

Supplementary materials and methods (online only)

Signatures of Tumour Immunity Distinguish Asian and Non-Asian Gastric Adenocarcinomas

Contents

Supplementary materials and methods:	4
Datasets	4
Data pre-processing.....	4
Microarray analysis	5
RUV-4 methodology.....	5
RUV-4 simulations.....	6
Assessment of RUV-4 methodology.....	6
Pathway analyses comparing “Asian” versus “non-Asian” GCs.....	7
Immunohistochemistry assessments.....	7
EBV and MMR assessments	8
Supplementary Table 1. Dataset information	9
Supplementary Table 2. List of housekeeping human genes derived from the article "Human Housekeeping genes are compact," published in Eisenberg E. and Levanon E.Y. (2003) Trends in Genetics 19: 362-365.....	10
Supplementary Table 3. Description of GSEA genesets.....	25
Supplementary Table 4. Differentially expressed genes derived from running RUV-4 (Affymetrix & non-Affymetrix platform datasets)	33
Affymetrix platform cohorts	33
non-Affymetrix platform cohorts.....	148
Supplementary Table 5. Major pathway "inflammatory disease" and its sub-pathways (IPA results)	263
Supplementary Table 6. Top 20 Curated genesets (C2-MSigDB) from GSEA ranked by normalised enrichment score (NES) for Affymetrix & non-Affymetrix platform datasets	266
Supplementary Table 7. Top 20 Immunological genesets (C7-MSigDB) from GSEA on RUV-4 results for all Affymetrix platform cohorts ranked by normalised enrichment score (NES).....	270
Supplementary Table 8. MSigDB C7 T-cell signature genesets enriched in Stage-I meta-analysis	272
Supplementary Table 9. Clinical characteristics of immunohistochemistry study cohorts	273
Supplementary Table 10. Assessment of immune markers between Caucasian (total n = 446) and Japanese cohorts (total n = 219).....	274
Supplementary Table 11. Generalized linear model of Overall survival time against CD68/CD3 ratio and covariates significantly associated with survival	275
Supplementary Table 12. Restricted Mean Survival Time (RMST) at 1-year (12-months), 5-year (60-months) and 10-year (120-months) intervals	277
Supplementary Table 13. Correlation [†] of immune markers with other clinicopathologic factors	278

Supplementary Table 14. Clinical characteristics of original cohorts from which immunohistochemical study cohorts are derived	279
Supplementary Table 15. Top 20 Curated genesets (C6-MSigDB) from GSEA (before & after RUV-4) ranked by normalised enrichment score (NES)	280
Supplementary Table 16. Assessment of Ki-67 marker between Caucasian and Japanese cohorts.....	284
Supplementary Figure 1.....	285
Supplementary Figure 2.....	286
Supplementary Figure 3.....	287
Supplementary Figure 4.....	288
Supplementary Figure 5.....	289
Supplementary Figure 6.....	290
Supplementary Figure 7.....	291
Supplementary Figure 8.....	292
Supplementary Figure 9.....	293
Supplementary Figure 10.....	294
Supplementary Figure 11.....	295
Supplementary Figure 12.....	296
Supplementary Figure 13.....	297
Supplementary Figure 14.....	298
References	299

Supplementary materials and methods:

Datasets

Microarray datasets: 9 independent GC microarray datasets profiled on Affymetrix, Illumina and other custom platforms were obtained either from the National Centre for Biotechnology Information (NCBI) Gene Expression Omnibus or from collaborators (Supplementary Table 1). After pre-processing, a total of 1,016 tumour expression arrays - six from Asian geographic localities (i.e. HK_cDNA, Korea_SY, SamsungMC, SGset1, SGset2, YGC; n = 890), and three from non-Asian localities (i.e. AMS_cDNA, AU_affy, LEEDS; n = 126) were available for sample classification and downstream data analyses. For the purpose of comparisons between Affymetrix and non-Affymetrix datasets, only genes found across all platforms were selected for all downstream analyses.

Tissue array datasets: For the Japanese GC cohort, patients (n = 253) were selected from the database of the Kanagawa Cancer Centre, Department of Gastrointestinal Surgery, Yokohama, Japan. As these patients form part of another study investigating S1-therapy versus surgery, patients were pre-selected for stage (i.e. only stage II/III patients included). One stage I patient was included erroneously in the cohort and is included in the current study. Survival data were obtained from hospital records or from the city registry system. Supplementary Table 14 shows summary of patient clinical characteristics. For immunohistochemistry (IHC) assessments, 219 patient samples with CK staining data were selected from within this Japanese cohort so as to ensure selection of cases where we can control for difference in tumour content which may affect the amount of immune infiltration. The mean (range) age of the Japanese IHC cohort was 63.7 years (35 to 85 years). Ninety-two (42.0%) patients were treated by surgery only, while the remaining 127 (58.0%) patients were treated by both surgery and chemotherapy. For summary of Japanese IHC patient cohort demographics and clinicopathological data see Supplementary Table 9. Median follow-up time after surgery was 38.7 months. 78 patients had died by the end of follow-up period. No patients were lost to follow-up. For the Caucasian GC cohort, patients (n = 906) were selected from the database of Leeds Institute for Molecular Medicine, St James's University Hospital, Leeds, United Kingdom. Patient survival data were obtained from hospital records (see Supplementary Table 11 for summary of patient clinicopathological characteristics). For IHC assessments, 446 patient samples were selected at random from within this Caucasian cohort. The mean (range) age of the Caucasian IHC cohort was 67.3 years (13.5 to 96.0 years). Four hundred and forty (98.7%) patients were treated by surgery only, while the remaining 6 (1.4%) patients were treated by both surgery and chemotherapy. For summary of Caucasian IHC cohort patient demographics and clinicopathological data see Supplementary Table 9. Median follow-up time after surgery was 22.7 months. 312 patients had died by the end of follow-up period.

Data pre-processing

For Affymetrix raw .CEL files, pre-processing was performed using the 'affyPLM' R package. This involved fitting a probe-level model on the data, assessing relative log expression (RLE) values, and normalizing unscaled standard errors (NUSE) for all the arrays. Outliers (i.e. those with RLE inter-quartile range greater than median \pm 2 median absolute deviation and high NUSE values) were excluded prior to further downstream analyses. The raw expression values were normalized using the robust multi-array average algorithm in the 'affy' R package and log₂ transformed [1]. Summarization of multiple probes mapping to the same gene was performed by computing the median log₂ expression of the probes. For custom cDNA microarrays, partial raw expression data from summarized dual-channel datasets (e.g. HK_cDNA and Korea_SY) were log₂ transformed, median centred and scale normalized; while full raw expression data from other dual-channel datasets (e.g. AMS_cDNA) were log₂ transformed, Lowess normalized, median centred, scale normalized and summarized. Missing values were imputed using a nearest neighbour averaging method in the 'impute' R package. Other datasets (e.g. YGC_MD.Anderson, SamsungMC) were received in normalized form from collaborators. For these data sets, only summarization of multiple probes mapping to the same gene was performed. All pre-processing steps were conducted within the statistical computing language R environment version 2.15 (<http://www.r-project.org>). Prior to downstream RUV-4 adjustment and pathway analyses, all samples with known prior adjuvant treatment were removed and a common set of genes across platforms were used.

Microarray analysis

Due to technical variation across different microarray cohorts, gene expression measurements are often influenced not only by biological factors of interest (e.g. geographic locality), but also by technical factors – including known/observed unwanted factors (e.g. batch of hybridization), and unknown/unobserved unwanted factors (e.g. RNA degradation). We used RUV-4[2] (a new method similar to RUV-2[3]) to reduce the impact of these unwanted factors (detailed in supplementary methods section on “*RUV-4 methodology*”; Supplementary Figures 1 and 2). Briefly, RUV-4 uses “negative control genes” (genes assumed to be uninfluenced by the biological factor of interest) to help identify the unwanted factors, which are then incorporated into a standard linear regression. In this study, housekeeping genes were used as controls (Supplementary Table 2). However, RUV-4 is distinct from standard normalization methods using housekeeping genes, where gene expression values are adjusted using weights derived from differences in housekeeping gene levels[2]. Specifically, to identify differentially expressed genes, RUV-4 fits a linear model on the expression data, accounting for known and unknown technical factors identified. In the process, two-group comparisons using empirical Bayes moderated t-statistics[4] are made (e.g. between “Asian” and “non-Asian” cohorts). Multiple hypothesis testing corrections were achieved using the Benjamini and Hochberg algorithm. Genes with adjusted $p < 0.05$ were considered to be differentially expressed. Ingenuity Pathway Analysis (IPA) and Gene-Set-Enrichment-Analysis (GSEA) was performed (detailed in supplementary methods section on “*Pathway analyses comparing “Asian” versus “non-Asian” GCs*”) to identify expression modules and pathways distinct to Asian and non-Asian GCs. All top-ranked genesets were manually curated to confirm their accurate functional and pathway categorizations, and are presented in Supplementary Table 3. For this study, GSEA was used largely for exploratory analyses, and instead of applying a stringent FDR cut-off, we chose to analyze the top 10 genesets (ranked by normalized enrichment score) that were a) associated with each of the localities and also b) associated with low nominal p-values.

RUV-4 methodology

RUV-4[2](A method similar to RUV-2[3]) was used to correct for unwanted variation in the expression data. Both RUV-2 and RUV-4 have been shown to perform favourably compared to similar methods[2, 3], such as ComBat[5] and other existing linear-regression-based methods[6, 7, 8, 9, 10]. We chose to use RUV-4 in our analysis instead of RUV-2 because RUV-2 performs very poorly in situations in which there is total confounding between the unwanted factors and the factor of interest. In our analysis, the factor of interest (locality) is indeed totally confounded with study.

RUV-4 is based on the model:

$$Y_{m \times n} = X_{m \times p} \beta_{p \times n} + Z_{m \times q} \gamma_{q \times n} + W_{m \times k} \alpha_{k \times n} + \varepsilon_{m \times n}$$

where

- Y is a matrix containing the gene expression data with m arrays (rows) and n genes (columns)
- X is a matrix containing the known factor(s) of interest
- Z is a matrix containing observed covariates. In our case, Z is just an intercept term, and $q = 1$.
- W is a matrix containing unknown (or unobserved) covariates (i.e. unwanted variation)
- β , γ , and α are unobserved coefficients that determine the effect of each factor (X, Z and W respectively) on each gene’s expression value.
- ε is an error term.

