	2	G	19	27	intronic	Not Applicable	1	0	0	0.002
GAS7	NM_201433	17	9864439	C	58	9	T	0	1	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9866531	G	46	18	C	1	0	intronic	Not Applicable	1	0	0	0.002
GAS7	NM_201433	17	9867746	A	10	7	G	0	0	intronic	Not Applicable	0	0	0	0.001
GAS7	NM_201433	17	9869463	A	69	24	G	0	6	intronic	Not Applicable	0	0	0	0.052
GAS7	NM_201433	17	9871341	T	42	10	A	0	0	intronic	Not Applicable	0	0	0	0.01
GAS7	NM_201433	17	9873250	C	40	7	T	0	0	intronic	Not Applicable	1	0	0	0.001
GAS7	NM_201433	17	9874158	G	51	20	C	2	0	intronic	Not Applicable	0	0	0	0.001
GAS7	NM_201433	17	9875776	G	38	14	C	0	0	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9879396	A	40	15	G	0	0	intronic	Not Applicable	1	0	0	0.001
GAS7	NM_201433	17	9879618	A	27	22	G	1	0	intronic	Not Applicable	0	0	0	0.004
GAS7	NM_201433	17	9886922	G	38	20	T	0	0	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9903461	G	47	22	T	0	1	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9908238	A	34	6	G	14	1	intronic	Not Applicable	1	0	1	0.007
GAS7	NM_201433	17	9908247	A	0	7	G	0	0	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	9908432	C	41	15	T	0	0	intronic	Not Applicable	0	0	0	Unknown
GAS7	NM_201433	17	9910218	G	30	17	A	26	17	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	9911288	C	17	3	T	21	9	intronic	Not Applicable	1	0	0	0.002
GAS7	NM_201433	17	9913060	C	36	8	T	17	4	intronic	Not Applicable	1	0	0	0.009
GAS7	NM_201433	17	9913159	G	20	7	A	35	7	intronic	Not Applicable	0	0	0	Unknown
GAS7	NM_201433	17	9947588	T	12	12	C	15	12	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9951787	G	23	13	A	19	8	intronic	Not Applicable	1	1	0	0.37
GAS7	NM_201433	17	9951934	A	18	12	G	27	12	intronic	Not Applicable	1	1	0	0.985
GAS7	NM_201433	17	9952183	T	9	8	C	9	13	intronic	Not Applicable	1	1	0	0.988
GAS7	NM_201433	17	9956363	T	48	12	G	2	0	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9957123	T	23	7	C	15	19	intronic	Not Applicable	1	1	0	0.003
GAS7	NM_201433	17	9957341	C	61	13	A	2	0	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9957433	A	21	8	C	16	5	intronic	Not Applicable	1	0	0	0.001
GAS7	NM_201433	17	9959225	C	51	10	T	1	0	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9959388	T	13	4	C	9	9	intronic	Not Applicable	1	1	0	0.692
GAS7	NM_201433	17	9960011	A	13	3	G	30	5	intronic	Not Applicable	1	0	0	0.001
GAS7	NM_201433	17	9963010	T	59	15	C	0	0	intronic	Not Applicable	1	1	1	0.001
GAS7	NM_201433	17	9966130	C	58	25	T	0	0	intronic	Not Applicable	1	1	0	0.001
GAS7	NM_201433	17	9966386	G	17	5	A	31	8	intronic	Not Applicable	1	0	0	0.002
GAS7	NM_201433	17	9967542	C	40	20	T	0	0	intronic	Not Applicable	1	1	0	0.001
GAS7	NM_201433	17	9970486	A	17	18	G	22	6	intronic	Not Applicable	0	0	0	0.003
GAS7	NM_201433	17	9970488	A	18	16	G	21	7	intronic	Not Applicable	0	0	0	0.001
GAS7	NM_201433	17	9971208	G	50	12	A	0	0	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	9975140	A	79	13	T	0	0	intronic	Not Applicable	1	1	0	0.001
GAS7	NM_201433	17	9979709	C	10	15	T	22	3	intronic	Not Applicable	0	0	0	Unknown
GAS7	NM_201433	17	9983867	T	11	10	C	17	5	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	9984639	A	51	12	C	17	12	intronic	Not Applicable	1	1	0	0.002
GAS7	NM_201433	17	9987797	A	51	21	G	0	0	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	9989076	T	15	4	A	14	7	intronic	Not Applicable	1	0	1	0.002
GAS7	NM_201433	17	9989456	A	14	7	C	14	4	intronic	Not Applicable	0	0	0	Unknown
GAS7	NM_201433	17	9989963	T	14	10	C	14	12	intronic	Not Applicable	1	1	1	0.001
GAS7	NM_201433	17	9990148	A	15	17	T	14	12	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9990566	C	12	7	T	22	16	intronic	Not Applicable	1	0	0	0.001
GAS7	NM_201433	17	9991080	G	26	11	A	17	3	intronic	Not Applicable	1	0	0	0.001
GAS7	NM_201433	17	9991186	G	9	6	A	8	6	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	9991365	C	9	5	G	13	15	intronic	Not Applicable	1	0	0	0.013
GAS7	NM_201433	17	9991826	T	26	6	C	10	3	intronic	Not Applicable	1	1	0	Unknown
GAS7	NM_201433	17	9995050	G	9	5	A	17	5	intronic	Not Applicable	1	0	0	0.005
GAS7	NM_201433	17	10001841	T	16	14	A	13	20	intronic	Not Applicable	1	0	0	0.03
GAS7	NM_201433	17	10004812	T	18	4	C	25	4	intronic	Not Applicable	0	0	0	0.011
GAS7	NM_201433	17	10014049	A	27	6	G	26	11	intronic	Not Applicable	1	0	1	Unknown
GAS7	NM_201433	17	10015026	T	31	13	C	35	3	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	10015684	T	24	10	C	26	6	intronic	Not Applicable	0	0	0	0.813
GAS7	NM_201433	17	10016239	C	13	2	A	9	2	intronic	Not Applicable	1	0	1	0.001
GAS7	NM_201433	17	GI41874	C	14	7	A	15	4	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	10019241	T	14	4	C	11	4	intronic	Not Applicable	1	1	1	Unknown
GAS7	NM_201433	17	10020755	C	22	5	T	18	8	intronic	Not Applicable	1	0	1	Unknown
GAS7	NM_201433	17	10022346	G	26	20	A	22	5	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	10027089	C	17	7	G	9	11	intronic	Not Applicable	1	1	1	0.128
GAS7	NM_201433	17	10036489	A	16	5	G	20	10	intronic	Not Applicable	1	0	0	Unknown
GAS7	NM_201433	17	10037697	C	13	3	T	16	9	intronic	Not Applicable	1	0	0	Unknown
NF1	ENST00000358273	17	26448115	G	51	10	A	0	0	intronic	Not Applicable	1	1	1	Unknown
NF1	ENST00000358273	17	26467004	C	50	11	T	0	1	intronic	Not Applicable	1	1	1	Unknown
NF1	ENST00000358273	17	26488038	A	54	17	T	0	0	intronic	Not Applicable	1	1	1	Unknown
NF1	ENST00000358273	17	26497703	G	45	30	A	1	0	intronic	Not Applicable	1	1	1	0.946
NF1	ENST00000358273	17	26497479	A	40	23	G	0	0	intronic	Not Applicable	1	1	1	0.016
NF1	ENST00000358273	17	26507004	A	38	13	G	0	1	intronic	Not Applicable	1	1	1	0.094
NF1	ENST00000358273	17	26516549	T	76	10	C	0	0	intronic	Not Applicable	1	1	1	0.008
NF1	ENST00000358273	17	26540239	A	28	7	G	0	0	intronic	Not Applicable	1	1	1	0.043
NF1	ENST00000358273	17	26550868	C	61	7	T	0	0	intronic	Not Applicable	1	1	1	0.006
NF1	ENST00000358273	17	26554488	T	13	6	C	0	0	intronic	Not Applicable	1	1	1	0.001
NF1	ENST00000358273	17	26568259	G	45	12	C	0	0	intronic	Not Applicable	1	1	1	Unknown
NF1	ENST00000358273	17	26567395	T	56	14	G	1	0	intronic	Not Applicable	1	0	1	Unknown
NF1	ENST00000358273	17	26571422	C	58	13	T	0	0	intronic	Not Applicable	1	1	1	0.001
NF1	ENST00000358273	17	26591928	C	42	6	T	0	0	intronic	Not Applicable	1	1	1	Unknown
NF1	ENST00000358273	17	26620261	T	39	7	C	0	0	intronic	Not Applicable	1	1	1	0.017
NF1	ENST00000358273	17	26628536	A	23	9	C	10	6	intronic	Not Applicable	1	0	1	0.093
NF1	ENST00000358273	17	26630794	C	29	4	A	19	3	intronic	Not Applicable	0	0	0	Unknown
NF1	ENST00000358273	17	26666556	C	52	4	T	37	1	intronic	Not Applicable	1	1	1	Unknown

NF1	ENST00000358273	17	26670158 A	24	6 G	21	11 intronic	Not Applicable	1	1	1 Unknown			
NF1	ENST00000358273	17	26672272 A	12	6 G	17	6 intronic	Not Applicable	1	1	1 0.043			
NF1	ENST00000358273	17	26673349 G	19	5 A	17	2 intronic	Not Applicable	1	1	0 Unknown			
NF1	ENST00000358273	17	26677419 C	15	6 T	16	7 intronic	Not Applicable	1	1	1 Unknown			
NF1	ENST00000358273	17	26690665 G	15	4 A	31	7 intronic	Not Applicable	1	1	1 Unknown			
NF1	ENST00000358273	17	26695453 A	15	1 G	15	4 intronic	Not Applicable	1	1	1 Unknown			
NF1	ENST00000358273	17	26708979 T	9	4 C	10	5 intronic	Not Applicable	1	1	1 0.01			
NF1	ENST00000358273	17	26714106 G	23	3 A	20	6 intronic	Not Applicable	1	1	1 0.12			
LASP1	ENST00000354435	17	34282585 T	21	7 C	20	15 intronic	Not Applicable	1	1	0 0.987			
LASP1	ENST00000354435	17	34283203 C	67	37 T	1	0 intronic	Not Applicable	1	1	1 0.001			
LASP1	ENST00000354435	17	34283539 G	10	6 C	15	15 intronic	Not Applicable	1	1	1 0.013			
LASP1	ENST00000354435	17	34284297 C	15	8 T	21	10 intronic	Not Applicable	1	1	1 0.001			
LASP1	ENST00000354435	17	34288344 C	20	5 G	16	8 intronic	Not Applicable	1	1	1 0.001			
LASP1	ENST00000354435	17	34291297 C	23	4 G	26	5 intronic	Not Applicable	1	1	0 0.003			
LASP1	ENST00000354435	17	34291716 C	11	4 T	31	4 intronic	Not Applicable	1	0	1 0.014			
LASP1	ENST00000354435	17	34293223 T	22	5 C	15	8 intronic	Not Applicable	1	1	0 0.126			
LASP1	ENST00000354435	17	34294975 A	38	6 G	22	3 intronic	Not Applicable	1	0	0 0.001			
LASP1	ENST00000354435	17	34295532 A	16	7 G	21	9 intronic	Not Applicable	1	0	0 0.003			
LASP1	ENST00000354435	17	34297197 G	25	13 A	18	14 intronic	Not Applicable	1	0	1 Unknown			
LASP1	ENST00000354435	17	34300811 G	14	8 A	18	14 intronic	Not Applicable	1	0	0 Unknown			
LASP1	ENST00000354435	17	34301247 G	12	15 A	21	19 intronic	Not Applicable	0	0	0 Unknown			
LASP1	ENST00000354435	17	34301951 G	45	18 A	0	0 intronic	Not Applicable	1	1	1 Unknown			
LASP1	ENST00000354435	17	34302642 G	12	8 A	10	12 intronic	Not Applicable	1	1	1 0.003			
LASP1	ENST00000354435	17	34304125 G	16	4 A	16	10 intronic	Not Applicable	1	0	0 Unknown			
LASP1	ENST00000354435	17	34305857 C	46	16 T	0	0 intronic	Not Applicable	1	1	1 Unknown			
LASP1	ENST00000354435	17	34307518 A	11	6 G	22	9 intronic	Not Applicable	1	1	1 0.002			
LASP1	ENST00000354435	17	34308298 T	12	7 C	25	8 silent	p.N119	1	1	1 0.986			
LASP1	ENST00000354435	17	34308410 G	21	5 A	18	3 intronic	Not Applicable	1	1	1 Unknown			
LASP1	ENST00000354435	17	34308492 T	22	4 C	28	9 intronic	Not Applicable	0	0	0 0.008			
LASP1	ENST00000354435	17	34310761 G	11	3 A	8	4 intronic	Not Applicable	1	1	1 0.001			
LASP1	ENST00000354435	17	34311863 G	26	5 C	19	7 intronic	Not Applicable	1	1	1 0.414			
LASP1	ENST00000354435	17	34315873 A	44	11 G	0	0 intronic	Not Applicable	1	1	1 0.002			
LASP1	ENST00000354435	17	34319976 G	25	10 A	54	5 intronic	Not Applicable	1	1	1 0.003			
LASP1	ENST00000354435	17	34320888 T	12	6 C	20	3 intronic	Not Applicable	1	1	1 0.016			
LASP1	ENST00000354435	17	34321365 A	26	9 G	12	8 intronic	Not Applicable	1	1	1 Unknown			
LASP1	ENST00000354435	17	34321882 A	27	15 G	19	21 intronic	Not Applicable	1	1	0 Unknown			
LASP1	ENST00000354435	17	34321986 G	34	2 C	29	4 intronic	Not Applicable	1	1	1 0.066			
LASP1	ENST00000354435	17	34322461 T	16	17 G	23	8 intronic	Not Applicable	1	1	0 0.007			
LASP1	ENST00000354435	17	34322920 G	22	8 A	10	9 intronic	Not Applicable	1	1	0 0.015			
LASP1	ENST00000354435	17	34324263 G	13	4 A	48	5 splice_region	Not Applicable	1	1	1 Unknown			
LASP1	ENST00000354435	17	34324514 T	18	7 A	32	16 intronic	Not Applicable	1	0	1 Unknown			
LASP1	ENST00000354435	17	34324520 G	20	6 A	28	14 intronic	Not Applicable	1	1	1 Unknown			
LASP1	ENST00000354435	17	34324715 T	19	10 C	18	5 intronic	Not Applicable	1	1	1 Unknown			
LASP1	NM_006148	17	34329284 A	11	4 G	12	13 3_prime_untranslated_region	Not Applicable	1	0	1 0.031			