RUV-4 uses ‘control genes’ (genes that are assumed not to be influenced by the factor of interest, X) to find estimates for W and α . All analyses were performed in R (version 2.15). The control genes used were housekeeping genes shown in Supplementary Table 2.

The algorithm for the RUV-4 method can be summarized as follows:

Step

1. Fit and remove X and Z (i.e. regress Y onto X and Z and retain the residuals).
2. Perform a factor analysis on the residuals from step 1 to get a “partial” estimate of W and α . Only the component of W orthogonal to X and Z is properly estimated in this step.
3. Adjust the estimate for W (step 2) by using ‘control genes’ to estimate the correlation between X and W.
4. Regress Y onto X, Z, and the “adjusted estimate of W” (step 3) to estimate β .

For mathematical details refer to the technical report at <http://statistics.berkeley.edu/tech-reports/820>.

RUV-4 simulations

The goal of the simulations was to generate simulated data similar to that of the real microarray data, but in which “truth” was known, so that we could calculate the signal-to-noise ratio both with and without adjustment by RUV-4. We generated 9 datasets (each meant to mimic one of the 9 real datasets), each according to the model:

$$Y_{m \times n} = X_{m \times p} \beta_{p \times n} + Z_{m \times q} \gamma_{q \times n} + W_{m \times k} \alpha_{k \times n} + \epsilon_{m \times n}$$

where

- m is chosen to match that of the corresponding real dataset, and $n = 4700$
- X is a m by 1 matrix whose entries are all 0 for non-Asian datasets, and all 1 for Asian datasets.
- β is a 1 by n matrix whose entries are independent and normally distributed. Note that the same β is used for all 9 datasets.
- Z is a m by 1 matrix of all 1s
- γ is a 1 by n matrix whose entries are the gene means of the corresponding real dataset.
- W is a m by 20 matrix whose entries are independent standard normal.
- α is a 20 by n matrix whose entries are independent and normally distributed. Each row of α has a different variance. The variances were chosen to match those of the corresponding real dataset (as approximated using the first 20 singular values of the real dataset).
- ϵ is a m by n matrix whose entries are independent and normally distributed. The variance of each gene was chosen to match that estimated in the corresponding real dataset.

We then combined the 4 simulated “affy” datasets and the 5 simulated “non-affy” datasets and performed differential expression analyses to estimate β on both datasets, both with and without RUV-4. To estimate the noise level, we calculated the RMS error of the estimate of β (by comparing the estimate to the “true” β in the simulation), and to measure the amount of signal present in the estimate of β , we regressed the estimate of β onto the true β . We then calculated the signal-to-noise ratio. We repeated this entire process 50 times, and averaged the results.

Assessment of RUV-4 methodology

RUV-4 was employed on the Affymetrix datasets. To verify that the RUV-4 adjustment of the data was reasonable, a pre-determined list of differentially expressed genes (similar in family or identical to published genes) between gastric tumours from Eastern and Western populations[11] was used to compare the current data before and after RUV-4 adjustment. Comparing the logarithmic fold-change values of these genes, we found them to be more consistently up-regulated (or down-regulated) in Asian GCs (similarly for non-Asian GCs) after RUV-4, as compared to the values obtained prior to RUV-4 adjustment (Supplementary Figure 1). To further assess the RUV-4 methodology, GSEA was performed on the data, using MSigDB C6 (oncogenic signatures) genesets, before and after RUV-4 adjustment; the rationale of using C6 genesets was because the datasets were of cancer origin. By doing so, we found KRAS genesets to be more significantly enriched in non-Asian GC tumours when the analysis was performed on the RUV-4 adjusted data compared to that performed on the unadjusted data (Supplementary Table 14). As KRAS is involved primarily in the regulation of cell division, in cancer, oncogenic forms of KRAS can result in massive cell proliferation[12, 13]. To assess if proliferation was also enriched in non-Asian GC tumours,

we assessed key genes known to be involved in the cell-cycle (e.g. MCM proteins, cdc6, Ki-67, PCNA, cyclins and CDKs[14, 15, 16] . As shown in Supplementary Figure 2A, prior to RUV-4 adjustment, most of the proliferative genes were up-regulated in Asian compared to non-Asian tumours; after RUV-4 adjustment, the opposite was observed. Subsequent IHC staining using a proliferative marker (Ki-67) on both the Japanese and Caucasian cohorts also showed significantly higher levels of staining in the non-Asian (Caucasian) compared to the Asian (Japanese) GC tumours (Supplementary Figure 2B; Supplementary Table 15). However, since Ki-67 was found to be downregulated in the expression data after RUV-4 adjustment, the IHC results also imply that residual confounding between “study” and “locality” was probably present in the data. This is an issue with retrospective datasets, where there is no control over the design of the original study. Nonetheless, we show that on a broader disease-pathway level, RUV-4 is able to give us biological signals relevant to the examined datasets.

Pathway analyses comparing “Asian” versus “non-Asian” GCs

Ingenuity Pathway Analysis (IPA): The “Core Analysis” function in IPA (Ingenuity System Inc, USA) (<http://www.ingenuity.com/>) was used to analyze differentially expressed genes between “Asian” and “non-Asian” GCs (Supplementary Table 2). The reference set used for interrogation included only genes in the Ingenuity Knowledge Base. Both up- and down-regulated genes were selected based on a threshold p-value of 0.05 derived from previous differential expression analysis. Generated networks were ordered by a score meaning significance, while the significance of pathways was determined by the Fisher Exact test p-value. The threshold significance level used to identify enriched pathways/ functions was $p < 0.05$.

Gene-Set-Enrichment-Analysis (GSEA): A ranked list of genes differentially expressed between “Asian” and “non-Asian” GCs (Supplementary Table 2) was uploaded to the Gene Set Enrichment Analysis (GSEA) software[17]. The list was then interrogated against gene-sets from MSigDB version 4, including C2 (133 gene-sets), C6 (189 gene-sets) and C7 (1910 gene-sets). These gene-sets corresponded to “curated” (based on online pathway databases, pubmed publications, and expert knowledge), “oncogenic signatures” (defined from cancer perturbation microarray data), and “immunologic signatures” (defined from immunologic study microarray data) gene-sets respectively. Computation of enrichment of gene-sets was based on the Kolmogorov-Smirnov statistic [17]. Given the lack of coherence in most expression datasets and the relatively small number of gene sets being analyzed, using a stringent FDR cut-off may lead one to overlook potentially interesting results. Hence, we have chosen to look at the top 10 genesets (ranked by normalized enrichment score) associated with the data from each of the localities. One of the criteria for exclusion is when a geneset has a high nominal p-value ($p > 0.05$), this suggests that the signal for that geneset is absent in the data. When a top gene set has a small nominal p value and a high FDR value, it could be because the biological signal is subtle, or the gene sets do not represent the biology perfectly. This would generally be the case in our current study since we are interrogating expression data from heterogeneous primary tissue.

Immunohistochemistry assessments

Slides from resection specimens were reviewed and a block with the highest tumour cell density was selected and marked for tissue microarray (TMA) construction. Samples from the leading edge were avoided as tumour cell density was usually lower in that area. Two 1.5mm diameter cores were sampled at random from the GC and one from matched non-neoplastic stomach mucosa. 4 μ m sections were cut from each TMA block, dried overnight and coated with a blank paraffin section before storage at 4 degrees Celsius until used. To ensure that immune cell infiltration studies could still be performed on these TMAs, we have previously assessed if differences exist between immune cell density measured from the whole tumour area, tumour centre, or invasive edge.[18] Generally, we did not observe any significant difference for most immune markers examined. Immunohistochemistry (IHC) including antigen-retrieval, blocking of endogenous peroxidase and endogenous biotin was carried out as previously described by Grabsch *et al* (2010)[19] using a streptavidin-biotin detection system (DakoREALTM Kit, Glostrup, Denmark) and 3,3'-Diaminobenzidine (DAB) according to the manufacturer’s instructions.. The primary antibodies used were mouse monoclonal antibodies against CD66b (1:200, clone G10F5, BD pharmigen), CD68 (1:200, clone PG-M1, DakoCytomation), CD45 (1:200, clone 2B11+PD7/26, DakoCytomation), CD3 (1:50, clone F7.2.38,

DakoCytomation), CD8 (1:200, clone C8/144B, DakoCytomation), FOXP3 (1:100, clone 236A/E7, Abcam), CD45RO (1:300, clone UCHL1, DakoCytomation) and cytokeratin (CK) (1:100, clone AE1/AE3, DakoCytomation). Antibodies were diluted with antibody diluent (Zymed Laboratories) and incubated either overnight at 4 degrees Celsius or for an hour at 37 degrees Celsius.. Immune cell markers used were: CD66b (neutrophils), CD68 (pan-macrophages), CD45 (pan-leucocytes), CD3 (T cells), CD8 (cytotoxic T cells), CD45RO (memory/activated T cells), FOXP3 (T regulatory cells) and Ki-67 (cell proliferation). Stained slides were scanned at x40 magnification using an Aperio XT digital slide scanner at Leeds Institute of Cancer Studies and Pathology and subjected to automated image analysis to detect and quantify immunoreactivity. An in-house developed software system, TMAi[20] was used to discriminate brown (immunopositive) pixels, blue (immunonegative) pixels and white (empty space) pixels. All cores were reviewed after the image analysis process by a senior GI histopathologist (HG) to confirm that (a) the detection of the brown DAB staining had been performed accurately by the software and (b) to exclude all cores which contained tumour cells as well as non-neoplastic epithelial cells, did not contain tumour at all or suffered from artefacts. The percentage immunoreactivity (Positive pixels/(positive pixels +negative pixels)*100) from all available cores per case was averaged and used as a surrogate for the extent of immune cell infiltration. Finally, both unadjusted and tumour-content-adjusted IHC values are presented in Supplementary Table 5. Tumour-content-adjustment was performed by weighting raw values using CK staining values. Wilcoxon Mann-Whitney test was used on both unadjusted and adjusted median values to test if the presence of a particular marker is different between GCs from the Japanese and Caucasian cohorts. Results were similar in both cases. We report p-values for tumour-content-adjusted data. The rationale for adjusting for tumour content is to control for difference in tumour content, which may affect the amount of immune infiltration. The level of significance was taken at $p < 0.05$.

EBV and MMR assessments

We investigated whether the immune differences between Asian and non-Asian GCs might be due to differences in Epstein-Barr virus (EBV), as 10% of GCs are caused by EBV and EBV-positive GCs are known to be lymphocyte-rich[21, 22]. T cells (CD8+ and CD4+) may also play an important role in EBV control[23]. We performed in situ hybridization for EBV on the Japanese (n = 247) and Caucasian (n = 805) cohorts. Levels of EBV positivity were very low and not significantly different between the cohorts (Japanese: 5% EBV positivity; Caucasian: 2% EBV positivity; Chi-square test $p > 0.05$; Supplementary Figure 10). We also measured DNA mismatch repair (MMR) status in both cohorts, as MMR-positive GCs have also been reported to have increased numbers of intra-tumour lymphocytes[21, 24]. However, there was also no significant difference in MMR status between the Japanese (n = 22/247; 9%) and Caucasian (n = 25/264; 9%) cohorts (Chi-square test $p > 0.05$; Supplementary Figure 11).

Supplementary Table 1. Dataset information

Dataset	Research centre	Platform	#Features	#Samples (before pre-processing)	#Samples (after pre-processing + exclusion(s)*)	#Unique Genes	Pubmed ID (Source)
AU_affy	Peter MacCullum Cancer Centre, Melbourne, Australia	Affymetrix Human U133 Plus 2.0	54,675	70	68	21,050	PMID:22735568 (GSE35809)
SGset1	National Cancer Centre Singapore, Singapore	Affymetrix Human U133 Plus 2.0	54,675	200	152	21,050	PMID:22735568 (GSE15459)
SGset2	National Cancer Centre, Singapore, Singapore	Affymetrix Human U133 Plus 2.0	54,675	58	55	21,050	PMID: 23684942 (GSE34942)
HK_cDNA	Queen Mary Hospital, Hong Kong	Custom cDNA (dual-channel summarized)	42,988	90	90	13,975	PMID: 12925757 (GSE2680)
AMS_cDNA	VU University Medical Centre, Amsterdam, The Netherlands	Custom cDNA (dual-channel)	29,903	34	34	17,933	Unpublished (GSE37023)
Korea_SY	Yonsei Cancer Centre, Seoul Korea	Custom cDNA (dual-channel summarized)	13,421	109	96	8,214	unpublished
SamsungMC	Samsung Medical Centre, South Korea	Whole Genome DASL assay	17,418	432	432	13,510	PMID: 24598828 (from collaborator)
LEEDS	Leeds Institute for Molecular Medicine, St James's University Hospital, Leeds, United Kingdom	Affymetrix Human U133A and U133B	23,309*	29	24	19,110	Unpublished (GSE37023)
YGC	Yonsei University, South Korea	Illumina Human-6 v2	48,803	65	65	25,440	PMID:22735568 (GSE13861)

*exclusion(s) include "normal" samples and/or samples with prior adjuvant therapy

Supplementary Table 2. List of housekeeping human genes derived from the article "Human Housekeeping genes are compact," published in Eisenberg E. and Levanon E.Y. (2003) Trends in Genetics 19: 362-365.

Gene.Symbol	Refseq.id
ACTB	NM_001101
ALDOA	NM_000034
GAPDH	NM_002046
PGK1	NM_000291
LDHA	NM_005566
RPS27A	NM_002954
RPL19	NM_000981
RPL11	NM_000975
NONO	NM_007363
ARHGDI1	NM_004309
RPL32	NM_000994
RPS18	NM_022551
HSP90AB1	NM_007355
ILF2	NM_004515
USP11	NM_004651
ATP6V1G1	NM_004888
UBA1	NM_003334
CSNK2B	NM_001320
CPNE1	NM_003915
CD40	NM_001250
CTNNA1	NM_001904
EIF3D	NM_003753
NDUFA1	NM_004541
ARAF	NM_001654
SAFB	NM_002967
ATP6AP1	NM_001183
HIST1H2BC	NM_003526
COX7A2L	NM_004718
ENSA	NM_004436
BTF3	NM_001207
IER2	NM_004907
ATP5J2	NM_004889
SRSF9	NM_003769
BUD31	NM_003910
CSTB	NM_000100
SLC9A3R2	NM_004785
MFSD10	NM_001120

Gene.Symbol	Refseq.id
HADHA	NM_000182
VEGFB	NM_003377
STK24	NM_003576
P4HB	NM_000918
RAD9A	NM_004584
EFNA3	NM_004952
ARHGAP1	NM_004308
TAPBP	NM_003190
DDX39B	NM_004640
TKT	NM_001064
HLA-C	NM_002117
RAB1A	NM_004161
UBE2D2	NM_003339
UBE2M	NM_003969
GNAS	NM_000516
PTBP1	NM_002819
RPL36AL	NM_001001
C21orf33	NM_004649
GPI	NM_000175
COX7C	NM_001867
EIF4A2	NM_001967
COX6B1	NM_001863
FAU	NM_001997
GRIK5	NM_002088
COX5B	NM_001862
COX5A	NM_004255
7-Sep	NM_001788
VAMP3	NM_004781
GPAA1	NM_003801
PABPN1	NM_004643
HSBP1	NM_001537
YARS	NM_003680
UBE2I	NM_003345
PABPC1	NM_002568
BLOC1S1	NM_001487
COX4I1	NM_001861
SPAG7	NM_004890
PSMD8	NM_002812
ZFP36L1	NM_004926

Gene.Symbol	Refseq.id
ODC1	NM_002539
RPL18	NM_000979
RPL13	NM_000977
RPS11	NM_001015
CCND3	NM_001760
RPL14	NM_003973
PSMD11	NM_002815
TPMT	NM_000367
RPL8	NM_000973
MTA1	NM_004689
COL6A1	NM_001848
AP2M1	NM_004068
ATP5D	NM_001687
STK19	NM_004197
RPS25	NM_001028
RPS19	NM_001022
MAPKAPK2	NM_004759
AIF1	NM_001623
C14orf2	NM_004894
MAP4	NM_002375
RPS9	NM_001013
B4GALT3	NM_003779
CCBP2	NM_001296
RPS5	NM_001009
SGTA	NM_003021
H6PD	NM_004285
E2F4	NM_001950
ADAM15	NM_003815
ADD1	NM_001119
ADAR	NM_001111
PAX8	NM_003466
ANXA6	NM_001155
CHIT1	NM_003465
TAGLN	NM_003186
FOLR1	NM_000802
ACTN4	NM_004924
RING1	NM_002931
ACVRL1	NM_000020
CDA	NM_001785

Gene.Symbol	Refseq.id
PTTG1IP	NM_004339
BANF1	NM_003860
JAG1	NM_000214
ID3	NM_002167
RHOA	NM_001664
CANX	NM_001746
ARF5	NM_001662
ARF4	NM_001660
ARF1	NM_001658
TSTA3	NM_003313
GDI2	NM_001494
SSR2	NM_003145
ADRBK1	NM_001619
ELAVL3	NM_001420
CAPZB	NM_004930
SNRPA	NM_004596
SDHA	NM_004168
PITPNM1	NM_004910
ILK	NM_004517
HDGF	NM_004494
GGT5	NM_004121
SEPT2	NM_004404
DAP	NM_004394
CSK	NM_004383
COX8A	NM_004074
ANXA2	NM_004039
SSTR5	NM_001053
CTBP1	NM_001328
CHD4	NM_001273
ZNF91	NM_003430
TTC1	NM_003314
TMBIM6	NM_003217
SRM	NM_003132
SGSH	NM_000199
PSME2	NM_002818
PRKAG1	NM_002733
PGD	NM_002631
PRDX1	NM_002574
NME2	NM_002512

Gene.Symbol	Refseq.id
MTX1	NM_002455
MSN	NM_002444
MC2R	NM_000529
LTBP4	NM_003573
LMO1	NM_002315
IMPDH2	NM_000884
IFITM1	NM_003641
GRM4	NM_000841
GNAI2	NM_002070
GDI1	NM_001493
GAS1	NM_002048
FTH1	NM_002032
EIF4G2	NM_001418
DAXX	NM_001350
CNTN1	NM_001843
BSG	NM_001728
ARL2	NM_001667
ARF3	NM_001659
DYNLL1	NM_003746
HLA-G	NM_002127
HGS	NM_004712
RASSF7	NM_003475
ATP5A1	NM_004046
CSNK1E	NM_001894
SNX3	NM_003795
CTSD	NM_001909
PSMA7	NM_002792
PSMB7	NM_002799
LDHB	NM_002300
SREBF1	NM_004176
PSMB4	NM_002796
PSMB2	NM_002794
PSMB1	NM_002793
MYH9	NM_002473
CENPB	NM_001810
PFDN5	NM_002624
SYNGR2	NM_004710
AP1B1	NM_001127
H3F3A	NM_002107

Gene.Symbol	Refseq.id
ARHGEF7	NM_003899
YWHAZ	NM_003406
MAP3K11	NM_002419
AES	NM_001130
EZR	NM_003379
PHF1	NM_002636
PFDN1	NM_002622
CKB	NM_001823
YWHAH	NM_003405
RNH1	NM_002939
SLC25A11	NM_003562
CYC1	NM_001916
PTMA	NM_002823
SNRPG	NM_003096
TUFM	NM_003321
YWHAB	NM_003404
RPA2	NM_002946
CD81	NM_004356
CALM2	NM_001743
ATP6V1F	NM_004231
H2AFY	NM_004893
NDUFB7	NM_004146
HMGB1	NM_002128
FCER2	NM_002002
GUK1	NM_000858
XRCC6	NM_001469
BECN1	NM_003766
MCM3AP	NM_003906
CSF1	NM_000757
HPCAL1	NM_002149
ATP6V0C	NM_001694
ATP6V0B	NM_004047
ATP6V1E1	NM_001696
COX7A2	NM_001865
COX6A1	NM_004373
FKBP1A	NM_000801
RPL29	NM_000992
RPL27	NM_000988
RPLP2	NM_001004