RARA	ENST00000319149	17	35752345 A	13	5 G	11	12 intronic	Not Applicable	0	0	0 0.001			
RARA	ENST00000319149	17	35755986 T	30	8 G	62	13 intronic	Not Applicable	0	0	0 0.192			
BRIP1	NM_032043	17	57115778 G	48	7 A	1	0 silent	p.Y1137	1	1	0 1			
BRIP1	NM_032043	17	57118129 G	46	9 A	0	0 missense	p.S919P	1	1	1 Unknown			
BRIP1	NM_032043	17	57122189 C	28	15 T	17	4 intronic	Not Applicable	1	0	0 0.254			
BRIP1	NM_032043	17	57133575 T	15	5 G	23	4 intronic	Not Applicable	1	1	0 0.023			
BRIP1	NM_032043	17	57143677 G	29	6 A	16	13 intronic	Not Applicable	1	1	1 0.043			
BRIP1	NM_032043	17	57155809 C	11	13 T	13	15 intronic	Not Applicable	1	1	0 0.994			
BRIP1	NM_032043	17	57159262 G	8	4 T	12	7 intronic	Not Applicable	1	1	1 Unknown			
BRIP1	NM_032043	17	57165213 T	18	4 C	14	8 intronic	Not Applicable	1	1	1 Unknown			
BRIP1	NM_032043	17	57173704 A	23	7 C	58	7 intronic	Not Applicable	1	1	1 0.997			
BRIP1	NM_032043	17	57180904 T	35	2 C	14	8 intronic	Not Applicable	1	1	0 Unknown			
BRIP1	NM_032043	17	57181999 G	11	10 A	14	2 intronic	Not Applicable	1	1	0 Unknown			
BRIP1	NM_032043	17	57185916 C	10	8 G	19	11 intronic	Not Applicable	1	1	1 Unknown			
BRIP1	NM_032043	17	57195967 A	15	6 G	10	4 intronic	Not Applicable	1	1	1 0.011			
BRIP1	NM_032043	17	57209863 G	51	15 A	0	0 intronic	Not Applicable	1	1	0 0.107			
BRIP1	NM_032043	17	57210911 A	44	11 G	1	0 intronic	Not Applicable	1	1	1 0.004			
BRIP1	NM_032043	17	57216881 A	16	9 G	16	4 intronic	Not Applicable	1	1	1 0.093			
BRIP1	NM_032043	17	57232732 G	14	6 A	10	7 intronic	Not Applicable	1	1	0 0.001			
BRIP1	NM_032043	17	57232766 T	14	3 C	16	9 intronic	Not Applicable	1	1	1 0.001			
BRIP1	NM_032043	17	57240128 G	18	2 T	13	2 intronic	Not Applicable	1	1	1 Unknown			
BRIP1	NM_032043	17	57243200 T	11	2 G	27	8 intronic	Not Applicable	1	0	1 0.004			
BRIP1	NM_032043	17	57243453 G	13	2 A	5	7 intronic	Not Applicable	0	1	0 Unknown			
BRIP1	NM_032043	17	57246900 A	19	5 C	24	3 intronic	Not Applicable	0	0	0 0.008			
BRIP1	NM_032043	17	57248279 C	24	10 T	38	19 intronic	Not Applicable	1	1	1 1			
BRIP1	NM_032043	17	57254622 A	46	11 G	0	0 intronic	Not Applicable	1	1	0 0.001			
BRIP1	NM_032043	17	57261253 A	42	5 C	1	0 intronic	Not Applicable	1	1	0 Unknown			
BRIP1	NM_032043	17	57261257 A	43	6 G	1	0 intronic	Not Applicable	1	1	0 Unknown			
BRIP1	NM_032043	17	57272386 G	53	12 A	0	0 intronic	Not Applicable	0	1	0 Unknown			
BRIP1	NM_032043	17	57295415 T	48	19 C	1	0 intronic	Not Applicable	1	0	0 0.001			
SEPT9	NM_006640	17	72832829 C	43	25 T	0	0 intronic	Not Applicable	1	1	1 0.991			
SEPT9	NM_006640	17	72834071 G	25	22 C	0	1 intronic	Not Applicable	1	0	0 Unknown			
SEPT9	NM_006640	17	72837208 G	39	28 A	0	0 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72838112 C	38	16 A	0	3 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72849096 C	54	8 G	0	0 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72850084 C	49	12 A	0	0 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72854686 G	51	12 A	1	0 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72855384 G	58	9 A	0	0 intronic	Not Applicable	0	0	0 Unknown			
SEPT9	NM_006640	17	72856331 C	50	9 T	0	0 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72859207 T	51	16 C	0	0 intronic	Not Applicable	1	1	1 Unknown			
SEPT9	NM_006640	17	72861222 C	34	5 A	29	3 intronic	Not Applicable	0	0	0 0.001			
SEPT9	NM_006640	17	72861670 C	42	21 G	0	0 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72861770 T	48	14 C	0	0 intronic	Not Applicable	1	1	1 Unknown			
SEPT9	NM_006640	17	72862599 A	51	12 G	0	0 intronic	Not Applicable	1	1	1 0.016			
SEPT9	NM_006640	17	72863018 T	43	13 C	0	1 intronic	Not Applicable	1	1	1 0.007			
SEPT9	NM_006640	17	72864212 T	54	5 C	1	0 intronic	Not Applicable	0	1	0 Unknown			
SEPT9	NM_006640	17	72864697 G	52	16 A	0	0 intronic	Not Applicable	1	1	1 0.001			
SEPT9	NM_006640	17	72864755 G	53	20 A	0	1 intronic	Not Applicable	1	1	1 0.001			
SEPT9	NM_006640	17	72865974 G	19	3 A	27	19 intronic	Not Applicable	0	0	0 0.007			
SEPT9	NM_006640	17	72872678 C	61	18 T	0	0 intronic	Not Applicable	1	1	0 Unknown			
SEPT9	NM_006640	17	72878253 T	25	15 C	16	9 intronic	Not Applicable	1	1	1 Unknown			
SEPT9	NM_006640	17	72878596 A	51	4 G	30	12 intronic	Not Applicable	1	0	0 0.002			
SEPT9	NM_006640	17	72878831 G	19	5 A	10	15 intronic	Not Applicable	0	0	0 0.047			
SEPT9	NM_006640	17	72878922 C	41	24 A	0	0 intronic	Not Applicable	1	1	1 0.001			
SEPT9	NM_006640	17	72882083 G	17	1 T	21	3 intronic	Not Applicable	1	1	0 Unknown			
SEPT9	NM_006640	17	72883417 C	21	12 T	9	6 intronic	Not Applicable	1	1	1 Unknown			
SEPT9	NM_006640	17	72883721 G	13	5 C	16	21 intronic	Not Applicable	1	1	0 Unknown			
SEPT9	NM_006640	17	72883934 T	13	5 C	17	2 intronic	Not Applicable	1	1	1 Unknown			
SEPT9	NM_006640	17	72884445 A	16	6 G	40	10 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72884765 T	22	3 C	13	4 intronic	Not Applicable	1	1	1 0.001			
SEPT9	NM_006640	17	72885703 C	10	6 T	11	9 intronic	Not Applicable	1	1	1 Unknown			
SEPT9	NM_006640	17	72886794 T	13	1 C	11	20 intronic	Not Applicable	1	1	1 0.001			
SEPT9	NM_006640	17	72894636 G	25	7 A	34	5 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72894656 A	25	9 G	28	3 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72895274 T	9	9 C	11	21 intronic	Not Applicable	1	0	1 0.007			
SEPT9	NM_006640	17	72896864 T	36	17 C	21	15 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72897370 A	24	2 C	13	3 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72908982 C	54	17 T	0	0 intronic	Not Applicable	1	1	1 Unknown			
SEPT9	NM_006640	17	72912820 G	21	5 T	37	11 intronic	Not Applicable	1	0	1 0.027			
SEPT9	NM_006640	17	72923672 G	22	11 A	13	14 intronic	Not Applicable	0	0	0 Unknown			
SEPT9	NM_006640	17	72990076 T	23	8 C	20	10 intronic	Not Applicable	1	0	1 0.007			
SEPT9	NM_006640	17	72991700 C	38	18 T	0	0 intronic	Not Applicable	1	0	1 0.06			
SEPT9	NM_006640	17	72993018 C	67	26 G	5	2 intronic	Not Applicable	0	0	0 Unknown			
SEPT9	NM_006640	17	72993080 G	46	32 A	0	1 intronic	Not Applicable	0	0	0 Unknown			
SEPT9	NM_006640	17	72994447 G	40	22 T	0	0 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	72995596 A	38	11 G	0	0 intronic	Not Applicable	1	0	1 0.011			
SEPT9	NM_006640	17	72998376 C	46	34 T	0	0 intronic	Not Applicable	1	0	1 Unknown			
SEPT9	NM_006640	17	73002851 G	33	10 A	18	10 intronic	Not Applicable	1	1	0 Unknown			
SEPT9	NM_006640	17	73004380 G	16	6 A	15	13 intronic	Not Applicable	1	1	0 Unknown			
SEPT9	NM_006640	17	73006660 C	14	7 T	10	6 3_prime_untranslated_region	Not Applicable	1	1	0 0.002			
SMAD4	NM_005359	18	46822311 T	29	4 C	15	9 intronic	Not Applicable	0	0	0 0.001			
CEBPA	NM_004364	19	33483647 C	22	23 T	11	3 3_prime_untranslated_region	Not Applicable	1	0	0 0.043			
RPS19	NM_001022	19	47057804 T	18	3 C	9	7 intronic	Not Applicable	1	1	1 Unknown			
RPS19	NM_001022	19	47064848 A	35	5 G	18	4 intronic	Not Applicable	0	0	0 Unknown			
RPS19	NM_001022	19	47065469 A	39	26 G	0	0 intronic	Not Applicable	1	1	1 0.001			
RPS19	NM_001022	19	47065578 G	18	6 A	20	3 intronic	Not Applicable	1	0	1 Unknown			
RPS19	NM_001022	19	47065382 C	10	11 G	13	16 intronic	Not Applicable	1	0	0 Unknown			
RPS19	NM_001022	19	47066576 G	25	5 T	17	7 intronic	Not Applicable	1	1	1 Unknown			
RPS19	NM_001022	19	47067084 T	24	11 C	15	11 intronic	Not Applicable	1	1	1 0.003			
FANCL	NM_018062	2	58269230 G	19	1 C	28	7 intronic	Not Applicable	0	0	0 Unknown			
FANCL	NM_018062	2	58269619 A	43	10 C	1	0 intronic	Not Applicable	1	1	1 0.001			
FANCL	NM_018062	2	58274389 G	48	14 A	0	0 intronic	Not Applicable	1	1	0 Unknown			
FANCL	NM_018062	2	58285104 A	35	9 C	21	7 intronic	Not Applicable	1	0	0 1			
FANCL	NM_018062	2	58285046 G	16	7 A	18	4 intronic	Not Applicable	1	0	0 0.172			
FANCL	NM_018062	2	58298114 G	9	13 C	0	0 intronic	Not Applicable	1	1	1 0.001			
FANCL	NM_018062	2	58299414 C	31	2 T	15	13 intronic	Not Applicable	0	0	0 0.056			
FANCL	NM_018062	2	58308451 C	16	5 T	42	3 intronic	Not Applicable	0	0	0 Unknown			
FANCL	NM_018062	2	58309176 C	41	2 A	19	4 intronic	Not Applicable	1	1	1 0.001			
HOXD13	ENST00000249505	2	176669947 C	9	5 A	19	9 intronic	Not Applicable	1	1	0 Unknown			
TOP1	NM_003286	20	39189931 T	28	12 C	23	12 intronic	Not Applicable	0	0	0 0.175			
TOP1	NM_003286	20	39122521 G	35	4 C	28	12 intronic	Not Applicable	0	0	0 0.083			
TOP1	NM_003286	20	39128121 A	38	5 G	0	0 intronic	Not Applicable	1	1	1 0.004			
TOP1	NM_003286	20	39130230 C	13	8 T	14	1 intronic	Not Applicable	0	0	0 0.002			
TOP1	NM_003286	20	39151623 A	14	3 G	23	1 intronic	Not Applicable	0	0	0 0.039			
TOP1	NM_003286	20	39154787 G	17	1 A	10	6 intronic	Not Applicable	1	0	0 0.001			
TOP1	NM_003286	20	39156423 C	16	2 A	54	6 intronic	Not Applicable	1	0	0 Unknown			
TOP1	NM_003286	20	39157752 C	36	5 T	26	10 intronic	Not Applicable	1	0	0 0.003			
TOP1	NM_003286	20	39170125 C	112	18 T	0	0 intronic	Not Applicable	1	1	1 Unknown			
TOP1	NM_003286	20	39170734 T	32	10 C	39	10 intronic	Not Applicable	0	0	0 0.009			
TOP1	NM_003286	20	39178224 A	51	18 C	0	0 intronic	Not Applicable	1	1	1 Unknown			
RUNX1	NM_001754	21	35082162 A	30	3 G	16	6 3_prime_untranslated_region	Not Applicable	0	0	0 Unknown			
RUNX1	NM_001754	21	35089145 G	15	10 A	9	12 intronic	Not Applicable	1	0	0 0.001			
RUNX1	NM_001754	21	35090644 G	17	5 A	32	4 intronic	Not Applicable	1	0	0 0.001			
RUNX1	NM_001754	21	35090937 T	18	4 C	28	7 intronic	Not Applicable	0	0	0 0.001			
RUNX1	NM_001754	21	35097065 G	38	4 A	58	4 intronic	Not Applicable	0	0	0 Unknown			
RUNX1	NM_001754	21	35098272 C	13	4 T	13	9 intronic	Not Applicable	0	0	0 Unknown			
RUNX1	NM_001754	21	35102856 G	47	26 A	0	1 intronic	Not Applicable	1	0	1 0.963			
RUNX1	NM_001754	21	35102884 A	15	9 G	14	16 intronic	Not Applicable	1	0	1 0.994			
RUNX1	NM_001754	21	35103919 G	50	14 G	0	0 intronic	Not Applicable	1	0	1 0.002			
RUNX1	NM_001754	21	35107960 C	33	12 T	42	10 intronic	Not Applicable	1	0	0 0.001			
RUNX1	NM_001754	21	35107962 T	34	12 A	34	8 intronic	Not Applicable	1	0	0 Unknown			
RUNX1	NM_001754	21	35108617 C	39	12 T	0	0 intronic	Not Applicable	1	1	1 0.001			
RUNX1	NM_001754	21	35109770 G	35	9 T	19	3 intronic	Not Applicable	1	1	1 0.078			
RUNX1	NM_001754	21	35113178 C	42	9 T	0	0 intronic	Not Applicable	1	1	1 Unknown			
RUNX1	NM_001754	21	35113235 G	59	29 A	0	0 intronic	Not Applicable	1	1	0 0.001			
RUNX1	NM_001754	21	35113516 C	49	20 G	0	0 intronic	Not Applicable	1	1	0 0.002			
RUNX1	NM_001754	21	35120060 G	25	18 A	9	7 intronic	Not Applicable	0	0	0 0.008			