Gene.Symbol	Refseq.id
RPLP1	NM_001003
GM2A	NM_000405
RPL3	NM_000967
ENO1	NM_001428
RPL38	NM_000999
RPL37	NM_000997
RPL34	NM_000995
RPL15	NM_002948
RPS2	NM_002952
RPS24	NM_001026
RPS16	NM_001020
RPS15	NM_001018
RPS13	NM_001017
RPL5	NM_000969
RPL17	NM_000985
POLR2A	NM_000937
RPS12	NM_001016
HNRNPK	NM_002140
HNRNPD	NM_002138
HNRNPAB	NM_004499
RPS10	NM_001014
MAZ	NM_002383
MYC	NM_002467
FBL	NM_001436
AP2S1	NM_004069
ACTG1	NM_001614
M6PR	NM_002355
SNRPD2	NM_004597
LGALS9	NM_002308
CYB5R3	NM_000398
COMT	NM_000754
MGAT1	NM_002406
EIF3C	NM_003752
DDT	NM_001355
FUS	NM_004960
ZBED1	NM_004729
RRBP1	NM_004587
NDUFS5	NM_004552
ERH	NM_004450

Gene.Symbol	Refseq.id
B2M	NM_004048
LYZ	NM_000239
NME1	NM_000269
MVK	NM_000431
ENTPD6	NM_001247
UQCRC1	NM_003365
TXN	NM_003329
TUBB2A	NM_001069
TCOF1	NM_000356
SRP14	NM_003134
SRF	NM_003131
SOD1	NM_000454
SNRPB	NM_003091
SNRNP70	NM_003089
SRSF2	NM_003016
RPS6KB2	NM_003952
RPN1	NM_002950
PRKCSH	NM_002743
PNMT	NM_002686
PKM	NM_002654
PIM1	NM_002648
SLC25A3	NM_002635
NDUFC1	NM_002494
NDUFA2	NM_002488
MPG	NM_002434
MIF	NM_002415
JAK1	NM_002227
PRMT1	NM_001536
HADHB	NM_000183
GPX4	NM_002085
GP2	NM_001502
GOT2	NM_002080
EXTL3	NM_001440
EIF3F	NM_003754
EIF3G	NM_003755
EIF3I	NM_003757
DHCR7	NM_001360
DAD1	NM_001344
CYB5A	NM_001914

Gene.Symbol	Refseq.id
CLTB	NM_001834
CLTA	NM_001833
TBCB	NM_001281
CAPNS1	NM_001749
ATP5O	NM_001697
ATP5G3	NM_001689
ATF4	NM_001675
APLP2	NM_001642
DNAJB6	NM_005494
HSPA8	NM_006597
PHGDH	NM_006623
RAP1B	NM_015646
INPP5K	NM_016532
ESYT1	NM_015292
SAP18	NM_005870
COPS6	NM_006833
ARPC4	NM_005718
ARPC3	NM_005719
SYNCRIP	NM_006372
BMI1	NM_005180
TERF2IP	NM_018975
ARPC2	NM_005731
STARD7	NM_020151
FEZ1	NM_005103
FBXO7	NM_012179
PLSCR3	NM_020360
PDAP1	NM_014891
BCAP31	NM_005745
ST5	NM_005418
PRPH	NM_006262
ZNF384	NM_133476
RRAGA	NM_006570
C1D	NM_006333
GABARAPL2	NM_007285
TADA3	NM_006354
SEC61G	NM_014302
HAX1	NM_006118
DNPEP	NM_012100
CNPPD1	NM_015680

Gene.Symbol	Refseq.id
VOPP1	NM_030796
KXD1	NM_024069
EIF3K	NM_013234
C2orf27A	NM_013310
OTUB1	NM_017670
TRAP1	NM_016292
LMTK2	NM_014916
GPRIN2	NM_014696
ZNF592	NM_014630
IST1	NM_014761
SYNPO	NM_007286
COPE	NM_007263
ZNHIT1	NM_006349
UQCRH	NM_006004
ALG3	NM_005787
H2AFV	NM_012412
PLXNB2	NM_012401
PARK7	NM_007262
UBC	NM_021009
MARCKSL1	NM_023009
NELFB	NM_015456
RAD23A	NM_005053
UQCR11	NM_006830
GPR56	NM_005682
RERE	NM_012102
KIFC3	NM_005550
MCL1	NM_021960
PPP1R11	NM_021959
MLEC	NM_014730
UQCRQ	NM_014402
KAT7	NM_007067
TUBB3	NM_006086
TCF25	NM_014972
TMEM109	NM_024092
HLA-DRB4	NM_021983
TRIM27	NM_006510
RNPS1	NM_006711
DNAJB1	NM_006145
CGB7	NM_033142

Gene.Symbol	Refseq.id
TIMM44	NM_006351
PUF60	NM_014281
ARL2BP	NM_012106
RELA	NM_021975
MFN2	NM_014874
AFG3L2	NM_006796
RUVBL2	NM_006666
DIAPH1	NM_005219
MYL12B	NM_033546
MXRA8	NM_032348
SNX22	NM_024798
TMSB10	NM_021103
SDR39U1	NM_020195
PTOV1	NM_017432
RNF44	NM_014901
ADAMTSL2	NM_014694
NEDD8	NM_006156
CCT7	NM_006429
SARS	NM_006513
PFN1	NM_005022
SDC3	NM_014654
RPL35	NM_007209
TUBA1B	NM_006082
NXF1	NM_006362
SLC6A7	NM_014228
AGPAT1	NM_006411
MRPL23	NM_021134
POLR2F	NM_021974
SEC61B	NM_006808
RPS14	NM_005617
HNRNPH1	NM_005520
TALDO1	NM_006755
MANF	NM_006010
AKAP17A	NM_005088
PTDSS1	NM_014754
FOXM1	NM_021953
RAC1	NM_006908
VAMP1	NM_014231
ABL1	NM_005157

Gene.Symbol	Refseq.id
RAN	NM_006325
ATXN2L	NM_007245
RTN4	NM_007008
ZFPL1	NM_006782
JTB	NM_006694
NUDT3	NM_006703
CPNE6	NM_006032
GTPBP6	NM_012227
TAX1BP3	NM_014604
FCGR2A	NM_021642
JUND	NM_005354
NFKBIA	NM_020529
LAMP1	NM_005561
EFCAB14	NM_014774
SND1	NM_014390
MEA1	NM_014623
CHMP2A	NM_014453
CIZ1	NM_012127
CD3EAP	NM_012099
CALM1	NM_006888
RBPMS	NM_006867
RBM3	NM_006743
C1QL1	NM_006688
VAR5	NM_006295
TACC1	NM_006283
PIN1	NM_006221
LASP1	NM_006148
MT3	NM_005954
UQCRCF1	NM_006003
CCT3	NM_005998
VPS72	NM_005997
SLC6A8	NM_005629
KARS	NM_005548
ISLR	NM_005545
CFL1	NM_005507
NCL	NM_005381
MLF2	NM_005439
PRPF8	NM_006445
TOMM7	NM_019059

Gene.Symbol	Refseq.id
MRC2	NM_006039
AKR1A1	NM_006066
PRRC2B	NM_013318
GNB2L1	NM_006098
CASC3	NM_007359
TMED9	NM_017510
BRMS1	NM_015399
APOBEC3C	NM_014508
UBB	NM_018955
CREB3	NM_006368
XPO7	NM_015024
MRPL9	NM_031420
PDCD6	NM_013232
MDH1	NM_005917
JAM3	NM_032801
MAP2K2	NM_030662
DPF2	NM_006268
YWHAQ	NM_006826
TEX261	NM_144582
DUOXA1	NM_144565
SLC25A1	NM_005984
COMMD4	NM_017828
SAR1A	NM_020150
PPP2R1A	NM_014225
SUMO2	NM_006937
TSFM	NM_005726
HSPA5	NM_005347
CNPY2	NM_014255
TMED2	NM_006815
MAPK8IP1	NM_005456
GNB2	NM_005273
LYPLA2	NM_007260
NDUFV1	NM_007103
BTBD2	NM_017797
ANAPC5	NM_016237
EIF1	NM_005801
DDOST	NM_005216
PRKD2	NM_016457
DRAP1	NM_006442

Gene.Symbol	Refseq.id
MYL6	NM_021019
WDR1	NM_005112
RAB8A	NM_005370
TLN1	NM_006289
SCAMP3	NM_005698
CDK11A	NM_024011
RBM8A	NM_005105
RPL10	NM_006013
TSHZ1	NM_005786
RPL10A	NM_007104
TRIM28	NM_005762
AATF	NM_012138
ARHGEF18	NM_015318
RPL13A	NM_012423
POLR2L	NM_021128
TMEM147	NM_032635
XBP1	NM_005080
HYOU1	NM_006389
C9orf16	NM_024112
ERP29	NM_006817
TUT1	NM_022830
GSK3A	NM_019884
MRPS12	NM_021107
NDUFV2	NM_021074
CLSTN1	NM_014944
DAZAP2	NM_014764
CTDNEP1	NM_015343
DKK4	NM_014420
PAK4	NM_005884
PICK1	NM_012407
AHSA1	NM_012111
PCGF2	NM_007144
TCEB2	NM_007108
GABARAP	NM_007278
ATP5I	NM_007100
SUMO3	NM_006936
IDH3B	NM_006899
KDELRL1	NM_006801
KIF1C	NM_006612