RUNX1	NM_001754	21	35128012 G	22	13 C	11	7 intronic	Not Applicable	1	1	1 0.001			
RUNX1	NM_001754	21	35129320 G	18	7 C	18	14 intronic	Not Applicable	0	0	0 Unknown			
RUNX1	NM_001754	21	35135749 C	14	8 T	14	6 intronic	Not Applicable	1	0	1 0.116			
RUNX1	NM_001754	21	35135767 G	22	9 A	15	10 intronic	Not Applicable	1	1	1 Unknown			
RUNX1	NM_001754	21	35142942 C	21	8 T	12	3 intronic	Not Applicable	1	1	0 Unknown			
RUNX1	NM_001754	21	35151507 A	15	3 G	18	7 intronic	Not Applicable	1	1	1 Unknown			
RUNX1	NM_001754	21	35156070 A	38	11 C	35	12 intronic	Not Applicable	1	1	0 0.001			
RUNX1	NM_001754	21	35156917 T	17	9 G	12	16 intronic	Not Applicable	1	1	0 Unknown			
RUNX1	NM_001754	21	35157181 C	17	9 T	24	5 intronic	Not Applicable	1	1	1 0.028			
RUNX1	NM_001754	21	35157609 G	10	5 A	15	3 intronic	Not Applicable	1	0	1 Unknown			
RUNX1	NM_001754	21	35158313 C	22	2 T	19	5 intronic	Not Applicable	1	0	0 0.001			
RUNX1	NM_001754	21	35158386 A	21	7 G	22	7 intronic	Not Applicable	1	0	0 Unknown			
RUNX1	NM_001754	21	35159416 T	24	19 C	16	12 intronic	Not Applicable	1	1	0 Unknown			
RUNX1	NM_001754	21	35159526 T	22	15 C	18	6 intronic	Not Applicable	1	1	0 Unknown			
RUNX1	NM_001754	21	35160069 G	21	11 A	30	20 intronic	Not Applicable	1	0	1 Unknown			
RUNX1	NM_001754	21	35160177 C	18	8 T	10	10 intronic	Not Applicable	1	0	1 Unknown			
RUNX1	NM_001754	21	35167772 C	16	2 A	15	13 intronic	Not Applicable	1	1	0 Unknown			
RUNX1	NM_001754	21	35167948 C	27	7 T	19	12 intronic	Not Applicable	1	1	0 Unknown			
RUNX1	NM_001754	21	35167962 G	27	9 A	14	11 intronic	Not Applicable	1	1	0 0.001			
RUNX1	NM_001754	21	35168122 A	23	6 G	15	3 intronic	Not Applicable	1	0	0 Unknown			
RUNX1	NM_001754	21	35168222 C	13	6 A	9	5 intronic	Not Applicable	1	1	0 0.001			
RUNX1	NM_001754	21	35169101 T	41	3 C	17	13 intronic	Not Applicable	0	1	0 0.03			
RUNX1	NM_001754	21	35169314 T	13	11 C	63	11 intronic	Not Applicable	1	1	0 Unknown			
RUNX1	NM_001754	21	35169991 C	29	10 G	18	8 intronic	Not Applicable	1	0	0 0.037			
RUNX1	NM_001754	21	35172634 A	20	7 G	14	3 intronic	Not Applicable	1	0	1 Unknown			
RUNX1	NM_001754	21	35176677 C	10	4 T	9	4 intronic	Not Applicable	1	1	0 0.028			
RUNX1	NM_001754	21	35188856 C	12	6 T	24	6 intronic	Not Applicable	0	1	0 0.001			
RUNX1	NM_001754	21	35199257 C	38	13 T	27	5 intronic	Not Applicable	1	1	0 0.003			
RUNX1	NM_001754	21	35186711 C	42	6 A	1	0 intronic	Not Applicable	1	1	1 Unknown			
RUNX1	NM_001754	21	35208808 T	40	13 A	27	8 intronic	Not Applicable	1	0	0 0.001			
RUNX1	NM_001754	21	35213952 T	15	8 C	11	3 intronic	Not Applicable	1	1	1 Unknown			

RUNX1	NM_001754	21	35215435	G	48	27	A	0	1	intronic	Not Applicable	1	1	1	0.001
RUNX1	NM_001754	21	35216255	T	24	2	C	15	3	intronic	Not Applicable	1	0	0	Unknown
RUNX1	NM_001754	21	35216409	C	30	8	T	34	14	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35219890	A	40	9	C	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35221535	T	44	5	G	21	8	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35226280	C	39	13	T	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35257449	A	66	19	G	0	0	intronic	Not Applicable	1	1	0	0.106
RUNX1	NM_001754	21	35257851	C	47	18	C	0	0	intronic	Not Applicable	1	0	0	Unknown
RUNX1	NM_001754	21	35257893	A	47	24	C	0	0	intronic	Not Applicable	1	1	0	0.446
RUNX1	NM_001754	21	35258116	C	43	15	T	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35258744	T	42	21	C	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35259190	T	64	19	C	2	0	intronic	Not Applicable	1	1	0	Unknown
RUNX1	NM_001754	21	35259363	A	59	34	G	0	0	intronic	Not Applicable	1	0	1	Unknown
RUNX1	NM_001754	21	35259461	C	50	17	T	0	0	intronic	Not Applicable	1	0	1	0.002
RUNX1	NM_001754	21	35259524	C	55	15	A	0	0	intronic	Not Applicable	1	0	1	0.017
RUNX1	NM_001754	21	35260786	G	43	18	C	0	1	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35262686	C	17	10	T	47	10	intronic	Not Applicable	1	0	0	Unknown
RUNX1	NM_001754	21	35262726	T	26	3	C	16	6	intronic	Not Applicable	1	0	0	Unknown
RUNX1	NM_001754	21	35263589	A	22	5	G	15	2	intronic	Not Applicable	0	1	0	Unknown
RUNX1	NM_001754	21	35275530	T	66	9	C	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35279333	T	45	12	C	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35279482	A	36	7	G	28	20	intronic	Not Applicable	1	1	0	0.004
RUNX1	NM_001754	21	35279731	G	23	3	A	47	3	intronic	Not Applicable	1	1	1	0.001
RUNX1	NM_001754	21	35279947	G	19	7	A	20	2	intronic	Not Applicable	1	1	0	0.003
RUNX1	NM_001754	21	35280633	C	63	19	T	0	0	intronic	Not Applicable	1	1	0	Unknown
RUNX1	NM_001754	21	35281262	A	30	9	G	27	9	intronic	Not Applicable	1	1	1	0.002
RUNX1	NM_001754	21	35282009	T	55	15	C	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35284449	C	56	16	T	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35284852	A	20	7	G	26	4	intronic	Not Applicable	0	0	0	Unknown
RUNX1	NM_001754	21	35285392	T	28	4	A	10	7	intronic	Not Applicable	1	0	0	Unknown
RUNX1	NM_001754	21	35286468	G	9	5	A	11	5	intronic	Not Applicable	1	0	0	Unknown
RUNX1	NM_001754	21	35286521	A	10	6	G	10	6	intronic	Not Applicable	1	0	0	0.001
RUNX1	NM_001754	21	35286635	C	19	5	T	26	7	intronic	Not Applicable	1	0	0	0.001
RUNX1	NM_001754	21	35293988	C	18	3	T	15	5	intronic	Not Applicable	1	0	0	0.001
RUNX1	NM_001754	21	35294832	C	16	1	T	12	5	intronic	Not Applicable	1	0	0	Unknown
RUNX1	NM_001754	21	35297464	A	17	8	G	9	7	intronic	Not Applicable	1	0	0	0.525
RUNX1	NM_001754	21	35299091	T	14	4	A	17	4	intronic	Not Applicable	1	0	0	Unknown
RUNX1	NM_001754	21	35300441	G	13	6	A	28	3	intronic	Not Applicable	1	0	1	Unknown
RUNX1	NM_001754	21	35311409	T	16	3	C	11	6	intronic	Not Applicable	0	0	0	0.001
RUNX1	NM_001754	21	35317885	C	42	18	T	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35318427	G	48	17	C	0	0	intronic	Not Applicable	1	1	1	0.014
RUNX1	NM_001754	21	35321632	C	17	7	T	21	6	intronic	Not Applicable	1	0	1	Unknown
RUNX1	NM_001754	21	35327536	T	17	27	C	19	14	intronic	Not Applicable	1	1	1	Unknown
RUNX1	NM_001754	21	35328420	C	27	4	T	36	9	intronic	Not Applicable	1	1	1	0.003
RUNX1	NM_001754	21	35331042	T	15	11	C	36	6	intronic	Not Applicable	0	0	0	Unknown
RUNX1	NM_001754	21	35336682	G	42	23	A	0	0	intronic	Not Applicable	1	1	1	Unknown
SEPT5	NM_002688	22	18008284	T	12	2	C	11	1	3_prime_untranslated_region	Not Applicable	1	0	1	0.002
MN1	NM_002430	22	26477477	A	37	16	G	22	8	intronic	Not Applicable	1	0	0	Unknown
MN1	NM_002430	22	26481120	G	12	13	C	15	30	intronic	Not Applicable	1	1	0	0.001
MN1	NM_002430	22	26481673	G	19	9	A	20	12	intronic	Not Applicable	1	1	1	Unknown
MN1	NM_002430	22	26483856	C	16	12	A	24	11	intronic	Not Applicable	1	1	1	0.002
MN1	NM_002430	22	26484618	T	35	5	G	13	5	intronic	Not Applicable	1	1	1	0.001
MN1	NM_002430	22	26484976	A	19	14	G	27	13	intronic	Not Applicable	0	0	0	Unknown
MN1	NM_002430	22	26489534	G	16	4	T	18	5	intronic	Not Applicable	0	0	0	0.001
MN1	NM_002430	22	26489990	C	18	11	T	13	11	intronic	Not Applicable	1	1	1	Unknown
MN1	NM_002430	22	26491805	C	28	4	G	15	7	intronic	Not Applicable	0	0	0	Unknown
MN1	NM_002430	22	26495301	G	18	10	T	15	6	intronic	Not Applicable	1	0	0	0.008
MN1	NM_002430	22	26496402	G	14	11	C	21	4	intronic	Not Applicable	1	1	1	0.001
MN1	NM_002430	22	26498483	C	25	22	G	15	10	intronic	Not Applicable	1	0	0	Unknown
MN1	NM_002430	22	26500723	T	17	13	A	17	10	intronic	Not Applicable	1	1	0	Unknown
MN1	NM_002430	22	26509923	C	42	11	T	0	0	intronic	Not Applicable	1	1	1	Unknown
MN1	NM_002430	22	26511399	T	14	0	C	8	2	intronic	Not Applicable	1	1	1	0.001
MKL1	NM_020831	22	39145375	A	15	22	G	26	5	intronic	Not Applicable	0	0	0	0.017
MKL1	NM_020831	22	39146995	A	16	14	G	19	14	intronic	Not Applicable	1	1	1	Unknown
MKL1	NM_020831	22	39179008	A	16	14	G	11	22	intronic	Not Applicable	1	0	0	0.003
MKL1	NM_020831	22	39179508	C	22	6	G	78	3	intronic	Not Applicable	1	0	0	0.001
MKL1	NM_020831	22	39180012	C	16	6	T	11	7	intronic	Not Applicable	1	0	0	Unknown
MKL1	NM_020831	22	39184402	T	15	4	G	14	6	intronic	Not Applicable	1	0	0	Unknown
MKL1	NM_020831	22	39189535	C	15	8	A	15	1	intronic	Not Applicable	1	0	0	0.029
MKL1	NM_020831	22	39191430	T	22	7	C	14	7	intronic	Not Applicable	1	0	0	Unknown
MKL1	NM_020831	22	39193227	A	34	8	G	15	5	intronic	Not Applicable	1	0	0	0.001
MKL1	NM_020831	22	39205145	G	19	4	C	10	7	intronic	Not Applicable	0	0	0	Unknown
MKL1	NM_020831	22	39205216	C	42	9	A	30	4	intronic	Not Applicable	0	0	0	Unknown
MKL1	NM_020831	22	39207581	A	12	12	C	18	19	intronic	Not Applicable	1	0	0	Unknown
MKL1	NM_020831	22	39208764	A	9	2	G	12	8	intronic	Not Applicable	1	0	0	0.009
MKL1	NM_020831	22	39211348	C	26	7	T	25	16	intronic	Not Applicable	1	0	0	0.994
MKL1	NM_020831	22	39213115	A	29	1	C	32	13	intronic	Not Applicable	1	0	0	0.013
MKL1	NM_020831	22	39230787	T	57	9	C	0	0	intronic	Not Applicable	1	1	1	0.001
MKL1	NM_020831	22	39243065	A	32	7	T	15	6	intronic	Not Applicable	0	0	0	0.676
MKL1	NM_020831	22	39245864	T	19	4	C	20	10	intronic	Not Applicable	1	0	1	0.001
MKL1	NM_020831	22	39248266	A	16	3	G	14	12	intronic	Not Applicable	1	0	0	0.001
MKL1	NM_020831	22	39253218	T	24	3	C	45	7	intronic	Not Applicable	1	0	0	Unknown
MKL1	NM_020831	22	39269121	C	16	3	G	17	7	intronic	Not Applicable	1	0	0	0.006
MKL1	NM_020831	22	39271133	A	37	3	G	14	9	intronic	Not Applicable	1	0	0	0.886
MKL1	NM_020831	22	39285101	T	12	4	A	19	6	intronic	Not Applicable	0	0	0	Unknown
MKL1	NM_020831	22	39294334	C	14	5	G	33	7	intronic	Not Applicable	1	0	1	Unknown
MKL1	NM_020831	22	39305214	T	13	7	C	13	2	intronic	Not Applicable	1	0	0	0.122
MKL1	NM_020831	22	39328395	C	9	8	A	16	3	intronic	Not Applicable	1	0	1	Unknown
MKL1	NM_020831	22	39333177	A	14	5	G	18	9	intronic	Not Applicable	1	0	0	Unknown
MKL1	NM_020831	22	39342384	T	45	6	C	15	2	intronic	Not Applicable	1	0	1	0.001
MKL1	NM_020831	22	39349894	A	18	8	C	12	8	intronic	Not Applicable	1	0	0	0.04
MKL1	NM_020831	22	39350525	C	30	8	G	17	0	intronic	Not Applicable	1	0	0	Unknown
MKL1	NM_020831	22	39358101	A	20	9	C	19	3	intronic	Not Applicable	1	0	0	0.003
EP300	NM_001429	22	39809626	C	39	3	G	33	2	intronic	Not Applicable	1	0	1	Unknown
EP300	NM_001429	22	39821748	C	40	17	T	0	0	intronic	Not Applicable	1	1	1	Unknown
EP300	NM_001429	22	39859970	G	21	5	T	14	5	intronic	Not Applicable	1	0	1	0.224
EP300	NM_001429	22	39861185	G	39	18	A	0	0	intronic	Not Applicable	1	1	1	Unknown
EP300	NM_001429	22	39861971	G	11	7	A	12	9	intronic	Not Applicable	1	0	1	Unknown
EP300	NM_001429	22	39867180	T	47	11	G	0	0	splice_region	Not Applicable	1	1	1	0.006
EP300	NM_001429	22	39867535	G	34	4	A	17	7	intronic	Not Applicable	1	0	1	0.011