Gene.Symbol	Refseq.id
TUBGCP2	NM_006659
API5	NM_006595
ANP32B	NM_006401
RABAC1	NM_006423
HEXIM1	NM_006460
ATP5H	NM_006356
ACAT2	NM_005891
SRRM1	NM_005839
HINT1	NM_005340
ATP5G1	NM_005175
ALDOC	NM_005165
NDUFA7	NM_005001
EEF1A1	NM_001402
EEF1A2	NM_001958
EEF2	NM_001961
PPP1R10	NM_002714
PSMD2	NM_002808
PSMD3	NM_002809
CLOCK	NM_004898
RASSF1	NM_007182
EEF1D	NM_032378
MMPL1	NM_004142
SULT1A3	NM_003166
PPP2CB	NM_004156
ZNF305	NM_014724
PRO1843	NM_018507
REA	NM_007273
RE2	NM_007369
KIAA0618	NM_014833
G2AN	NM_014610
NACA	NM_005594

Supplementary Table 3. Description of GSEA genesets

Descriptions of top 20 curated genesets (C2-MSigDB) from GSEA on RUV-4 results for all Affymetrix platform cohorts			
Geneset	Category [†]	Description	Reference (PMID/ others)
UZONYI_RESPONSE_TO_LEUKOTRIENE_AND_THROMBIN	Vasculature-related	Genes up-regulated in HUVEC cells (primary endothelium) after stimulation with leukotriene LTD4 [PubChem=3908] or thrombin (F2) [GeneID=2147] for 1 h. Stimulated HUVEC cells in turn activate proinflammatory genes involved in vascular injury.	16606835 (PMID)
SENGUPTA_NASOPHARYNGEAL_CARCINOMA_DN	Tumorigenesis-related	Genes down-regulated in nasopharyngeal carcinoma relative to the normal tissue.	16912175 (PMID)
CROMER_TUMORIGENESIS_DN	Tumorigenesis-related	Tumorigenesis markers of head and neck squamous cell carcinoma (HNSCC): down-regulated in the 'early' tumours vs normal samples.	14676830 (PMID)
BERTUCCI_INVASIVE_CARCINOMA_DUCTAL_VS_LOBULAR_DN	Tumorigenesis-related	Genes down-regulated in the invasive ductal carcinoma (IDC) compared to the invasive lobular carcinoma (ILC), the two major pathological types of breast cancer.	18490921 (PMID)
SMID_BREAST_CANCER_LUMINAL_A_UP	Tumorigenesis-related	Genes up-regulated in the luminal A subtype of breast cancer.	18451135 (PMID)
PETRETTO_CARDIAC_HYPERTROPHY	Others	Genes that correlated most highly with left ventricular mass (LVM) index.	18443592 (PMID)
YAMASHITA_METHYLATED_IN_PROSTATE_CANCER	Methylation-related	Genes up-regulated in prostate cancer cell lines after treatment with demethylating agent 5-aza-2'-deoxycytidine (decitabine) [PubChem=451668]. These up-regulated genes represent methylation-silenced genes.	18381416 (PMID)
SMID_BREAST_CANCER_RELAPSE_IN_BONE_UP	Metastasis-related	Genes up-regulated in bone relapse/ metastasis of breast cancer.	18451135 (PMID)
KLEIN_TARGETS_OF_BCR_ABL1_FUSION	Immune-related	Genes changed in pre-B lymphoblastic leukemia cells with BCR-ABL1 fusion [GeneID=613][GeneID=25] vs normal pre-B lymphocytes.	16205638 (PMID)

HAHTOLA_SEZARY_SYNDROM_DN	Immune-related	Genes down-regulated in monocytes isolated from peripheral blood samples of Sezary syndrom patients compared to those from healthy normal donors.	16914566 (PMID)
FLECHNER_BIOPSY_KIDNEY_TRANSPLANT_REJECTED_VS_OK_UP	Immune-related	Genes up-regulated in kidney biopsies from patients with acute transplant rejection compared to the biopsies from patients with well functioning kidneys more than 1-year post transplant. These up-regulated genes are largely involved in immune/ inflammatory response.	15307835 (PMID)
RICKMAN_HEAD_AND_NECK_CANCER_D	Immune-related	Cluster d: genes identifying an intrinsic group in head and neck squamous cell carcinoma (HNSCC). Using ontology-based assessments, these genes were identified in the source publication to be involved in immune function.	18679425 (PMID)
STOSSI_RESPONSE_TO ESTRADIOL	Estrogen regulation	Genes up-regulated by estradiol (E2) [PubChem=5757] in U2OS cells (osteosarcoma) expressing ESR1 or ESR2 [GeneID=2099;2100].	15033914 (PMID)
BOSCO_EPITHELIAL_DIFFERENTIATION_MODULE	Development/ differentiation-related	Genes representing epithelial differentiation module in sputum during asthma exacerbations i.e. enriched for genes that are associated with the mucociliary differentiation of airway epithelial cells.	20336062 (PMID)
ENGELMANN_CANCER_PROGENITORS_DN	Development/ differentiation-related	Down-regulated genes in the cancer progenitor (stem) cells corresponding to side population (SP) MCF7 cells (breast cancer) positive for MUC1 [GeneID=4582].	18381450 (PMID)
BOQUEST_STEM_CELL_UP	Development/ differentiation-related	Genes up-regulated in freshly isolated CD31- [GeneID=5175] (stromal stem cells from adipose tissue) versus the CD31+ (non-stem) counterparts.	15635089 (PMID)
GEORGANTAS_HSC_MARKERS	Development/ differentiation-related	Genes up-regulated in HSC (hematopoietic stem cells) compared to HPC (hematopoietic progenitor cells).	15231652 (PMID)
NAKAYAMA_SOFT_TISSUE_TUMORS_PCA2_DN	Development/ differentiation-related	Top 100 probe sets contributing to the negative side of the 2nd principal component; associated with adipocytic differentiation.	17464315 (PMID)

URS_ADIPOCYTE_DIFFERENTIATION_UP	Adipocyte-related	Genes up-regulated in primary adipocytes compared to preadipocytes.	15051823 (PMID)
KEGG_PPAR_SIGNALING_PATHWAY	Adipocyte-related	PPAR signalling pathway; Peroxisome proliferator-activated receptors (PPARs) are nuclear hormone receptors that are activated by fatty acids and their derivatives. PPAR has three subtypes (PPARalpha, beta/delta, and gamma) showing different expression patterns in vertebrates. Each of them is encoded in a separate gene and binds fatty acids and eicosanoids. PPARalpha plays a role in the clearance of circulating or cellular lipids via the regulation of gene expression involved in lipid metabolism in liver and skeletal muscle. PPARbeta/delta is involved in lipid oxidation and cell proliferation. PPARgamma promotes adipocyte differentiation to enhance blood glucose uptake.	http://www.genome.jp/kegg/pathway/hsa/hsa03320.html (others)

Descriptions of top 20 immunological genesets (C7-MSigDB) from GSEA on RUV-4 results for all Affymetrix platform cohorts

Geneset	Category[†]	Description	Reference (PMID/ others)
GSE24634_TREG_VS_TCONV_POST_DAY10_IL4_CONVERSION_DN	T-cell signature	Genes down-regulated in comparison of CD25+ regulatory T cell (Treg) treated with IL4[GeneID=3565] at day 10 versus CD25- T cells treated with IL4 [GeneID=3565] at 10 day i.e. genes differentially expressed in peripheral Treg cells compared to CD25- control cells at 10 days post IL-4 stimulation	21347372
GSE1460_INTRATHYMIC_T_PROGENITOR_VS_THYMIC_STROMAL_CELL_DN	Thymic stromal signature	Genes down-regulated in comparison of intrathymic T progenitor cells (ITTP) versus thymic stromal cells. These genes are found to be up-regulated in later stages of T-cell development.	15210650
GSE3982_MAC_VS_TH2_DN	T-cell signature	Genes down-regulated in comparison of macrophages versus Th2 cells.	16474395
GSE22886_TCELL_VS_BCELL_NAIVE_UP	T-cell signature	Genes up-regulated in comparison of naive CD4 [GeneID=920] CD8 T cells versus naive B cells.	15789058
GSE24634_NAIVE_CD4_TCELL_VS_DAY3_IL4_CONV_TREG_UP	T-cell signature	Genes up-regulated in comparison of naive T cells at day 0 versus CD25+ regulatory T cell (Treg) treated with IL4 [GeneID=3565] at day 3.	21347372
GSE22886_NAIVE_CD8_TCELL_VS_MONOCYTE_UP	T-cell signature	Genes up-regulated in comparison of naive CD8 T cells versus day 0 monocytes.	15789058
GSE22886_NAIVE_CD4_TCELL_VS_MONOCYTE_UP	T-cell signature	Genes up-regulated in comparison of naive CD4 [GeneID=920] T cells versus day 0 monocytes.	15789058
GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN2_THYMOCYTE_FETAL_DN	T-cell signature	Genes down-regulated in comparison of thymic progenitors versus fetal DN2 thymocytes.	22581009

GSE17974_IL4_AND_ANTI_IL12_VS_UNTREATED_72H_ACT_CD4_TCELL_UP	T-cell signature	Genes up-regulated in comparison of CD4 [GeneID=920] T cells treated with IL4 [GeneID=3565] and anti-IL12 at 72 h versus the untreated cells at 72 h.	20620947
GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN3_THYMOCYTE_FETAL_UP	Thymic progenitor signature	Genes up-regulated in comparison of thymic progenitors versus fetal DN3 thymocytes.	22581009
GSE9988_ANTI_TREM1_VS_VEHICLE_TREATED_MONOCYTES_UP	Monocyte signature	Genes up-regulated in comparison of monocytes treated with anti-TREM1 [GeneID=54210] versus monocytes treated with vehicle. Proinflammatory genes.	18292579
GSE9988_LPS_VS_LPS_AND_ANTI_TREM1_MONOCYTE_DN	Monocyte signature	Genes down-regulated in comparison of monocytes treated with 5000 ng/ml LPS (TLR4 agonist) versus monocytes treated with anti-TREM1 [GeneID=54210]. Proinflammatory genes.	18292579
GSE9988_ANTI_TREM1_VS_CTRL_TREATED_MONOCYTES_UP	Monocyte signature	Genes up-regulated in comparison of monocytes treated with anti-TREM1 [GeneID=54210] versus monocytes treated with control IgG. Proinflammatory genes.	18292579
GSE9006_TYPE_1_VS_TYPE_2_DIABETES_PBMC_AT_DX_UP	Dysregulation of innate and adaptive immune signature	Genes up-regulated in peripheral blood mononuclear cells (PBMC) from patients with type 1 diabetes at the time of diagnosis versus those with type 2 diabetes at the time of diagnosis. Note: Type 1 diabetes (T1D) is accompanied by changes in gene expression in peripheral blood mononuclear cells (PBMCs) due to dysregulation of adaptive and innate immunity, counterregulatory responses to immune dysregulation, insulin deficiency and hyperglycemia.	17595242