EP300	NM_001429	22	39875557	C	43	10	G	0	0	intronic	Not Applicable	1	1	1	Unknown
EP300	NM_001429	22	39879243	G	73	11	A	0	0	intronic	Not Applicable	1	0	1	Unknown
EP300	NM_001429	22	39880900	T	12	2	C	17	3	intronic	Not Applicable	1	0	1	0.006
EP300	NM_001429	22	39880985	A	15	4	T	11	12	silent	p.T1091	1	0	1	0.891
EP300	NM_001429	22	39888178	G	29	7	A	14	4	intronic	Not Applicable	1	0	1	Unknown
EP300	NM_001429	22	39894654	A	23	10	C	12	23	intronic	Not Applicable	1	0	1	Unknown
EP300	NM_001429	22	39895299	T	13	2	C	11	9	intronic	Not Applicable	0	0	0	Unknown
FANCD2	NM_033084	3	10047053	G	60	18	T	27	16	intronic	Not Applicable	0	0	0	Unknown
FANCD2	NM_033084	3	10047814	T	18	2	A	25	5	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10052955	G	9	5	A	17	4	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10063636	A	11	3	G	21	8	intronic	Not Applicable	0	0	0	0.012
FANCD2	NM_033084	3	10064146	G	19	3	A	12	1	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10064773	C	29	5	A	28	7	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10073748	T	22	6	C	47	4	intronic	Not Applicable	0	0	0	0.003
FANCD2	NM_033084	3	10083178	T	10	3	C	31	2	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10086922	T	15	8	C	34	2	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10088805	G	16	11	A	10	11	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10100283	T	23	3	C	44	16	intronic	Not Applicable	1	0	0	0.029
FANCD2	NM_033084	3	10101083	G	12	4	C	18	9	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10101312	T	36	7	G	14	7	intronic	Not Applicable	1	0	0	0.312
FANCD2	NM_033084	3	10103003	G	17	9	A	11	10	intronic	Not Applicable	0	0	0	0.003
FANCD2	NM_033084	3	10103635	G	17	10	A	13	7	intronic	Not Applicable	1	0	0	0.002
FANCD2	NM_033084	3	10108710	A	11	11	G	14	2	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10110577	G	18	5	A	13	3	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10111150	T	11	11	C	9	11	intronic	Not Applicable	1	0	0	0.007
FANCD2	NM_033084	3	10113069	G	22	5	T	19	2	silent	p.L1385	1	0	0	1
FANCD2	NM_033084	3	10113189	C	14	14	T	14	4	intronic	Not Applicable	1	0	0	0.002
FANCD2	NM_033084	3	10115017	G	17	2	A	46	9	intronic	Not Applicable	1	0	0	Unknown
FANCD2	NM_033084	3	10115115	A	32	6	G	23	12	intronic	Not Applicable	1	0	0	Unknown
RPN1	NM_002950	3	129823586	C	30	11	T	30	4	intronic	Not Applicable	1	1	0	Unknown
RPN1	NM_002950	3	129826597	T	16	21	C	24	19	intronic	Not Applicable	0	0	0	0.011
RPN1	NM_002950	3	129827889	G	17	4	A	15	18	intronic	Not Applicable	1	1	1	Unknown
RPN1	NM_002950	3	129828904	A	12	8	G	13	6	intronic	Not Applicable	1	1	0	0.003
RPN1	NM_002950	3	129829385	G	16	9	C	24	7	intronic	Not Applicable	0	0	0	0.002
RPN1	NM_002950	3	129829542	T	21	2	C	15	14	silent	p.P141	1	0	0	0.338
RPN1	NM_002950	3	129849416	C	32	6	A	21	1	intronic	Not Applicable	1	0	0	0.005
GMPS	NM_003875	3	157079615	T	64	17	G	0	0	intronic	Not Applicable	1	0	0	Unknown
GMPS	NM_003875	3	157079616	G	71	16	T	0	1	intronic	Not Applicable	1	0	0	Unknown
GMPS	NM_003875	3	157081957	T	14	6	A	35	16	intronic	Not Applicable	1	0	0	Unknown
GMPS	NM_003875	3	157137517	G	50	19	A	0	0	intronic	Not Applicable	1	1	1	0.006
MLF1	ENST00000355893	3	159772999	A	15	9	G	18	11	intronic	Not Applicable	1	0	0	0.522
MLF1	ENST00000355893	3	159781126	G	10	3	A	14	4	intronic	Not Applicable	1	0	0	0.001
MLF1	ENST00000355893	3	159781397	C	14	4	T	17	14	intronic	Not Applicable	1	0	0	Unknown
MLF1	ENST00000355893	3	159781577	C	29	8	G	21	13	intronic	Not Applicable	1	0	0	0.018
MLF1	ENST00000355893	3	159782095	G	22	1	C	34	12	intronic	Not Applicable	1	0	0	Unknown
MLF1	ENST00000312827	3	159790425	T	21	12	A	21	13	intronic	Not Applicable	1	1	1	0.01
MLF1	ENST00000312827	3	159790501	T	40	5	A	29	10	intronic	Not Applicable	1	0	1	0.003
MLF1	ENST00000312827	3	159790582	G	11	6	A	10	4	intronic	Not Applicable	0	0	0	0.368
MLF1	ENST00000312827	3	159792847	G	18	9	A	24	6	intronic	Not Applicable	1	1	0	0.022
MLF1	ENST00000312827	3	159794848	G	39	18	C	0	0	intronic	Not Applicable	1	1	1	0.002
MLF1	ENST00000312827	3	159795900	G	24	4	A	14	6	intronic	Not Applicable	1	1	0	0.039
MLF1	ENST00000312827	3	159805116	G	59	9	A	0	0	intronic	Not Applicable	1	1	0	0.309
EVI1	NM_005241	3	170297793	C	48	8	T	0	0	intronic	Not Applicable	1	1	1	0.001
EVI1	NM_005241	3	170308530	C	44	3	T	0	0	intronic	Not Applicable	1	0	1	0.001
EVI1	NM_005241	3	170308605	C	41	18	T	0	0	intronic	Not Applicable	1	1	1	0.002
EVI1	NM_005241	3	170309575	C	50	18	G	0	0	intronic	Not Applicable	1	1	1	0.001
EVI1	NM_005241	3	170310918	G	44	13	A	0	0	intronic	Not Applicable	1	1	1	0.001
EVI1	NM_005241	3	170311199	T	39	19	C	0	0	intronic	Not Applicable	1	1	1	Unknown
EVI1	NM_005241	3	170311330	T	24	14	A	0	5	intronic	Not Applicable	0	0	0	Unknown
EVI1	NM_005241	3	170314124	C	47	5	G	0	0	intronic	Not Applicable	1	1	1	0.109
EVI1	NM_005241	3	170314801	G	43	11	T	0	0	intronic	Not Applicable	1	1	1	0.007
EVI1	NM_005241	3	170315467	T	44	7	G	0	0	intronic	Not Applicable	1	1	1	Unknown
EVI1	NM_005241	3	170318356	G	46	8	T	23	11	intronic	Not Applicable	0	0	0	0.021
EVI1	NM_005241	3	170319633	T	14	9	C	19	2	intronic	Not Applicable	0	0	0	1
EVI1	NM_005241	3	170320430	T	11	1	C	12	13	intronic	Not Applicable	1	1	1	0.428
EVI1	NM_005241	3	170322305	T	38	13	A	0	0	intronic	Not Applicable	1	1	1	Unknown
EVI1	NM_005241	3	170338327	C	27	0	T	30	0	intronic	Not Applicable	1	1	1	Unknown
MDS1	NM_004991	3	170400125	C	49	10	A	0	0	intronic	Not Applicable	1	1	0	Unknown
MDS1	NM_004991	3	170408288	A	31	10	G	0	0	intronic	Not Applicable	1	1	1	0.002
MDS1	NM_004991	3	170422609	G	40	13	C	0	0	intronic	Not Applicable	1	1	1	0.001
MDS1	NM_004991	3	170428304	G	44	22	A	0	0	intronic	Not Applicable	1	1	1	Unknown
MDS1	NM_004991	3	170431787	C	50	5	G	0	0	intronic	Not Applicable	1	1	0	Unknown
MDS1	NM_004991	3	170432078	A	9	10	G	0	0	intronic	Not Applicable	1	1	1	0.002
MDS1	NM_004991	3	170434306	T	47	21	C	0	0	intronic	Not Applicable	1	1	1	0.975
MDS1	NM_004991	3	170455496	G	65	13	A	0	1	intronic	Not Applicable	1	1	0	0.007
MDS1	NM_004991	3	170459598	T	20	5	G	0	0	intronic	Not Applicable	1	1	1	Unknown
MDS1	NM_004991	3	170466241	G	16	6	A	20	9	intronic	Not Applicable	1	0	0	Unknown
MDS1	NM_004991	3	170466314	A	11	15	C	30	5	intronic	Not Applicable	1	1	1	Unknown
MDS1	NM_004991	3	170487843	C	12	3	A	9	3	intronic	Not Applicable	0	0	0	1
MDS1	NM_004991	3	170516176	G	21	3	A	25	5	intronic	Not Applicable	1	0	0	0.001
MDS1	NM_004991	3	170520634	A	18	7	G	26	8	intronic	Not Applicable	0	1	0	0.001
MDS1	NM_004991	3	170522860	C	25	4	G	28	6	intronic	Not Applicable	0	0	0	0.051
MDS1	NM_004991	3	170562570	T	45	6	C	0	0	intronic	Not Applicable	1	1	1	0.001
MDS1	NM_004991	3	170664276	T	53	6	C	0	0	intronic	Not Applicable	1	0	1	0.003
MDS1	NM_004991	3	170668987	A	56	19	G	0	0	intronic	Not Applicable	1	0	0	Unknown
MDS1	NM_004991	3	170673880	A	52	3	G	0	0	intronic	Not Applicable	1	0	0	0.098
MDS1	NM_004991	3	170674734	C	63	19	T	0	0	intronic	Not Applicable	1	0	1	0.001
MDS1	NM_004991	3	170676331	G	48	12	A	0	0	intronic	Not Applicable	1	0	1	0.001
MDS1	NM_004991	3	170678043	T	43	11	C	0	0	intronic	Not Applicable	1	1	0	0.994
MDS1	NM_004991	3	170679084	T	51	8	A	1	1	intronic	Not Applicable	1	1	0	0.001
MDS1	NM_004991	3	170679816	T	29	9	C	33	10	intronic	Not Applicable	0	1	0	Unknown
MDS1	NM_004991	3	170680027	G	45	18	A	0	0	intronic	Not Applicable	1	1	1	Unknown
MDS1	NM_004991	3	170680718	G	51	13	A	0	1	intronic	Not Applicable	1	1	0	0.002
MDS1	NM_004991	3	170686253	G	42	27	A	0	0	intronic	Not Applicable	1	1	0	0.002
MDS1	NM_004991	3	170686384	G	46	9	A	0	0	intronic	Not Applicable	1	1	1	Unknown
MDS1	NM_004991	3	170696594	C	37	8	T	15	12	intronic	Not Applicable	1	0	0	Unknown
MDS1	NM_004991	3	170705465	C	14	10	T	33	9	intronic	Not Applicable	1	0	0	0.001
MDS1	NM_004991	3	170710254	C	18	4	T	31	4	intronic	Not Applicable	1	0	0	0.001
MDS1	NM_004991	3	170711005	A	18	7	G	13	10	intronic	Not Applicable	1	0	0	0.989
MDS1	NM_004991	3	170715015	T	23	5	C	12	8	intronic	Not Applicable	0	0	0	Unknown
MDS1	NM_004991	3	170721406	A	17	6	G	9	6	intronic	Not Applicable	1	0	0	0.012
MDS1	NM_004991	3	170722928	T	38	8	C	25	9	intronic	Not Applicable	1	0	0	0.012
MDS1	NM_004991	3	170731457	C	12	3	G	19	21	intronic	Not Applicable	1	0	0	0.003
MDS1	NM_004991	3	170736795	C	23	7	G	42	12	intronic	Not Applicable	1	0	0	Unknown
MDS1	NM_004991	3	170752850	G	56	10	A	0	0	intronic	Not Applicable	1	1	0	0.001

MDS1	NM_004991	3	170757271	C	26	9	T	16	5	intronic	Not Applicable	1	0	0	Unknown
MDS1	NM_004991	3	170774867	T	47	11	G	1	0	intronic	Not Applicable	1	1	0	0.998
MDS1	NM_004991	3	170778377	A	14	8	G	42	3	intronic	Not Applicable	0	0	0	Unknown
MDS1	NM_004991	3	170780285	T	34	8	C	14	5	intronic	Not Applicable	1	0	0	Unknown
MDS1	NM_004991	3	170805443	G	17	4	T	10	6	intronic	Not Applicable	1	0	1	Unknown
MDS1	NM_004991	3	170808315	T	25	3	C	16	4	intronic	Not Applicable	1	0	1	0.29
MDS1	NM_004991	3	170809139	G	30	7	C	18	7	intronic	Not Applicable	1	0	0	0.186
MDS1	NM_004991	3	170809826	C	14	1	T	29	2	intronic	Not Applicable	1	0	1	1
MDS1	NM_004991	3	170813565	C	10	6	T	14	5	intronic	Not Applicable	1	0	1	0.793
MDS1	NM_004991	3	170828361	G	24	1	A	40	9	intronic	Not Applicable	1	0	1	0.001
MDS1	NM_004991	3	170830526	T	16	5	C	13	12	intronic	Not Applicable	1	0	1	Unknown
MDS1	NM_004991	3	170834471	T	32	14	C	21	4	intronic	Not Applicable	1	0	1	Unknown
MDS1	NM_004991	3	170835797	G	17	1	A	16	0	intronic	Not Applicable	1	0	1	Unknown
MDS1	NM_004991	3	170835878	T	37	5	C	16	6	intronic	Not Applicable	1	0	0	0.001
MDS1	NM_004991	3	170845822	T	13	3	C	17	13	intronic	Not Applicable	0	0	0	0.002
CHIC2	NM_012110	4	54600709	C	60	16	G	1	0	intronic	Not Applicable	1	1	1	0.04
PDGFRA	NM_006206	4	54834773	C	62	13	T	0	0	intronic	Not Applicable	1	1	1	0.001
PDGFRA	NM_006206	4	54835812	G	49	9	A	0	0	silent	p.P567	1	1	1	0.073
PDGFRA	NM_006206	4	54839204	C	52	4	T	0	0	intronic	Not Applicable	1	1	1	0.634
PDGFRA	NM_006206	4	54843434	A	72	7	G	0	0	intronic	Not Applicable	1	1	1	Unknown
PDGFRA	NM_006206	4	54844264	A	39	19	G	0	0	intronic	Not Applicable	1	1	1	Unknown
PDGFRA	NM_006206	4	54846468	A	82	17	C	0	0	intronic	Not Applicable	1	1	1	0.043
PDGFRA	NM_006206	4	54847652	T	45	11	C	0	0	intronic	Not Applicable	1	1	1	Unknown
PDGFRA	NM_006206	4	54849284	G	46	11	C	0	0	intronic	Not Applicable	1	1	1	0.009
PDGFRA	NM_006206	4	54851157	G	44	11	A	0	0	intronic	Not Applicable	1	1	1	Unknown
PDGFRA	NM_006206	4	54854056	C	40	16	T	0	0	intronic	Not Applicable	1	1	1	0.001
PDGFRA	NM_006206	4	54856011	T	54	14	C	0	0	intronic	Not Applicable	1	1	1	0.001
PDGFRA	NM_006206	4	54856148	C	50	10	T	0	0	silent	p.D1074	1	1	1	0.979