GSE9006_HEALTHY_VS_TYPE_1_DIABETES_PBMC_AT_DX_DN	Dysregulation of innate and adaptive immune signature	Genes down-regulated in comparison of peripheral blood mononuclear cells (PBMC) from healthy donors versus PBMCs from patients with type 1 diabetes at the time of diagnosis. Note: Type 1 diabetes (T1D) is accompanied by changes in gene expression in peripheral blood mononuclear cells (PBMCs) due to dysregulation of adaptive and innate immunity, counterregulatory responses to immune dysregulation, insulin deficiency and hyperglycemia.	17595242
GSE3982_DC_VS_TH2_UP	Dendritic cell signature	Genes up-regulated in comparison of dendritic cells (DC) versus Th2 cells.	16474395
GSE3982_DC_VS_CENT_MEMORY_CD4_TCELL_UP	Dendritic cell signature	Genes up-regulated in comparison of dendritic cells (DC) versus central memory CD4[GeneID=920] T cells.	16474395
GSE17721_LPS_VS_POLYIC_0.5H_BMDM_UP	Dendritic cell signature	Genes up-regulated in comparison of dendritic cells (DC) stimulated with LPS (TLR4 agonist) at 0.5 h versus DC cells stimulated with poly(I:C) (TLR3 agonist) at 0.5 h.	19729616
GSE22886_IGG_IGA_MEMORY_BCELL_VS_BM_PLASMA_CELL_UP	B-cell signature	Genes up-regulated in comparison of memory IgG IgA B cells versus plasma cells from bone marrow and blood.	15789058
GSE10325_BCELL_VS_MYELOID_UP	B-cell signature	Genes up-regulated in comparison of healthy B cells versus healthy myeloid cells.	18275831

Descriptions of top 20 curated genesets (C2-MisgDB) from GSEA on RUV-4 results for all non-Affymetrix platform cohorts			
Geneset	Category [†]	Description	Reference (PMID/ others)
SHEDDEN_LUNG_CANCER_GOOD_SURVIVAL_A12	Immune-related	Cluster 12 of method A: up-regulation of these genes in patients with non-small cell lung cancer (NSCLC) predicts good survival outcome. Cluster 12 contains many immunological-related genes.	18641660 (PMID)
JAEGER_METASTASIS_DN	Tumorigenesis-related	Genes down-regulated in metastases from malignant melanoma compared to the primary tumours.	17289871 (PMID)
CHIBA_RESPONSE_TO_TSA_UP	Tumorigenesis-related	Cancer related genes up-regulated in any of four hepatoma cell lines following 24 h treatment with TSA [PubChem=5562].	15452378 (PMID)
HUMMERICH_SKIN_CANCER_PROGRESSION_UP	Tumorigenesis-related	Selected genes up-regulated during progression through benign to malignant skin tumours formed by treatment with DMBA and TPA [PubChem=6001;4792] chemicals in the two stage skin carcinogenesis model.	16247483 (PMID)
CROMER_TUMORIGENESIS_UP	Tumorigenesis-related	Tumorigenesis markers of head and neck squamous cell carcinoma (HNSCC): up-regulated in the 'early' tumours vs normal samples.	14676830 (PMID)
KONDO_PROSTATE_CANCER_HCP_WITH_H3K27ME3	Transcription regulation	Genes with high histone H3 trimethylation mark at K27 (H3K27me3) in PC3 cells (prostate cancer) by ChIP-chip assay on a 12K CpG array (high-CpG-density promoters, HCP).	18488029 (PMID)
NIELSEN_GIST_AND_SYNOVIAL_SARCOMA_DN	Stromal-related	Top 20 genes whose down-regulation correlated with gastrointestinal stromal tumours (GIST) and synovial sarcoma compared to other tumours.	11965276 (PMID)
HSIAO_LIVER_SPECIFIC_GENES	Others	Liver selective genes	11773596 (PMID)
WINZEN_DEGRADED_VIA_KHSRP	Inflammation-related	Transcripts (mRNA molecules) rapidly degraded upon interaction with KHSRP[GeneID=8570]. KHSRP functions as a limiting factor in inflammatory gene expression.	17908789 (PMID)
SCHLOSSER_SERUM_RESPONSE_UP	Immune-related	Cluster 1: genes up-regulated in B493-6 cells (B lymphocytes) upon serum stimulation but not by affected by MYC [GeneID=4609].	15516975 (PMID)
LEE_DIFFERENTIATING_T_LYMPHOCYTE	Immune-related	Genes enriched at every T lymphocyte differentiation stage compared to the early passage fetal thymic stromal cultures (TSC).	15210650 (PMID)

SHAFFER_IRF4_TARGETS_IN_ACTIVATED_DENDRITIC_CELL	Immune-related	IRF4 [GeneID=3662] target genes up-regulated in plasmacytoid dendritic cells compared to monocytes. The transcription factor IRF4 (interferon regulatory factor 4) is required during an immune response for lymphocyte activation and the generation of immunoglobulin-secreting plasma cells.	18568025 (PMID)
ZHAN_VARIABLE_EARLY_DIFFERENTIATION_GENES_DN	Development/ differentiation-related	The vEDG down-regulated set: most variable early differentiation genes (EDG) with similar expression patterns in tonsil B lymphocytes (TBC) and multiple myeloma (MM) cells compared to the plasma cells from tonsil (TPC) and bone marrow (BPC).	12393520 (PMID)
HOWLIN_PUBERTAL_MAMMARY_GLAND	Development/ differentiation-related	Genes up-regulated in pubertal mammary glands compared to mammary glands from other developmental stages. These include key mediators of pubertal ductal morphogenesis.	16278680 (PMID)
HUPER_BREAST_BASAL_VS_LUMINAL_UP	Development/ differentiation-related	Genes up-regulated in basal mammary epithelial cells compared to the luminal ones.	17409405 (PMID)
REACTOME_MITOTIC_G1-G1_S_PHASES	Cell-cycle-related	Genes involved in Mitotic G1-G1/S phases	http://www.reactome.org/cgi-bin/eventbrowser_st_id?ST_ID=REACT_21267 (others)
REACTOME_G2_M_CHECKPOINTS	Cell-cycle-related	Genes involved in G2/M Checkpoints	http://www.reactome.org/cgi-bin/eventbrowser_st_id?ST_ID=REACT_828 (others)
PID_FOXM1PATHWAY	Cell-cycle-related	FOXM1 transcription factor network	18832364 (PMID)
DIRMEIER_LMP1_RESPONSE_LATE_DN	Cell-cycle-related	Cluster 4: genes down-regulated in B2264-19/3 cells (primary B lymphocytes) within 60-180 min after activation of LMP1 (an oncogene encoded by Epstein-Barr virus, EBV). LMP1's signals were found to be essential for the G1/S transition in human B cells; cells lacking LMP1's signals are cell cycle arrested and survive quiescently.	15674340 (PMID)
ZHAN_MULTIPLE_MYELOMA_CD1_DN	Cell-cycle-related	Top 50 down-regulated genes in cluster CD-1 of multiple myeloma samples with the characteristic expression spike of CCND1 [GeneID=595]. CCND1 is cell-cycle related.	16728703 (PMID)

Supplementary Table 4. Differentially expressed genes derived from running RUV-4 (Affymetrix & non-Affymetrix platform datasets)

Affymetrix platform cohorts						
genes	betahat	t.stats	p.value	adj.p.value	ebayes.p.value	adj.ebayes.p.value
AADAT	0.460425	1.749325	0.081642	0.148671	0.079925	0.14628
AAK1	0.124787	1.114861	0.266138	0.376421	0.271394	0.381901
AAMP	0.192591	1.472882	0.142225	0.231184	0.14446	0.234368
AARS	0.238852	1.40345	0.161905	0.256561	0.161699	0.256186
AATF	0.504913	2.734459	0.006762	0.018533	0.006657	0.01834
ABAT	0.18244	0.487686	0.626263	0.722315	0.623656	0.719726
ABCA1	0.382357	2.360915	0.019112	0.044645	0.019153	0.044742
ABCA3	-0.38372	-1.73949	0.08336	0.150979	0.082103	0.14951
ABCA4	0.563245	5.399655	1.74E-07	2.01E-06	2.48E-07	2.75E-06
ABCA5	-0.0436	-0.24186	0.809114	0.8631	0.808848	0.86282
ABCA6	1.110834	4.703209	4.54E-06	3.60E-05	4.07E-06	3.25E-05
ABCA8	-0.12899	-0.65035	0.516151	0.628253	0.514974	0.627041
ABCB10	0.442528	1.828472	0.068845	0.13042	0.06747	0.128126
ABCB6	0.409117	2.976755	0.003242	0.010039	0.003367	0.010357
ABCB7	0.696655	4.218683	3.60E-05	0.000222	3.59E-05	0.000221
ABCB8	-0.02682	-0.24133	0.809528	0.863154	0.811632	0.864613
ABCB9	0.444697	3.660228	0.000316	0.001401	0.000351	0.001521
ABCC10	-0.11267	-0.55441	0.579866	0.68384	0.578686	0.682984
ABCC2	-0.46548	-1.59203	0.112826	0.1929	0.110547	0.189763
ABCC5	0.969541	3.178339	0.001696	0.005794	0.001579	0.005436
ABCC8	0.322875	2.675936	0.008018	0.021424	0.008531	0.02259
ABCD1	0.286616	2.610149	0.009678	0.02516	0.010541	0.027088
ABCE1	0.691625	4.826805	2.61E-06	2.17E-05	2.77E-06	2.29E-05
ABCF1	0.404466	2.89548	0.004171	0.012423	0.004308	0.01275
ABCF2	0.133768	1.074353	0.283852	0.394939	0.287291	0.399488
ABCF3	0.364588	2.450449	0.015056	0.036569	0.015271	0.036996
ABCG2	1.75165	3.877657	0.00014	0.000709	0.000123	0.000634
ABHD2	1.358056	4.90654	1.81E-06	1.58E-05	1.57E-06	1.40E-05
ABHD4	0.678357	6.427842	8.04E-10	1.75E-08	1.26E-09	2.56E-08
ABHD5	1.384842	7.067853	2.10E-11	7.20E-10	1.80E-11	6.47E-10
ABHD6	0.481776	2.190772	0.029528	0.063749	0.02887	0.062732
ABI2	0.554923	4.097374	5.89E-05	0.000337	6.32E-05	0.000356
ABI3BP	-0.52276	-2.18224	0.03016	0.064905	0.029358	0.06368
ABL1	0.465847	3.243775	0.001365	0.004823	0.001408	0.004959
ABLIM1	0.369301	1.490739	0.137475	0.225445	0.135447	0.22254
ABLIM3	0.819934	3.603693	0.000389	0.001664	0.000366	0.001578