PDGFRA	NM_006206	4	54857707	A	14	11	C	0	0	3_prime_untranslated_region	Not Applicable	1	1	1	0.019
PDGFRA	NM_006206	4	54858583	G	59	18	T	1	0	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown
KIT	NM_000222	4	55219290	G	18	1	C	16	9	intronic	Not Applicable	1	0	1	0.048
KIT	NM_000222	4	55221451	A	9	3	G	9	0	intronic	Not Applicable	1	0	1	Unknown
KIT	NM_000222	4	55221459	G	12	1	A	9	2	intronic	Not Applicable	1	0	1	Unknown
KIT	NM_000222	4	55221822	G	26	4	A	19	8	intronic	Not Applicable	1	0	1	0.001
KIT	NM_000222	4	55224166	C	14	1	G	28	11	intronic	Not Applicable	1	0	1	Unknown
KIT	NM_000222	4	55227873	T	19	4	C	26	10	intronic	Not Applicable	1	0	1	0.002
KIT	NM_000222	4	55261400	C	39	9	A	0	0	intronic	Not Applicable	1	1	1	Unknown
KIT	NM_000222	4	55261957	T	52	14	C	0	0	intronic	Not Applicable	1	1	1	0.007
KIT	NM_000222	4	55261971	G	50	7	A	0	0	intronic	Not Applicable	1	1	1	0.546
KIT	NM_000222	4	55263799	A	60	9	C	3	0	intronic	Not Applicable	1	1	1	Unknown
KIT	NM_000222	4	55276825	C	14	4	T	17	4	intronic	Not Applicable	1	0	1	0.002
CSF1R	NM_005211	5	149413789	G	21	5	T	17	7	3_prime_untranslated_region	Not Applicable	1	0	0	Unknown
CSF1R	NM_005211	5	149413790	A	20	5	G	18	6	3_prime_untranslated_region	Not Applicable	1	0	0	Unknown
CSF1R	NM_005211	5	149415801	C	19	6	G	18	7	silent	p.L845	0	0	0	1
CSF1R	NM_005211	5	149415952	A	26	23	G	22	7	intronic	Not Applicable	1	0	1	0.001
CSF1R	NM_005211	5	149416738	A	23	9	G	17	4	intronic	Not Applicable	1	0	0	Unknown
CSF1R	NM_005211	5	149416879	G	18	15	T	25	9	intronic	Not Applicable	1	1	0	Unknown
CSF1R	NM_005211	5	149417383	G	24	8	C	23	12	intronic	Not Applicable	1	0	1	Unknown
CSF1R	NM_005211	5	149419237	T	17	18	C	8	5	intronic	Not Applicable	1	0	1	Unknown
CSF1R	NM_005211	5	149419781	C	27	3	T	18	10	intronic	Not Applicable	1	0	1	0.073
CSF1R	NM_005211	5	149420916	A	11	9	G	20	5	intronic	Not Applicable	1	0	1	0.003
CSF1R	NM_005211	5	149424340	G	9	9	A	12	9	intronic	Not Applicable	1	0	1	Unknown
CSF1R	NM_005211	5	149426799	A	12	7	C	27	9	intronic	Not Applicable	1	0	1	0.001
CSF1R	NM_005211	5	149427821	G	20	7	A	25	12	intronic	Not Applicable	1	0	1	0.001
CSF1R	NM_005211	5	149436964	A	19	12	C	20	12	intronic	Not Applicable	1	0	0	0.001
CSF1R	NM_005211	5	149436965	A	20	12	T	19	12	intronic	Not Applicable	1	0	0	0.001
CSF1R	NM_005211	5	149437871	A	35	8	G	34	14	silent	p.T242	1	0	1	0.962
CSF1R	NM_005211	5	149438423	C	14	4	G	11	13	intronic	Not Applicable	1	0	1	0.003
CSF1R	NM_005211	5	149438612	C	12	5	T	17	9	intronic	Not Applicable	1	0	1	Unknown
CSF1R	NM_005211	5	149439022	A	12	7	G	9	9	intronic	Not Applicable	1	0	1	0.005
CSF1R	NM_005211	5	149439574	C	14	10	T	15	10	intronic	Not Applicable	1	0	1	Unknown
CSF1R	NM_005211	5	149440746	G	20	2	A	24	16	silent	p.P28	1	0	1	0.543
CSF1R	NM_005211	5	149442105	A	12	7	C	9	11	intronic	Not Applicable	1	0	0	Unknown
CSF1R	NM_005211	5	149442202	G	31	8	A	16	14	intronic	Not Applicable	1	1	1	Unknown
CSF1R	NM_005211	5	149442789	T	15	2	C	16	4	intronic	Not Applicable	1	0	0	Unknown
CSF1R	NM_005211	5	149445684	G	12	6	T	11	3	intronic	Not Applicable	1	1	0	Unknown
CSF1R	NM_005211	5	149445737	G	18	5	C	23	3	intronic	Not Applicable	1	1	0	0.001
CSF1R	NM_005211	5	149447856	A	30	4	G	11	2	intronic	Not Applicable	1	1	0	0.001
CSF1R	NM_005211	5	149460378	A	38	15	G	17	4	intronic	Not Applicable	0	0	0	Unknown
CSF1R	NM_005211	5	149463082	C	17	7	T	22	8	intronic	Not Applicable	1	1	1	0.002
CSF1R	NM_005211	5	149464099	T	29	21	C	37	7	intronic	Not Applicable	1	0	0	Unknown
CSF1R	NM_005211	5	149469303	T	71	9	C	19	4	intronic	Not Applicable	1	1	1	Unknown
CSF1R	NM_005211	5	149469945	A	18	10	G	11	4	intronic	Not Applicable	1	1	1	Unknown
CSF1R	NM_005211	5	149472648	T	17	14	C	12	9	intronic	Not Applicable	1	0	1	Unknown
CSF1R	NM_005211	5	149472740	C	74	13	T	0	0	intronic	Not Applicable	1	1	1	Unknown
PDGFRB	NM_002609	5	149475446	C	13	12	T	22	19	3_prime_untranslated_region	Not Applicable	1	0	1	0.071
PDGFRB	NM_002609	5	149476514	G	21	4	A	22	19	intronic	Not Applicable	1	0	0	Unknown
PDGFRB	NM_002609	5	149477370	C	12	21	T	17	15	splice_region	Not Applicable	1	0	0	0.153
PDGFRB	NM_002609	5	149477865	T	19	6	C	12	11	intronic	Not Applicable	1	0	1	0.002
PDGFRB	NM_002609	5	149479865	C	16	12	T	11	6	silent	p.L867	1	0	1	0.992
PDGFRB	NM_002609	5	149480429	T	17	9	C	22	9	intronic	Not Applicable	1	0	1	Unknown
PDGFRB	NM_002609	5	149481944	C	27	6	A	29	25	intronic	Not Applicable	1	0	1	0.001
PDGFRB	NM_002609	5	149483863	A	29	10	G	13	12	intronic	Not Applicable	1	0	1	0.004
PDGFRB	NM_002609	5	149484351	C	14	12	T	13	5	intronic	Not Applicable	1	0	1	Unknown
PDGFRB	NM_002609	5	149489304	T	30	5	C	29	7	intronic	Not Applicable	1	1	1	0.001
PDGFRB	NM_002609	5	149489463	G	20	10	A	14	6	intronic	Not Applicable	1	1	1	Unknown
PDGFRB	NM_002609	5	149492235	A	16	9	G	29	14	intronic	Not Applicable	1	1	1	Unknown
PDGFRB	NM_002609	5	149492871	C	8	6	T	14	6	intronic	Not Applicable	1	0	0	0.001
PDGFRB	NM_002609	5	149495267	A	16	7	G	23	5	intronic	Not Applicable	1	1	0	Unknown
NPM1	NM_002520	5	170759720	A	57	20	C	2	1	intronic	Not Applicable	1	1	0	0.004
NPM1	NM_002520	5	170759723	G	54	22	A	0	0	intronic	Not Applicable	1	1	0	0.013
NPM1	NM_002520	5	170764517	T	50	6	C	0	0	intronic	Not Applicable	1	1	0	0.001
NPM1	NM_002520	5	170765242	T	47	9	C	0	0	intronic	Not Applicable	1	1	0	0.001
NPM1	NM_002520	5	170765610	G	47	6	A	0	0	intronic	Not Applicable	1	1	0	Unknown
NSD1	NM_022455	5	176510678	A	47	9	G	0	0	intronic	Not Applicable	1	0	0	Unknown
NSD1	NM_022455	5	176530300	A	60	19	C	0	0	intronic	Not Applicable	1	0	1	Unknown
NSD1	NM_022455	5	176531108	C	45	14	T	0	0	intronic	Not Applicable	1	0	1	0.013
NSD1	NM_022455	5	176538658	A	39	15	T	0	0	intronic	Not Applicable	1	1	0	0.015
NSD1	NM_022455	5	176561902	G	39	17	A	0	0	intronic	Not Applicable	1	0	0	0.009
NSD1	NM_022455	5	176566355	T	55	8	C	0	0	intronic	Not Applicable	1	0	1	0.001
NSD1	NM_022455	5	176570182	C	56	17	T	0	0	missense	p.S726P	1	0	1	0.096
NSD1	NM_022455	5	176572946	C	49	12	T	0	0	intronic	Not Applicable	1	0	1	0.002
NSD1	NM_022455	5	176573450	G	43	3	A	0	0	intronic	Not Applicable	1	1	1	0.162
NSD1	NM_022455	5	176578041	A	63	12	C	0	0	intronic	Not Applicable	1	1	1	0.002
NSD1	NM_022455	5	176583847	A	45	18	G	0	0	intronic	Not Applicable	1	1	1	Unknown
NSD1	NM_022455	5	176587843	G	46	9	T	0	0	intronic	Not Applicable	1	0	1	Unknown
NSD1	NM_022455	5	176590672	T	54	13	A	0	0	intronic	Not Applicable	1	0	1	0.002
DEK	NM_003472	6	18334192	G	16	13	C	10	12	intronic	Not Applicable	1	0	0	0.002
DEK	NM_003472	6	18360794	A	8	2	G	10	3	intronic	Not Applicable	0	0	0	Unknown
DEK	NM_003472	6	18361994	T	20	16	A	25	6	intronic	Not Applicable	1	1	1	0.004
DEK	NM_003472	6	18366495	A	46	6	G	33	11	intronic	Not Applicable	1	0	1	Unknown
DEK	NM_003472	6	18370098	C	14	4	T	24	2	intronic	Not Applicable	1	1	0	Unknown
FANCE	NM_021922	6	35528901	T	10	3	C	9	6	intronic	Not Applicable	1	1	1	0.01
FANCE	NM_021922	6	35528945	A	38	15	G	20	8	intronic	Not Applicable	1	1	1	0.001
FANCE	NM_021922	6	35531640	C	21	11	A	19	11	silent	p.P129	1	1	1	0.017
FANCE	NM_021922	6	35532166	G	17	18	A	30	2	intronic	Not Applicable	1	0	0	Unknown
FANCE	NM_021922	6	35533394	G	17	7	A	23	13	intronic	Not Applicable	1	1	1	Unknown
HOXA9	ENST00000354032	7	27171807	G	14	26	A	11	9	intronic	Not Applicable	1	0	1	1
HOXA9	ENST00000354032	7	27172992	C	15	6	G	9	6	intronic	Not Applicable	1	0	0	0.012
HOXA9	ENST00000354032	7	27174026	A	38	5	G	0	0	intronic	Not Applicable	1	1	1	Unknown
HOXA9	ENST00000354032	7	27174543	T	15	11	C	26	13	intronic	Not Applicable	1	0	0	Unknown
HOXA13	NM_000522	7	27203483	T	52	19	C	0	0	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown
TRIM24	NM_015905	7	137798063	A	45	9	C	26	10	intronic	Not Applicable	0	1	0	0.011
TRIM24	NM_015905	7	137807619	A	24	9	G	10	4	intronic	Not Applicable	1	1	0	0.003
TRIM24	NM_015905	7	137807930	G	67	15	A	0	0	intronic	Not Applicable	1	1	1	0.001
TRIM24	NM_015905	7	137813964	A	35	6	G	24	3	intronic	Not Applicable	0	1	0	Unknown
TRIM24	NM_015905	7	137836330	G	16	25	A	26	15	intronic	Not Applicable	0	0	1	0.015
TRIM24	NM_015905	7	137840144	C	38	9	T	38	22	intronic	Not Applicable	1	1	0	Unknown
TRIM24	NM_015905	7	137840794	T	19	9	G	0	0	intronic	Not Applicable	1	0	1	Unknown
TRIM24	NM_015905	7	137845256	T	23	11	C	28	14	intronic	Not Applicable	0	0	0	Unknown
TRIM24	NM_015905	7	137845291	G	25	14	A	0	0	intronic	Not Applicable	1	1	1	0.003
TRIM24	NM_015905	7	137845346	A	27	12	T	47	11	intronic	Not Applicable	1	1	0	0.004
TRIM24	NM_015905	7	137850657	T	44	14	A	0	0	intronic	Not Applicable	1	1	1	Unknown
TRIM24	NM_015905	7	137879942	A	64	29	G	0	0	intronic	Not Applicable	1	1	1	Unknown
TRIM24	NM_015905	7	137880530	A	51	13	G	0	0	intronic	Not Applicable	1	1	1	0.001
TRIM24	NM_015905	7	137884869	A	96	30	G	0	0	intronic	Not Applicable	1	1	1	0.003
TRIM24	NM_015905	7	137889384	A	39	7	G	44	11	intronic	Not Applicable	1	0	1	0.189
TRIM24	NM_015905	7	137899081	T	11	7	C	13	10	intronic	Not Applicable	0	1	0	0.035
TRIM24	NM_015905	7	137915850	G	12	8	A	14	8	silent	p.G863	1	0	1	0.999
WHSC1L1	ENST00000317025	8	38252769	T	19	3	C	23	5	intronic	Not Applicable	1	0	0	Unknown
WHSC1L1	ENST00000317025	8	38252950	A	26	13	G	39	12	intronic	Not Applicable	1	0	0	Unknown
WHSC1L1	ENST00000317025	8	38254569	C	35	1	T	15	4	intronic	Not Applicable	1	0	0	Unknown
WHSC1L1	ENST00000317025	8	38262514	C	11	4	T	17	8	intronic	Not Applicable	1	0	0	0.022
WHSC1L1	ENST00000317025	8	38262697	T	20	12	G	20	11	intronic	Not Applicable	1	0	0	Unknown
WHSC1L1	ENST00000317025	8	38262729	G	15	8	T	27	7	intronic	Not Applicable	1	0	0	0.006
WHSC1L1	ENST00000317025	8	38263002	G	17	6	A	21	4	intronic	Not Applicable	0	0	0	0.002
WHSC1L1	ENST00000317025	8	38266997	T	18	6	C	31	5	intronic	Not Applicable	1	0	0	Unknown
WHSC1L1	ENST00000317025	8	38283444	A	20	7	G	27	13	intronic	Not Applicable	1	0	0	0.002
WHSC1L1	ENST00000317025	8	38295344	G	18	2	T	39	3	intronic	Not Applicable	1	0	0	0.996
WHSC1L1	ENST00000317025	8	38312675	T	27	8	C	13	12	intronic	Not Applicable	1	0	0	0.011
WHSC1L1	ENST00000317025	8	38328360	C	371	292	G	669	438	intronic	Not Applicable	0	0	0	Unknown
WHSC1L1	ENST00000317025	8	38331570	G	11	9	T	16	5	intronic	Not Applicable	1	0	0	Unknown
WHSC1L1	ENST00000317025	8	38331768	C	16	4	T	37	16	intronic	Not Applicable	0	0	0	0.004
WHSC1L1	ENST00000317025	8	38340625	G	24	10	T	24	8	intronic	Not Applicable	1	0	0	0.018
NCOA2	NM_006540	8	71190265	T	44	23	C	0	0	intronic	Not Applicable	1	0	1	0.001
NCOA2	NM_006540	8	71191975	G	8	8	C	13	7	intronic	Not Applicable	1	0	1	0.013
NCOA2	NM_006540	8	71192308	G	69	8	C	24	5	intronic	Not Applicable	1	0	1	Unknown
NCOA2	ENST00000267974	8	71196023	G	37	4	C	11	1	splice_region	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71210121	G	17	8	A	22	14	intronic	Not Applicable	1	1	1	Unknown
NCOA2	NM_006540	8	71233081	T	46	4	A	17	6	intronic	Not Applicable	1	1	1	0.252
NCOA2	NM_006540	8	71233741	C	18	4	A	27	6	intronic	Not Applicable	1	1	1	Unknown
NCOA2	NM_006540	8	71239749	A	28	6	G	15	6	intronic	Not Applicable	1	1	1	Unknown
NCOA2	NM_006540	8	71246007	G	31	9	A	29	5	intronic	Not Applicable	1	1	1	0.002
NCOA2	NM_006540	8	71251284	G	21	5	C	14	18	intronic	Not Applicable	1	1	1	0.001
NCOA2	NM_006540	8	71255994	A	30	6	G	28	5	intronic	Not Applicable	1	1	1	0.005
NCOA2	NM_006540	8	71259595	T	19	2	A	17	9	intronic	Not Applicable	1	1	1	Unknown
NCOA2	NM_006540	8	71260272	C	21	15	G	21	9	intronic	Not Applicable	1	1	1	0.001
NCOA2	NM_006540	8	71276152	G	41	12	C	42	9	intronic	Not Applicable	1	1	1	Unknown
NCOA2	NM_006540	8	71281605	G	20	9	A	24	9	intronic	Not Applicable	1	1	1	0.001
NCOA2	NM_006540	8	71286488	C	14	5	T	18	5	intronic	Not Applicable	1	0	0	0.003
NCOA2	NM_006540	8	71292241	G	9	6	A	14	20	intronic	Not Applicable	1	1	1	0.007
NCOA2	NM_006540	8	71306110	C	17	3	A	10	9	intronic	Not Applicable	1	1	1	Unknown
NCOA2	NM_006540	8	71318054	G	9	2	T	7	4	intronic	Not Applicable	1	1	1	Unknown
NCOA2	NM_006540	8	71333158	T	10	7	C	10	8	intronic	Not Applicable	1	1	1	0.004
NCOA2	NM_006540	8	71346440	C	10	1	T	19	43	intronic	Not Applicable	0	0	0	0.001
NCOA2	NM_006540	8	71358612	A	32	10	C	45	0	intronic	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71362663	T	11	0	C	31	12	intronic	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71366973	A	26	2	C	18	2	intronic	Not Applicable	0	0	1	Unknown
NCOA2	NM_006540	8	71374445	A	29	5	G	21	4	intronic	Not Applicable	1	1	1	Unknown
NCOA2	NM_006540	8	71380914	A	18	8	G	34	5	intronic	Not Applicable	1	0	1	0.005
NCOA2	NM_006540	8	71391931	T	22	2	C	11	10	intronic	Not Applicable	1	0	1	0.001
NCOA2	NM_006540	8	71407373	A	31	4	G	13	9	intronic	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71407844	A	19	7	G	27	2	intronic	Not Applicable	1	0	0	0.001
NCOA2	NM_006540	8	71423539	G	23	5	C	29	6	intronic	Not Applicable	1	0	1	0.863
NCOA2	NM_006540	8	71428532	A	17	8	G	15	7	intronic	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71430183	A	33	5	G	51	4	intronic	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71438863	T	20	4	C	14	3	intronic	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71441140	T	29	4	C	16	4	intronic	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71450398	A	20	18	G	15	6	intronic	Not Applicable	1	0	1	Unknown
NCOA2	NM_006540	8	71465246	G	20	6	C	9	1	intronic	Not Applicable	1	0	0	Unknown
RUNX1T1	NM_175634	8	93047215	A	57	15	G	1	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1T1	NM_175634	8	93049321	T	14	14	A	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1T1	NM_175634	8	93049910	G	54	7	A	0	0	intronic	Not Applicable	1	1	1	Unknown
RUNX1T1	NM_175635	8	93168100	T	44	13	G	1	0	intronic	Not Applicable	1	1	1	0.004
BAALC	ENST00000297574	8	104226003	C	18	8	A	37	10	intronic	Not Applicable	0	1	0	0.002
BAALC	ENST00000297574	8	104226350	A	28	8	G	11	11	intronic	Not Applicable	1	1	0	Unknown
BAALC	ENST00000297574	8	104226707	G	13	7	A	12	5	intronic	Not Applicable	1	1	0	Unknown
BAALC	ENST00000297574	8	104228960	T	23	4	G	10	6	intronic	Not Applicable	1	0	1	0.003
BAALC	ENST00000297574	8	104229073	G	18	4	A	14	12	intronic	Not Applicable	1	0	1	Unknown
BAALC	ENST00000297574	8	104232935	C	31	5	T	13	11	intronic	Not Applicable	1	0	1	Unknown
BAALC	ENST00000297574	8	104235201	T	30	29	A	42	9	intronic	Not Applicable	0	0	0	0.038
BAALC	ENST00000297574	8	104238041	T	34	11	C	24	6	intronic	Not Applicable	1	0	1	0.003
BAALC	ENST00000297574	8	104242458	T	60	19	C	0	0	intronic	Not Applicable	1	1	0	0.015
BAALC	ENST00000297574	8	104249127	T	13	13	A	27	8	intronic	Not Applicable	1	0	0	0.028
BAALC	ENST00000297574	8	104255387	A	14	10	G	21	12	intronic	Not Applicable	1	0	0	0.017

BAALC	ENST00000297574	8	104257144	A	15	10	G	17	6	intronic	Not Applicable	1	0	0	Unknown				
BAALC	ENST00000297574	8	104258298	A	19	6	G	13	21	intronic	Not Applicable	0	1	0	Unknown				
BAALC	ENST00000297574	8	104258954	C	28	6	T	23	7	intronic	Not Applicable	1	0	1	Unknown				
BAALC	ENST00000297574	8	104261710	C	51	4	T	37	4	intronic	Not Applicable	1	0	0	0.001				
BAALC	ENST00000297574	8	104263174	C	23	3	T	31	9	intronic	Not Applicable	1	0	1	0.803				
BAALC	ENST00000297574	8	104263326	A	33	2	G	18	4	intronic	Not Applicable	1	1	1	Unknown				
BAALC	ENST00000297574	8	104264149	G	54	17	A	0	1	intronic	Not Applicable	1	1	1	0.038				
BAALC	ENST00000297574	8	104264688	T	15	4	C	15	15	intronic	Not Applicable	0	0	0	0.044				
BAALC	ENST00000297574	8	104265889	C	43	19	T	0	0	intronic	Not Applicable	1	1	1	0.004				
BAALC	ENST00000297574	8	104265918	C	9	8	G	22	10	intronic	Not Applicable	1	0	0	0.083				
BAALC	ENST00000297574	8	104266092	T	32	9	A	33	10	intronic	Not Applicable	1	0	0	0.003				
BAALC	ENST00000297574	8	104266397	G	39	33	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
BAALC	ENST00000297574	8	104267117	A	45	6	G	0	0	intronic	Not Applicable	1	1	1	Unknown				
BAALC	ENST00000297574	8	104269181	A	25	10	G	28	6	intronic	Not Applicable	1	0	0	Unknown				
BAALC	ENST00000297574	8	104271188	C	27	7	T	15	7	intronic	Not Applicable	0	0	0	0.001				
BAALC	ENST00000297574	8	104274179	G	50	19	A	0	0	intronic	Not Applicable	1	1	1	0.005				
BAALC	ENST00000297574	8	104276965	T	11	11	A	19	6	intronic	Not Applicable	0	0	0	Unknown				
BAALC	ENST00000297574	8	104282862	T	27	12	C	33	11	intronic	Not Applicable	0	0	0	Unknown				
BAALC	ENST00000297574	8	104284078	T	21	3	C	30	7	intronic	Not Applicable	1	0	1	Unknown				
BAALC	ENST00000297574	8	104284642	C	44	22	T	0	0	intronic	Not Applicable	1	1	1	Unknown				
BAALC	ENST00000297574	8	104288611	A	11	10	C	19	8	intronic	Not Applicable	0	0	0	0.007				
BAALC	ENST00000297574	8	104290395	A	20	5	G	27	5	intronic	Not Applicable	1	1	1	Unknown				
BAALC	ENST00000297574	8	104291201	C	14	3	T	8	3	intronic	Not Applicable	1	1	1	0.002				
BAALC	ENST00000297574	8	104291307	T	11	7	G	18	6	intronic	Not Applicable	0	0	0	0.03				
BAALC	ENST00000297574	8	104293282	A	13	12	G	17	4	intronic	Not Applicable	1	0	1	Unknown				
BAALC	ENST00000297574	8	104294712	C	15	9	T	35	9	intronic	Not Applicable	1	0	1	0.002				
BAALC	ENST00000297574	8	104295013	T	39	10	A	0	0	intronic	Not Applicable	1	1	1	0.001				
BAALC	ENST00000297574	8	104296122	G	50	14	A	0	0	intronic	Not Applicable	1	1	1	0.318				
BAALC	ENST00000297574	8	104300157	C	23	7	T	9	16	intronic	Not Applicable	0	0	0	Unknown				
BAALC	ENST00000297574	8	104301213	C	41	10	T	31	7	intronic	Not Applicable	1	0	1	0.025				
BAALC	ENST00000297574	8	104301243	C	77	12	A	0	0	intronic	Not Applicable	1	1	1	0.003				
BAALC	ENST00000297574	8	104307842	A	14	10	C	21	8	intronic	Not Applicable	0	0	0	Unknown				
JAK2	NM_004972	9	4982030	C	44	23	T	0	0	intronic	Not Applicable	0	0	0	0.004				
JAK2	NM_004972	9	4987224	T	47	12	C	0	0	intronic	Not Applicable	1	0	0	Unknown				
JAK2	NM_004972	9	5010529	G	56	28	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
JAK2	NM_004972	9	5011529	T	46	14	C	0	0	intronic	Not Applicable	1	0	0	Unknown				
JAK2	NM_004972	9	5046931	A	42	19	C	0	0	intronic	Not Applicable	1	0	0	0.011				
JAK2	NM_004972	9	5048991	C	32	14	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
JAK2	NM_004972	9	5061049	A	39	7	G	0	0	intronic	Not Applicable	1	1	0	0.001				
JAK2	NM_004972	9	5073173	T	56	15	C	0	0	intronic	Not Applicable	1	1	0	Unknown				
JAK2	NM_004972	9	5077087	T	43	5	C	0	0	intronic	Not Applicable	1	0	0	0.326				
JAK2	NM_004972	9	5084539	A	50	25	G	0	0	intronic	Not Applicable	1	1	0	0.009				
JAK2	NM_004972	9	5086633	T	39	19	A	1	0	intronic	Not Applicable	1	0	0	Unknown				
JAK2	NM_004972	9	5087384	G	39	12	A	0	0	intronic	Not Applicable	1	1	0	1				
JAK2	NM_004972	9	5112261	C	52	14	G	1	0	intronic	Not Applicable	1	0	0	0.055				
CDKN2A	NM_058195	9	21969204	A	44	15	G	0	0	intronic	Not Applicable	1	1	1	0.002				
CDKN2A	NM_058195	9	21970151	G	47	11	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
CDKN2A	NM_058195	9	21980457	T	27	2	C	48	7	intronic	Not Applicable	1	1	0	Unknown				
FANCG	NM_004629	9	35064917	C	39	10	T	34	6	splice_region	Not Applicable	1	0	1	0.324				
FANCG	NM_004629	9	35069361	T	31	13	G	27	4	intronic	Not Applicable	1	0	0	Unknown				
SYK	ENST00000375754	9	92609794	T	42	6	A	0	0	intronic	Not Applicable	1	1	1	0.001				
SYK	ENST00000375754	9	92615106	G	48	17	C	0	0	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375754	9	92615219	T	41	10	C	0	0	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375754	9	92615459	A	39	15	G	0	0	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375754	9	92621003	T	49	11	C	0	0	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375754	9	92626910	T	69	9	C	0	0	intronic	Not Applicable	1	1	1	0.476				
SYK	ENST00000375746	9	92637826	G	12	8	C	16	5	intronic	Not Applicable	1	0	0	0.001				
SYK	ENST00000375746	9	92639867	G	47	13	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
SYK	ENST00000375746	9	92640014	G	35	12	C	48	16	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375746	9	92641189	T	29	3	A	15	17	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375746	9	92641894	C	14	6	T	15	3	intronic	Not Applicable	1	1	1	0.001				
SYK	ENST00000375746	9	92642006	C	26	13	A	16	18	intronic	Not Applicable	1	1	0	Unknown				
SYK	ENST00000375746	9	92642010	A	24	9	C	15	20	intronic	Not Applicable	1	1	0	0.002				
SYK	ENST00000375746	9	92643532	A	39	32	G	45	22	intronic	Not Applicable	1	0	0	Unknown				
SYK	ENST00000375746	9	92644333	A	31	8	G	50	37	intronic	Not Applicable	1	0	0	Unknown				
SYK	ENST00000375746	9	92644831	G	16	11	A	20	12	intronic	Not Applicable	1	0	0	0.432				
SYK	ENST00000375746	9	92645282	G	17	2	A	24	12	intronic	Not Applicable	1	1	0	Unknown				
SYK	ENST00000375746	9	92646497	G	22	11	A	11	8	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375746	9	92648560	A	12	28	C	0	0	intronic	Not Applicable	1	1	1	0.001				
SYK	ENST00000375746	9	92649594	C	24	18	T	30	10	intronic	Not Applicable	1	0	0	Unknown				
SYK	ENST00000375746	9	92650582	T	27	3	C	22	7	intronic	Not Applicable	1	1	1	Unknown				
SYK	ENST00000375746	9	92650905	A	43	17	G	25	16	intronic	Not Applicable	1	0	0	Unknown				
SYK	ENST00000375746	9	92651007	A	16	9	G	21	13	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375746	9	92653372	A	31	11	T	25	5	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375746	9	92655031	G	41	15	A	17	17	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375746	9	92656124	G	17	16	A	25	6	intronic	Not Applicable	1	0	1	0.005				