ABP1	-0.64683	-1.20908	0.227942	0.334895	0.224005	0.331181
ABR	-0.05049	-0.30893	0.757671	0.826998	0.757739	0.827029
ABTB1	-0.11239	-1.02724	0.305447	0.419032	0.311213	0.425204
ABTB2	0.250983	2.07202	0.03944	0.08123	0.041024	0.083975
ACAA1	0.231285	1.445888	0.149645	0.24128	0.149916	0.241635
ACAA2	0.572129	2.561279	0.011104	0.028225	0.010765	0.027538
ACACA	0.09606	0.601601	0.548065	0.656448	0.548362	0.656074
ACACB	1.002772	4.497698	1.12E-05	8.01E-05	1.02E-05	7.41E-05
ACAD8	0.32328	1.591153	0.113024	0.193079	0.111896	0.19131
ACAD9	0.711171	5.944549	1.09E-08	1.67E-07	1.39E-08	2.07E-07
ACADM	1.407144	6.812597	9.21E-11	2.64E-09	7.80E-11	2.32E-09
ACADS	0.313383	2.092207	0.037577	0.077941	0.037962	0.078738
ACADSB	0.638091	3.025783	0.002778	0.008804	0.00268	0.008538
ACAT2	-0.28233	-1.16582	0.24496	0.354031	0.242616	0.3514
ACBD3	0.772318	4.165782	4.47E-05	0.000267	4.31E-05	0.000259
ACBD5	-0.00016	-0.00076	0.999395	0.999764	0.999393	0.999761
ACCN2	0.949457	6.793643	1.03E-10	2.89E-09	1.15E-10	3.23E-09
ACHE	1.194418	5.251008	3.59E-07	3.80E-06	3.16E-07	3.39E-06
ACLY	-0.69213	-3.33981	0.000986	0.003649	0.000946	0.003506
ACO1	0.625913	2.92597	0.003797	0.011438	0.003665	0.011093
ACOX1	0.659602	2.969592	0.003316	0.010212	0.003185	0.009875
ACOX2	-0.40452	-1.40242	0.162213	0.256874	0.159586	0.253568
ACPI	-0.47517	-3.1666	0.001763	0.005979	0.001798	0.006091
ACP5	0.244507	0.805092	0.421644	0.537214	0.418589	0.534031
ACP6	-1.00566	-3.64972	0.000329	0.001449	0.000302	0.001345
ACSL5	0.046338	0.137116	0.891066	0.922672	0.890294	0.921887
ACTA2	0.008749	0.025341	0.979806	0.986946	0.97966	0.986799
ACTG2	0.14739	0.702628	0.483037	0.595873	0.481505	0.594139
ACTL6A	1.413593	7.13846	1.39E-11	5.21E-10	1.18E-11	4.51E-10
ACTN2	-0.3314	-1.27058	0.205232	0.309827	0.202707	0.30654
ACTR1A	-0.0904	-0.7539	0.451721	0.56667	0.455527	0.570167
ACVR1	0.670992	4.940885	1.55E-06	1.39E-05	1.70E-06	1.52E-05
ACVR1B	0.084469	0.4954	0.620817	0.71709	0.620645	0.71742
ACVRL1	0.329229	2.136924	0.033718	0.071129	0.033965	0.071649
ACYP1	-0.06077	-0.28079	0.77914	0.84067	0.778311	0.840094
ACYP2	-0.08799	-0.33449	0.738335	0.812306	0.736911	0.811556
ADA	0.575318	1.622133	0.10622	0.183408	0.103672	0.179801
ADAM10	-0.679	-3.59107	0.000407	0.001734	0.000394	0.001685
ADAM11	0.115463	1.462021	0.145176	0.23496	0.157708	0.251519
ADAM15	0.709963	4.632218	6.22E-06	4.73E-05	6.37E-06	4.87E-05
ADAM17	0.274863	1.622301	0.106184	0.183408	0.106035	0.18329

ADAM19	-0.16384	-1.42644	0.155171	0.24857	0.159297	0.25328
ADAM23	0.091435	0.450822	0.652566	0.744793	0.651563	0.743643
ADAM8	0.170223	0.935023	0.350811	0.46603	0.350047	0.465804
ADAMTS1	1.404115	5.287194	3.01E-07	3.26E-06	2.56E-07	2.83E-06
ADAMTS13	-0.02713	-0.28311	0.777361	0.839763	0.781287	0.8426
ADAMTS18	-0.03432	-0.24867	0.803849	0.858852	0.804643	0.8597
ADAMTS2	0.52101	2.376969	0.01832	0.042967	0.017853	0.041996
ADAMTS8	-0.10704	-0.35106	0.725883	0.803687	0.724144	0.801951
ADAR	0.306204	2.797551	0.00561	0.015853	0.006184	0.017281
ADARB1	0.270393	2.630604	0.009131	0.023966	0.010173	0.026272
ADCY1	0.385997	3.094694	0.002228	0.007334	0.002387	0.007763
ADCY2	0.37519	2.905941	0.004039	0.012088	0.004255	0.012642
ADCY3	0.122565	0.772654	0.440564	0.556081	0.440962	0.55653
ADCY9	-0.3598	-2.37028	0.018646	0.043644	0.018845	0.044044
ADD1	0.275266	2.682378	0.00787	0.021089	0.008806	0.0232
ADD3	0.866104	3.223035	0.001463	0.005115	0.001371	0.004852
ADH1C	1.639788	2.77277	0.006039	0.016867	0.005614	0.015857
ADH4	-0.07399	-0.18777	0.851231	0.891838	0.850093	0.891043
ADH5	0.78218	5.777882	2.59E-08	3.65E-07	2.92E-08	4.07E-07
ADH6	-0.28248	-0.67537	0.500154	0.612806	0.49676	0.608965
ADK	1.586062	6.489131	5.72E-10	1.29E-08	4.62E-10	1.07E-08
ADM	-0.51073	-1.35833	0.175761	0.274263	0.172508	0.269759
ADPGK	0.194502	1.423347	0.156065	0.249492	0.157867	0.251601
ADRA1B	-0.4647	-4.19323	4.00E-05	0.000244	4.83E-05	0.000284
ADRA1D	-0.62358	-6.05842	5.97E-09	9.63E-08	9.30E-09	1.47E-07
ADRBK2	0.926207	4.298038	2.60E-05	0.000165	2.41E-05	0.000155
ADRM1	-0.06391	-0.42624	0.670353	0.759194	0.671	0.759406
ADSL	-0.09794	-0.65243	0.514813	0.626845	0.515677	0.627572
ADSS	0.221017	2.297614	0.022532	0.05126	0.025018	0.05578
AEBP1	-0.06581	-0.33488	0.738037	0.812169	0.737361	0.811556
AFG3L2	0.29772	1.590109	0.113259	0.193079	0.112526	0.192177
AGA	0.518571	1.812434	0.071295	0.134249	0.069543	0.131319
AGER	0.248938	2.736099	0.00673	0.018518	0.007946	0.021246
AGGF1	0.717225	5.185285	4.92E-07	5.06E-06	5.36E-07	5.49E-06
AGL	0.759922	4.324276	2.33E-05	0.000151	2.27E-05	0.000148
AGMAT	0.159987	0.944168	0.346129	0.461636	0.345939	0.461776
AGPAT1	0.156695	1.111646	0.267515	0.37795	0.269214	0.379425
AGPAT2	0.243594	1.013115	0.312128	0.426016	0.309755	0.423582
AGR2	-1.73837	-4.12636	5.25E-05	0.000306	4.57E-05	0.000272
AGRN	-0.05425	-0.44601	0.656034	0.747134	0.658584	0.748753
AGT	1.318589	2.621488	0.009371	0.024483	0.008792	0.023188