SYK	ENST00000375746	9	92657072	T	34	6	C	28	10	intronic	Not Applicable	1	1	0	0.002				
SYK	ENST00000375746	9	92657971	C	41	17	G	0	0	intronic	Not Applicable	0	0	0	0.134				
SYK	ENST00000375746	9	92658566	G	54	14	C	0	0	intronic	Not Applicable	1	0	1	Unknown				
SYK	ENST00000375746	9	92667305	T	63	18	C	0	0	intronic	Not Applicable	1	0	1	0.001				
SYK	ENST00000375746	9	92670266	T	45	23	C	0	0	intronic	Not Applicable	1	1	1	Unknown				
SYK	ENST00000375746	9	92682422	G	53	20	A	0	0	intronic	Not Applicable	0	0	0	0.089				
SYK	ENST00000375746	9	92689836	A	54	10	T	0	0	intronic	Not Applicable	1	0	0	0.001				
SYK	ENST00000375746	9	92691706	C	42	16	G	0	0	intronic	Not Applicable	1	1	0	0.002				
SYK	ENST00000375746	9	92692125	T	68	12	A	0	0	intronic	Not Applicable	1	1	0	0.001				
FANCC	NM_000136	9	96906622	G	27	7	A	21	6	intronic	Not Applicable	1	1	1	Unknown				
FANCC	NM_000136	9	96911756	C	18	3	G	27	9	intronic	Not Applicable	1	1	1	Unknown				
FANCC	NM_000136	9	96913256	A	15	12	G	11	15	intronic	Not Applicable	1	1	0	0.001				
FANCC	NM_000136	9	96923753	A	39	9	G	25	12	intronic	Not Applicable	1	1	0	Unknown				
FANCC	NM_000136	9	96976180	G	31	11	A	14	1	intronic	Not Applicable	1	1	1	0.004				
FANCC	NM_000136	9	96980828	T	15	2	C	16	2	intronic	Not Applicable	1	1	1	0.012				
FANCC	NM_000136	9	96980789	T	37	19	C	15	9	intronic	Not Applicable	1	1	1	0.055				
FANCC	NM_000136	9	96986557	T	38	4	C	0	0	intronic	Not Applicable	1	1	1	Unknown				
FANCC	NM_000136	9	96988262	G	15	12	C	26	15	intronic	Not Applicable	1	1	0	0.002				
FANCC	NM_000136	9	96992793	G	11	6	C	14	18	intronic	Not Applicable	1	1	1	Unknown				
FANCC	NM_000136	9	96994256	A	16	11	G	14	17	intronic	Not Applicable	1	0	1	0.002				
FANCC	NM_000136	9	97001836	C	60	15	T	21	7	intronic	Not Applicable	1	1	0	Unknown				
FANCC	NM_000136	9	97006695	G	28	1	A	18	6	intronic	Not Applicable	1	1	1	0.011				
FANCC	NM_000136	9	97009460	C	38	10	A	0	0	intronic	Not Applicable	1	1	1	0.008				
FANCC	NM_000136	9	97012006	C	34	2	T	19	3	intronic	Not Applicable	1	1	1	Unknown				
FANCC	NM_000136	9	97018821	T	13	7	C	31	5	intronic	Not Applicable	1	1	1	Unknown				
FANCC	NM_000136	9	97041874	G	39	2	A	16	4	intronic	Not Applicable	1	1	0	0.025				
FANCC	NM_000136	9	97042257	C	41	30	T	0	0	intronic	Not Applicable	1	1	1	Unknown				
FANCC	NM_000136	9	97063758	A	13	2	C	8	3	intronic	Not Applicable	1	1	1	0.003				
FANCC	NM_000136	9	97100310	G	10	2	A	19	6	intronic	Not Applicable	1	1	0	Unknown				
FANCC	NM_000136	9	97100452	C	18	7	T	17	11	intronic	Not Applicable	1	1	0	0.012				
FANCC	NM_000136	9	97100567	C	16	5	T	19	9	intronic	Not Applicable	1	1	0	Unknown				
FANCC	NM_000136	9	97104350	C	14	6	T	18	8	intronic	Not Applicable	1	1	1	0.001				
FANCC	NM_000136	9	97109801	G	39	17	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
FANCC	NM_000136	9	97111112	G	22	5	A	10	4	intronic	Not Applicable	1	1	0	0.008				
FANCC	NM_000136	9	97111850	C	18	5	T	27	4	intronic	Not Applicable	1	1	0	0.006				
SET	ENST00000372692	9	130494941	T	42	7	C	0	0	intronic	Not Applicable	1	1	1	0.03				
SET	ENST00000372692	9	130494639	C	22	11	T	0	0	intronic	Not Applicable	1	1	1	0.035				
FNBP1	NM_015033	9	131661069	A	59	23	G	0	0	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131663450	A	33	21	G	15	4	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131666137	A	10	6	G	22	10	intronic	Not Applicable	1	0	0	Unknown				
FNBP1	ENST00000372415	9	131669723	A	9	10	T	11	12	3_prime_untranslated_region	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131704203	G	17	8	A	10	4	intronic	Not Applicable	0	1	0	0.001				
FNBP1	NM_015033	9	131706449	C	13	4	T	43	16	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131707161	G	17	11	A	13	7	intronic	Not Applicable	1	1	1	0.02				
FNBP1	NM_015033	9	131711694	G	21	1	A	14	7	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131712140	A	51	7	G	0	0	intronic	Not Applicable	1	1	0	0.475				
FNBP1	NM_015033	9	131712783	C	55	14	T	20	18	intronic	Not Applicable	1	0	1	Unknown				
FNBP1	NM_015033	9	131713515	T	26	8	C	12	9	intronic	Not Applicable	1	1	1	0.011				
FNBP1	NM_015033	9	131718323	A	10	10	G	23	8	intronic	Not Applicable	0	0	0	0.011				
FNBP1	NM_015033	9	131725724	C	40	5	T	1	0	intronic	Not Applicable	1	1	1	0.003				
FNBP1	NM_015033	9	131730458	A	16	5	G	18	3	intronic	Not Applicable	0	0	0	0.011				
FNBP1	NM_015033	9	131741592	G	23	4	A	21	1	intronic	Not Applicable	0	0	0	0.038				
FNBP1	NM_015033	9	131746900	T	20	16	G	30	11	intronic	Not Applicable	0	0	0	0.001				
FNBP1	NM_015033	9	131749060	T	34	10	C	13	10	intronic	Not Applicable	1	0	0	Unknown				
FNBP1	NM_015033	9	131749156	C	48	17	T	0	0	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131752284	T	67	14	C	1	0	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131754888	G	7	6	C	10	4	intronic	Not Applicable	0	0	0	0.061				
FNBP1	NM_015033	9	131758896	C	14	8	G	19	4	intronic	Not Applicable	1	1	0	Unknown				
FNBP1	NM_015033	9	131763032	G	42	10	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131767448	G	27	2	A	44	10	intronic	Not Applicable	1	1	2	Unknown				
FNBP1	NM_015033	9	131768466	T	14	7	C	42	7	intronic	Not Applicable	0	0	0	Unknown				
FNBP1	NM_015033	9	131774030	G	54	6	C	0	0	intronic	Not Applicable	1	1	1	0.849				
FNBP1	NM_015033	9	131776876	C	13	14	T	1	0	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131784700	G	44	15	A	2	0	intronic	Not Applicable	1	0	0	0.003				
FNBP1	NM_015033	9	131785183	T	19	13	C	0	1	intronic	Not Applicable	1	1	1	0.002				
FNBP1	NM_015033	9	131787527	C	57	9	T	0	0	intronic	Not Applicable	1	1	1	0.003				
FNBP1	NM_015033	9	131790972	A	13	6	C	16	8	intronic	Not Applicable	0	0	0	Unknown				
FNBP1	NM_015033	9	131792703	T	73	15	C	0	0	intronic	Not Applicable	1	1	1	0.004				
FNBP1	NM_015033	9	131793355	C	15	13	T	20	13	intronic	Not Applicable	1	1	1	0.016				
FNBP1	NM_015033	9	131795376	G	10	6	A	17	5	intronic	Not Applicable	0	0	0	0.022				
FNBP1	NM_015033	9	131796072	G	45	23	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131796101	T	58	21	C	0	0	intronic	Not Applicable	1	1	1	0.001				
FNBP1	NM_015033	9	131796318	T	64	12	C	0	0	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131801065	T	10	5	A	15	2	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131804972	A	19	6	G	27	6	intronic	Not Applicable	0	0	0	0.681				
FNBP1	NM_015033	9	131813676	C	40	1	T	17	11	intronic	Not Applicable	1	0	0	Unknown				
FNBP1	NM_015033	9	131822940	T	64	12	C	1	0	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131826665	C	13	2	T	20	8	intronic	Not Applicable	0	0	0	0.002				
FNBP1	NM_015033	9	131827349	A	33	5	G	38	7	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131837399	C	12	22	G	12	10	intronic	Not Applicable	1	0	0	Unknown				
FNBP1	NM_015033	9	131843641	G	42	16	C	0	0	intronic	Not Applicable	1	1	1	Unknown				
FNBP1	NM_015033	9	131844317	C	50	17	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
NUP214	ENST00000372280	9	133004762	T	55	12	C	0	0	intronic	Not Applicable	1	1	1	Unknown				
NUP214	ENST00000372280	9	133004893	G	32	5	T	17	5	intronic	Not Applicable	1	0	0	Unknown				
NUP214	ENST00000372280	9	133006070	G	21	21	A	12	3	intronic	Not Applicable	1	0	1	0.001				
NUP214	ENST00000372280	9	133009913	T	38	36	C	1	0	missense	p.P574S	1	1	1	0.535				
NUP214	ENST00000372280	9	133010138	G	39	12	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
NUP214	ENST00000372280	9	133035355	G	32	15	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
NUP214	ENST00000372280	9	133047941	C	46	11	T	0	0	intronic	Not Applicable	1	1	1	0.013				
NUP214	ENST00000372280	9	133068127	A	37	8	T	0	0	intronic	Not Applicable	1	1	1	Unknown				
NUP214	ENST00000372280	9	133090135	A	51	10	G	0	0	intronic	Not Applicable	1	1	1	Unknown				
NUP214	ENST00000372280	9	133095760	G	70	23	A	0	0	intronic	Not Applicable	1	1	1	Unknown				
NOTCH1	ENST00000277541	9	138511999	T	20	5	C	23	2	intronic	Not Applicable	0	0	0	0.054				
NOTCH1	ENST00000277541	9	138521398	G	12	7	C	16	8	intronic	Not Applicable	1	0	1	Unknown				
NOTCH1	ENST00000277541	9	138530245	G	47	23	A	0	0	splice_region	Not Applicable	1	1	1	Unknown				
NOTCH1	ENST00000277541	9	138544103	T	24	16	C	22	8	intronic	Not Applicable	0	0	0	Unknown				
NOTCH1	ENST00000277541	9	138549304	T	23	19	C	29	11	intronic	Not Applicable	0	0	0	0.069				
GATA1	NM_002049	X	48535030	C	14	12	G	10	5	intronic	Not Applicable	0	0	0	Unknown				
GATA1	NM_002049	X	48535454	C	18	3	T	11	7	silent	p.N160	0	0	0	Unknown				
SEPT6	NM_015129	X	118658418	C	32	36	T	28	11	intronic	Not Applicable	1	0	1	Unknown				
SEPT6	NM_015129	X	118658865	T	32	7	C	27	6	intronic	Not Applicable	1	0	0	Unknown				
SEPT6	NM_015129	X	118659386	G	20	18	A	17	9	intronic	Not Applicable	1	0	1	Unknown				
SEPT6	NM_015129	X	118660091	A	20	2	T	21	8	intronic	Not Applicable	1	0	1	Unknown				
SEPT6	NM_015129	X	118660494	G	15	12	A	21	6	intronic	Not Applicable	1	0	1	Unknown				
SEPT6	NM_015129	X	118661718	G	16	6	T	10	6	intronic	Not Applicable	1	1	0	Unknown				
SEPT6	NM_015129	X	118665249	C	33	13	T	17	18	intronic	Not Applicable	0	0	0	Unknown				
SEPT6	NM_015129	X	118672083	T	28	5	A	12	3	intronic	Not Applicable	0	0	0	Unknown				
SEPT6	NM_015129	X	118676445	A	12	15	G	18	11	intronic	Not Applicable	0	0	0	Unknown				
SEPT6	NM_015129	X	118681343	C	32	10	T	14	8	intronic	Not Applicable	0	0	0	Unknown				
SEPT6	NM_015129	X	118684037	G	29	13	A	24	13	intronic	Not Applicable	1	0	0	Unknown				
SEPT6	NM_015129	X	118695458	A	30	6	G	22	10	intronic	Not Applicable	1	0	0	Unknown				
SEPT6	NM_015129	X	118703668	C	10	3	T	18	4	intronic	Not Applicable	1	0	0	Unknown				
ELF4	ENST00000308167	X	129029966	C	24	11	T	36	2	intronic	Not Applicable	1	0	0	Unknown				
ELF4	ENST00000308167	X	129030091	C	30	15	T	16	6	intronic	Not Applicable	1	0	0	Unknown				
ELF4	ENST00000308167	X	129046910	T	15	6	A	13	11	intronic	Not Applicable	1	1	0	Unknown				
ELF4	ENST00000308167	X	129046913	G	16	8	A	14	11	intronic	Not Applicable	1	0	0	Unknown				
ELF4	ENST00000308167	X	129053418	G	13	18	C	16	10	intronic	Not Applicable	1	0	1	Unknown				
ELF4	ENST00000308167	X	129055557	A	18	3	T	32	9	intronic	Not Applicable	1	0	0	Unknown				
ELF4	ENST00000308167	X	129056617	C	21	11	T	12	21	intronic	Not Applicable	1	0	1	Unknown				
DKC1	NM_001363	X	153647790	T	57	37	G	1	0	silent	p.T123	1	0	1	Unknown				
DKC1	NM_001363	X	153658342	A	16	5	G	17	8	3_prime_untranslated_region	Not Applicable	1	0	0	Unknown				

Supplementary Table 5. Cancer susceptibility genes.

ABCB1	5243	BARD1	580	CDC2	983	CYR61	3491	FANCA	2175
ABCB5	340273	BAX	581	CDC73	79577	DAPK1	1612	FANCB	2187
ABCC1	4363	BCAR1	9564	CDH1	999	DAXX	1616	FANCC	2176
ABCC2	1244	BCAR3	8412	CDK2	1017	DCK	1633	FANCD2	2177
ABCC3	8714	BCL2	596	CDK4	1019	DCLRE1A	9937	FANCE	2178
ABCC4	10257	BCL2A1	597	CDK6	1021	DCLRE1B	64858	FANCF	2188
ABCC5	10057	BCL2L1	598	CDK7	1022	DCLRE1C	64421	FANCG	2189
ABCC6	368	BCL2L11	10018	CDKN1A	1026	DDB1	1642	FANCI	55215
ABCG2	9429	BCR	613	CDKN1B	1027	DDB2	1643	FANCL	55120
ABL1	25	BHD	201163	CDKN2A	1029	DHCR24	1718	FANCM	57697
ACACA	31	BID	637	CDKN2B	1030	DIABLO	56616	FAS	355
ACE	1636	BIRC2	329	CDKN2D	1032	DLG5	9231	FASLG	356
ACP5	54	BIRC3	330	CETN2	1069	DMC1	11144	FCGR2A	2212
ADH1B	125	BIRC4	331	CFLAR	8837	DNAJC15	29103	FCGR3A	2214
ADH1C	126	BIRC5	332	CFTR	1080	DNMT1	1786	FCGR3B	2215
ADIPOQ	9370	BIRC7	79444	CHAF1A	10036	DNMT3B	1789	FEN1	2237
ADRB2	154	BLM	641	CHEK1	1111	DPYD	1806	FGF2	2247
ADRB3	155	BMP2	650	CHEK2	11200	DUT	1854	FGFR2	2263
AGT	183	BMPR1A	657	CHUK	1147	E2F1	1869	FGFR3	2261
AHR	196	BNIP3	664	CLDN4	1364	ECGF1	1890	FH	2271
AIP	9049	BRAF	673	CLK2	1196	EGF	1950	FHIT	2272
AKAP13	11214	BRCA1	672	CLU	1191	EGFR	1956	FLT3	2322
AKR1C1	1645	BRCA2	675	COL18A1	80781	EIF4E	1977	FN1	2335
AKR1C3	8644	BRIP1	83990	COMT	1312	EIF4EBP1	1978	FOLH1	2346
AKT1	207	BSG	682	CRABP1	1381	ELA2	1991	FOLR1	2348
AKT2	208	BUB1B	701	CRAC1	338377	ELAC2	60528	FOXO1A	2308
ALDH2	217	C19orf40	91442	CREB1	1385	EME1	146956	FOXO3A	2309
ALKBH2	121642	CA9	768	CREBBP	1387	EME2	197342	FPGS	2356
ALKBH3	221120	CAPN10	11132	CSAG2	728461	ENPP1	5167	FRAP1	2475
ALOX12	239	CARD15	64127	CSE1L	1434	EP300	2033	GCLC	2729
ALOX5	240	CASP1	834	CSF1R	1436	EPHB2	2048	GCNT1	2650
AMACR	23600	CASP10	843	CSNK2A1	1457	EPHX1	2052	GDF15	9518
APAF1	317	CASP3	836	CTLA4	1493	EPO	2056	GH1	2688
APC	324	CASP7	840	CTNNB1	1499	ERBB2	2064	GHRL	51738
APEX1	328	CASP8	841	CXCL12	6387	ERBB3	2065	GNB3	2784
APEX2	27301	CASP9	842	CXCR4	7852	ERBB4	2066	GPC3	2719
APOB	338	CAT	847	CYBA	1535	ERCC1	2067	GPI	2821
APOE	348	CAV1	857	CYLD	1540	ERCC2	2068	GPX1	2876
APP	351	CBS	875	CYP11A1	1583	ERCC3	2071	GSK3B	2932
APTX	54840	CCL2	6347	CYP17A1	1586	ERCC4	2072	GSTA1	2938
AR	367	CCL5	6352	CYP19A1	1588	ERCC5	2073	GSTM1	2944
ARL11	115761	CCND1	595	CYP1A1	1543	ERCC6	2074	GSTM3	2947
ASNS	440	CCND3	896	CYP1A2	1544	ERCC8	1161	GSTO1	9446
ATM	472	CCNE1	898	CYP1B1	1545	ESR1	2099	GSTO2	119391
ATP7B	540	CCNH	902	CYP2A13	1553	ESR2	2100	GSTP1	2950
ATR	545	CCR2	1231	CYP2A6	1548	EXO1	9156	GSTT1	2952
ATRIP	84126	CCR5	1234	CYP2C19	1557	EXT1	2131	GTF2H1	2965
AXIN2	8313	CD14	929	CYP2C9	1559	EXT2	2132	GTF2H2	2966
BACH1	571	CD34	947	CYP2D6	1565	F2	2147	GTF2H3	2967
BAD	572	CD36	948	CYP2E1	1571	F5	2153	GTF2H4	2968
BAG1	573	CD40	958	CYP3A4	1576	FABP2	2169	GTF2H5	404672
BAK1	578	CD44	960	CYP3A5	1577	FADD	8772	H2AFX	3014

Cancer susceptibility genes from PubMed and CENSUS (http://www.sanger.ac.uk/genetics/CGP/Census

Supplementary Table 5. Cancer susceptibility genes.

HDAC1	3065	INS	3630	MKI67	4288	NOTCH1	4851	PRKCB1	5579
HFE	3077	INSR	3643	MLH1	4292	NPM1	4869	PRKCD	5580
HGF	3082	IRF1	3659	MLH3	27030	NQO1	1728	PRKCE	5581
HGS	9146	IRS1	3667	MLL	4297	NR1I2	8856	PRKCI	5584
HIF1A	3091	IRS2	8660	MMP1	4312	NR3C1	2908	PRKDC	5591
HLA-A	3105	ITGA2	3673	MMP13	4322	NR4A1	3164	PRNP	5621
HLA-B	3106	ITGB1	3688	MMP14	4323	NTHL1	4913	PTCH	5727
HLA-C	3107	ITGB3	3690	MMP2	4313	NUDT1	4521	PTEN	5728
HLA-DPB1	3115	JAK2	3717	MMP3	4314	OGG1	4968	PTGS1	5742
HLA-DQA1	3117	JUN	3725	MMP7	4316	P2RX7	5027	PTGS2	5743
HLA-DQB1	3119	KCNQ1OT1	10984	MMP9	4318	PAK1	5058	PTK2	5747
HLA-DRB1	3123	KDR	3791	MMS19	64210	PALB2	79728	PTPN1	5770
HMOX1	3162	KIT	3815	MNAT1	4331	PALLD	23022	PTPN13	5783
HRAS	3265	KLF6	1316	MPG	4350	PARP1	142	PTPRJ	5795
HRPT2	3279	KLK3	354	MPL	4352	PARP2	10038	RAB6C	84084
HSD17B1	3292	KLRK1	22914	MPO	4353	PCNA	5111	RAD1	5810
HSD3B2	3284	KRAS	3845	MRE11A	4361	PDCD8	9131	RAD17	5884
HSPA1B	3304	LAPTM4B	55353	MS	4397	PDGFRA	5156	RAD18	56852
HSPA5	3309	LEP	3952	MSH2	4436	PEBP1	5037	RAD23A	5886
HSPB1	3315	LEPR	3953	MSH3	4437	PER1	5187	RAD23B	5887
HSPD1	3329	LGALS3	3958	MSH4	4438	PGR	5241	RAD50	10111
HTATIP2	10553	LIG1	3978	MSH5	4439	PHB	5245	RAD51	5888
HUS1	3364	LIG3	3980	MSH6	2956	PHOX2B	8929	RAD51C	5889
ICAM1	3383	LIG4	3981	MSR1	4481	PIK3CA	5290	RAD51L1	5890
ID1	3397	LRP1	4035	MTHFR	4524	PIK3CG	5294	RAD51L3	5892
IFNG	3458	LSP1	4046	MTR	4548	PLAU	5328	RAD52	5893
IFNGR1	3459	LTA	4049	MTRR	4552	PML	5371	RAD54B	25788
IGF1	3479	LYN	4067	MUS81	80198	PMS1	5378	RAD54L	8438
IGF1R	3480	MAD2L1	4085	MUTYH	4595	PMS2	5395	RAD9A	5883
IGF2	3481	MAD2L2	10459	MVP	9961	PMS2L3	5387	RAF1	5894
IGF2R	3482	MADD	8567	MX1	4599	PNKP	11284	RALBP1	10928
IGFBP1	3484	MADH4	4089	MYC	4609	POLB	5423	RARA	5914
IGFBP3	3486	MAP2K1	5604	MYCL1	4610	POLD1	5424	RARB	5915
IKBKB	3551	MAP3K1	4214	MYCN	4613	POLE	5426	RASSF1	11186
IL10	3586	MAP3K5	4217	MYH1	4619	POLG	5428	RB1	5925
IL12A	3592	MAPK1	5594	NAT1	9	POLH	5429	RBBP8	5932
IL12B	3593	MAPK14	1432	NAT2	10	POLI	11201	RBL2	5934
IL13	3596	MAPK3	5595	NBS1	4683	POLK	51426	RDM1	201299
IL18	3606	MAPK8	5599	NCOA3	8202	POLL	27343	RECQL	5965
IL1A	3552	MBD4	8930	NCOR2	9612	POLM	27434	RECQL4	9401
IL1B	3553	MBL2	4153	NEIL1	79661	POLN	353497	RECQL5	9400
IL1R1	3554	MC1R	4157	NEIL2	252969	PON1	5444	RELA	5970
IL1RN	3557	MCL1	4170	NEIL3	55247	PPARA	5465	RET	5979
IL2	3558	MDC1	9656	NF1	4763	PPARG	5468	RETN	56729
IL24	11009	MDM2	4193	NF2	4771	PPARGC1A	10891	REV1L	51455
IL4	3565	MEN1	4221	NFE2L2	4780	PPP1R13L	10848	RFC1	5981
IL4R	3566	MET	4233	NFKB1	4790	PPP1R1B	84152	RNASEL	6041
IL6	3569	MGMT	4255	NFKBIA	4792	PRDM2	7799	RPA1	6117
IL6R	3570	MICA	4276	NFKBIL1	4795	PRKAB1	5564	RPA2	6118
IL8	3576	MICB	4277	NME1	4830	PRKACA	5566	RPA3	6119
IL8RA	3577	MIF	4282	NOS2A	4843	PRKAR1A	5573	RPA4	29935
IL8RB	3579	MITF	4286	NOS3	4846	PRKCA	5578	RPS6KA1	6195

Cancer susceptibility genes from PubMed and CENSUS (http://www.sanger.ac.uk/genetics/CGP/Census/)

Supplementary Table 5. Cancer susceptibility genes.

RPS6KB1	6198	THBS1	7057	UGT1A7	54577
RRM1	6240	TIMP1	7076	VDR	7421
RRM2B	50484	TIMP2	7077	VEGF	7422
RUNX1	861	TLR1	7096	VHL	7428
RXRA	6256	TLR10	81793	WRN	7486
SBDS	51119	TLR2	7097	WT1	7490
SDHB	6390	TLR4	7099	WWOX	51741
SDHC	6391	TLR6	10333	XAB2	56949
SDHD	6392	TLR9	54106	XAF1	54739
SERPINE1	5054	TMC6	11322	XBP1	7494
SFN	2810	TNF	7124	XPA	7507
SFTPB	6439	TNFAIP1	7126	XPC	7508
SH2D1A	4068	TNFAIP3	7128	XRCC1	7515
SHBG	6462	TNFRSF10A	8797	XRCC2	7516
SHC1	6464	TNFRSF10B	8795	XRCC3	7517
SHFM1	7979	TNFRSF10C	8794	XRCC4	7518
SHH	6469	TNFRSF10D	8793	XRCC5	7520
SHMT1	6470	TNFRSF11B	4982	XRCC6	2547
SKP2	6502	TNFRSF1A	7132	YBX1	4904
SLC11A1	6556	TNFRSF1B	7133	ZAP70	7535
SLC19A1	6573	TNFSF10	8743	ZBTB16	7704
SLC29A1	2030	TNFSF11	8600	ZNF350	59348
SMAD2	4087	TNFSF13B	10673	ZNRD1	30834
SMAD3	4088	TOP1	7150		
SMARCB1	6598	TOP2A	7153		
SMUG1	23583	TOP2B	7155		
SNAI2	6591	TOP3A	7156		
SOCS1	8651	TOPBP1	11073		
SOCS3	9021	TP53	7157		
SOD1	6647	TP53BP1	7158		
SOD2	6648	TP73	7161		
SP1	6667	TP73L	8626		
SPO11	23626	TRAF1	7185		
SPP1	6696	TREX1	11277		
SRC	6714	TSC1	7248		
SRD5A2	6716	TSC2	7249		
SRI	6717	TSG101	7251		
STAT1	6772	TSHR	7253		
STAT3	6774	TSPY1	7258		
STK11	6794	TTK	7272		
STK6	6790	TUBB	203068		
SUFU	51684	TUBB3	10381		
SULT1A1	6817	TWIST1	7291		
TCEAL1	9338	TXN	7295		
TCF1	6927	TYMS	7298		
TDG	6996	UBE2A	7319		
TDP1	55775	UBE2B	7320		
TERT	7015	UBE2N	7334		
TGFB1	7040	UBE2V2	7336		
TGFBR1	7046	UGCG	7357		
TGFBR2	7048	UGT1A1	54658		
TGM2	7052	UGT1A6	54578		

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Supplementary Table 6. Validated germline non-synonymous variants in cancer susceptibility genes.

Gene_name	Chromosome	dbSNP(0:no; 1:yes)	Start_position (B36)	Variant_allele	Reference_allele	Ensembl_transcript_id	Variant_type	Amino_acid_change	Polyphen_prediction	Watson or Venter?		Conservation	OMIM
ABCB5	7	0	20734602	T	A	ENST00000382055	missense	p.I530L	NULL		0	0.804	
ABCC1	16	0	16049580	T	G	NM_004996	missense	p.R433S	NULL		0	0.972	
ABCC6	16	1	16159100	T	C	NM_001171	missense	p.R1268Q	NULL	VENTER		0.992	*603234.0003 and *603234.0011
BRCA2	13	1	31804729	C	A	NM_000059	missense	p.N372H	NULL		0	0.004	600185.0013
CFTR	7	1	116986769	A	G	NM_000492	missense	p.V470M	NULL		0	1	*602421.0023
COL18A1	21	0	45735616	G	C	ENST00000359759	missense	p.P1122R	NULL		0	0.718	
CYP19A1	15	0	49291948	A	C	NM_000103	missense	p.R375L	NULL		0	1	
DLG5	10	1	79286611	C	T	ENST00000372392	missense	p.Q30R	NULL	VENTER/WATSON		0.268	*604090.0001
DPYD	1	1	98121473	A	G	ENST00000370192	missense	p.R29C	NULL	VENTER/WATSON		0.887	274270.0004
ELAC2	17	1	12855734	A	G	NM_018127	missense	p.S217L	NULL		0	0.004	*605367.0001
ERCC6	10	0	50410617	A	G	NM_000124	missense	p.R134W	NULL		0	0.873	
FLT3	13	0	27524716	T	C	ENST00000380982	missense	p.V194M	NULL		0	0.486	
HGS	17	0	77261521	G	C	ENST00000329138	missense	p.T7S	NULL		0	1	
HLA-C	6	0	31345103	C	T	ENST00000376235	missense	p.T363A	NULL	VENTER		NULL	
HLA-C	6	0	31346238	T	G	ENST00000376235	missense	p.P208H	NULL	VENTER		0.25	
IGFBP3	7	0	45920990	A	G	NM_001013398	missense	p.T283I	NULL		0	0.157	
IL1RN	2	0	113606755	A	G	NM_173841	missense	p.A127T	NULL		0	0.894	
IL24	1	0	205142944	G	T	ENST00000367095	missense	p.L181V	NULL		0	0.638	
LEPR	1	1	65809029	G	A	NM_002303	missense	p.K109R	NULL	VENTER		0.989	*601007.0004
LEPR	1	1	65831101	G	A	NM_002303	missense	p.Q223R	NULL	VENTER/WATSON		0.998	*601007.0003
MC1R	16	1	88513345	T	G	ENST00000304984	missense	p.V60L	NULL	WATSON		1	*155555.0006
MC1R	16	1	88513441	A	G	ENST00000304984	missense	p.V92M	NULL		0	0.997	*155555.0002
MCL1	1	0	148817589	G	T	NM_021960	missense	p.M231L	NULL		0	1	
MTHFR	1	1	11777063	G	T	ENST00000376583	missense	p.E470A	NULL	WATSON		0.993	607093.0004
MYH1	17	0	10351978	T	C	NM_005963	missense	p.G640S	NULL		0	0.988	
PALB2	16	0	23545216	A	G	NM_024675	missense	p.P864S	NULL		0	0.998	
PLAU	10	1	75343107	C	T	NM_002658	missense	p.L141P	NULL	VENTER/WATSON		0.017	*191840.0001
PON1	7	1	94775382	C	T	NM_000446	missense	p.Q192R	NULL	VENTER/WATSON		NULL	168820.0001
SDHD	11	1	111462875	A	G	NM_003002	missense	p.G12S	NULL		0	0.239	*602690.0011
TGFBR1	9	0	100934683	G	A	NM_004612	missense	p.I139V	NULL		0	1	
TP53	17	1	7520197	C	G	NM_000546	missense	p.P72R	NULL	VENTER/WATSON		0.752	*191170.0005
TRAF1	9	0	122715716	G	A	NM_005658	missense	p.M139T	NULL		0	0.034	
WRN	8	0	31124149	T	C	NM_000553	missense	p.S1141L	NULL		0	0.001	