AGXT	-0.25704	-1.73603	0.083972	0.151912	0.084687	0.153561
AHCY	0.518913	2.863029	0.004605	0.013512	0.004539	0.013332
AHR	1.044403	5.086657	7.85E-07	7.83E-06	7.17E-07	7.20E-06
AHSA1	0.071653	0.446539	0.655651	0.747134	0.655859	0.747101
AIM1	-0.63808	-2.0179	0.044828	0.09058	0.043386	0.088121
AIM2	-1.23784	-2.81423	0.005337	0.01522	0.004977	0.01435
AIP	0.172152	1.056819	0.291764	0.404476	0.291924	0.404495
AK2	0.667146	3.330534	0.001018	0.003742	0.000982	0.003628
AKAP10	-0.03717	-0.23168	0.817006	0.868565	0.817123	0.86869
AKAP12	0.272636	0.812548	0.417364	0.533046	0.414062	0.530126
AKAP13	0.784539	4.918281	1.72E-06	1.51E-05	1.73E-06	1.54E-05
AKAP6	-0.12703	-1.21822	0.224458	0.331641	0.230965	0.337857
AKAP7	0.718324	3.394171	0.000818	0.003132	0.000781	0.003028
AKAP8	0.385548	3.477158	0.000612	0.002475	0.000701	0.002774
AKAP8L	0.205522	1.783031	0.075973	0.141105	0.078864	0.145054
AKAP9	-1.52718	-3.62108	0.000365	0.001581	0.000327	0.001438
AKR1A1	0.620395	6.346919	1.26E-09	2.55E-08	2.21E-09	4.20E-08
AKR1B1	-0.02538	-0.10305	0.918017	0.943512	0.917599	0.943082
AKR1B10	-0.8173	-1.49059	0.137515	0.225445	0.134178	0.221043
AKR1C3	-1.88444	-4.06517	6.70E-05	0.000377	5.83E-05	0.000333
AKR7A2	0.051627	0.272001	0.785879	0.845999	0.78542	0.845892
AKT1S1	0.668215	3.5557	0.000462	0.001938	0.000449	0.001892
AKT2	0.279294	2.137248	0.033692	0.071105	0.034682	0.072818
AKT3	0.207262	1.280927	0.20158	0.306017	0.201784	0.306003
ALAD	0.752727	4.655561	5.61E-06	4.32E-05	5.62E-06	4.35E-05
ALAS1	-0.15274	-0.7609	0.447542	0.562419	0.446197	0.561029
ALAS2	0.363951	3.763631	0.000215	0.00101	0.000275	0.001244
ALCAM	0.075905	0.207023	0.836185	0.881182	0.834977	0.880414
ALDH1A1	1.807157	3.66719	0.000308	0.001369	0.000274	0.001243
ALDH1A2	0.441551	1.851052	0.065515	0.125018	0.064213	0.12294
ALDH1B1	0.516574	2.216705	0.027676	0.060615	0.026958	0.059377
ALDH3A1	0.203013	0.473079	0.63663	0.731938	0.633933	0.729193
ALDH3B2	-0.26732	-1.36371	0.174066	0.27234	0.172919	0.270275
ALDH5A1	1.027913	3.354886	0.000936	0.003496	0.000865	0.003267
ALDH9A1	1.151659	7.636094	6.96E-13	3.44E-11	7.23E-13	3.58E-11
ALDOA	-0.05856	-0.38107	0.703526	0.785627	0.703963	0.78577
ALDOB	-0.76599	-2.55182	0.011401	0.028823	0.010872	0.027742
ALDOC	0.348918	1.258453	0.209574	0.314897	0.206837	0.311282
ALG2	-0.00094	-0.00971	0.992264	0.995654	0.992399	0.995689
ALG3	0.413773	2.472743	0.014173	0.034712	0.014146	0.034647
ALG8	0.607445	2.73132	0.006825	0.01866	0.006593	0.018217

ALOX12P2	0.443477	3.12053	0.002049	0.006817	0.002116	0.007014
ALOX5	-0.97261	-3.75485	0.000223	0.001039	0.000205	0.000968
ALOX5AP	-0.31139	-1.14961	0.251564	0.360803	0.248791	0.357917
ALPK1	0.074298	0.53973	0.589934	0.692307	0.591493	0.693635
ALPL	0.497525	2.808595	0.005428	0.015432	0.005368	0.015292
AMACR	0.319513	1.977652	0.049228	0.098121	0.049325	0.098316
AMD1	0.304492	2.146529	0.032935	0.069791	0.033515	0.070764
AMFR	-0.21566	-0.50194	0.616216	0.713228	0.613393	0.710786
AMHR2	0.53351	4.880606	2.04E-06	1.76E-05	2.63E-06	2.19E-05
AMN	-0.15709	-0.89145	0.373673	0.490302	0.373164	0.489361
AMPD1	0.287883	0.879138	0.380294	0.497324	0.376973	0.493256
AMPD2	0.638802	4.335697	2.22E-05	0.000145	2.31E-05	0.00015
AMPD3	-0.4538	-3.47168	0.000624	0.002518	0.000666	0.002667
AMPH	1.179087	4.692598	4.76E-06	3.75E-05	4.22E-06	3.36E-05
AMT	0.374496	1.443916	0.150198	0.241923	0.147945	0.238949
ANAPC10	0.335512	2.871179	0.004493	0.013246	0.004866	0.014101
ANGPT2	0.286579	1.143866	0.253934	0.362652	0.251438	0.360127
ANGPTL4	0.852469	3.658584	0.000318	0.001406	0.000298	0.00133
ANK1	0.414995	2.602495	0.00989	0.025638	0.009936	0.02573
ANK2	0.300122	2.28498	0.023276	0.052569	0.024023	0.054003
ANK3	0.815492	3.124884	0.002021	0.006731	0.001905	0.006404
ANKH	0.425069	2.034019	0.043161	0.087589	0.042434	0.086337
ANKHD1	0.431455	3.85535	0.000152	0.00076	0.000178	0.000866
ANKRD1	0.333906	1.486134	0.138689	0.226804	0.137007	0.224681
ANKRD10	1.205045	4.430675	1.49E-05	0.000102	1.32E-05	9.25E-05
ANKRD11	0.447359	3.237269	0.001395	0.004911	0.001455	0.00511
ANKRD12	0.407595	2.409959	0.016784	0.039963	0.016734	0.039884
ANKRD16	0.229175	1.239041	0.216663	0.322473	0.215817	0.321404
ANKRD26	0.446096	3.30879	0.001096	0.003984	0.001153	0.004151
ANKRD5	0.125719	0.641929	0.521594	0.632922	0.520496	0.631474
ANLN	0.349713	1.1502	0.251322	0.360675	0.248205	0.357403
ANP32B	0.551022	5.126738	6.49E-07	6.54E-06	8.71E-07	8.62E-06
ANXA1	1.00425	3.026343	0.002773	0.0088	0.002586	0.00828
ANXA10	-0.68024	-1.14131	0.254993	0.364046	0.250884	0.359853
ANXA11	1.112267	6.238966	2.26E-09	4.29E-08	2.11E-09	4.05E-08
ANXA13	-1.31651	-2.24458	0.025799	0.057136	0.02454	0.05487
ANXA4	0.428545	1.685834	0.093258	0.166343	0.091502	0.16352
ANXA5	0.701699	4.3066	2.51E-05	0.000161	2.51E-05	0.00016
ANXA6	-0.94061	-5.19107	4.78E-07	4.94E-06	4.54E-07	4.74E-06
ANXA7	0.504978	3.026858	0.002768	0.008792	0.002761	0.008762
AOAH	-0.91049	-4.21882	3.60E-05	0.000222	3.35E-05	0.000208

AOC2	1.459906	10.83529	3.64E-22	1.43E-19	4.47E-22	1.75E-19
AOC3	1.305332	6.05076	6.21E-09	1.00E-07	5.36E-09	8.88E-08
AP1B1	-0.13714	-1.21526	0.225581	0.332455	0.230533	0.337435
APIG1	0.655139	3.778769	0.000203	0.000965	0.0002	0.000949
AP1M2	0.225253	1.18346	0.237916	0.345838	0.236858	0.345155
AP1S2	-0.06423	-0.25365	0.800001	0.856298	0.798954	0.855957
AP2A2	0.222953	1.639131	0.102628	0.178715	0.104163	0.180452
AP2B1	0.207955	1.037728	0.300546	0.413515	0.299123	0.411557
AP2S1	-0.13015	-0.94322	0.346614	0.462152	0.348599	0.464403
AP3B1	-0.04599	-0.42211	0.673362	0.761136	0.677078	0.763499
AP3B2	-0.37675	-2.73177	0.006816	0.018656	0.007037	0.019228
AP3D1	1.296923	7.043078	2.43E-11	8.14E-10	2.17E-11	7.38E-10
AP3M1	0.246375	1.429123	0.1544	0.247588	0.154104	0.246971
AP3S2	0.835727	3.80952	0.000181	0.000876	0.00017	0.000833
AP4B1	0.425199	3.115209	0.002085	0.006911	0.002176	0.007187
AP4E1	-0.0154	-0.19526	0.845373	0.887853	0.850028	0.891043
AP4M1	-0.28795	-1.54176	0.124583	0.208525	0.123831	0.20734
AP4S1	0.432733	3.247688	0.001347	0.004768	0.00142	0.004997
APBA3	0.035534	0.263411	0.792483	0.85033	0.793445	0.85122
APBB1	-0.27142	-1.81373	0.071095	0.13398	0.071677	0.134698
APBB1IP	0.720784	3.996869	8.78E-05	0.000475	8.54E-05	0.000463
APBB2	1.010333	4.536928	9.43E-06	6.85E-05	8.61E-06	6.32E-05
APC	0.618218	4.299442	2.58E-05	0.000165	2.71E-05	0.000172
APC2	-0.1059	-1.30533	0.193158	0.296293	0.20604	0.310441
APEH	0.540354	4.638394	6.05E-06	4.63E-05	7.27E-06	5.45E-05
APEX1	-0.20805	-1.50826	0.132937	0.219846	0.134524	0.221399
APEX2	0.4342	3.273175	0.001237	0.00442	0.001307	0.004642
API5	0.047675	0.269541	0.787769	0.846869	0.787538	0.847009
APLP1	0.101211	0.473448	0.636367	0.731814	0.635113	0.730373
APLP2	-0.08478	-0.38103	0.703554	0.785627	0.702382	0.784691
APOBEC1	-1.13441	-2.9019	0.00409	0.012204	0.003811	0.011482
APOBEC3B	0.021463	0.036954	0.970555	0.980281	0.970301	0.980102
APOBEC3C	1.272963	6.904375	5.43E-11	1.67E-09	4.87E-11	1.52E-09
APOBEC3F	-0.07695	-0.72964	0.466394	0.5816	0.472407	0.586453
APOC1	0.517649	1.891469	0.059888	0.116023	0.058379	0.113428
APOC2	0.82795	6.88734	5.99E-11	1.79E-09	8.04E-11	2.38E-09
APP	0.220836	0.90964	0.364017	0.48018	0.361624	0.477424
APPBP2	1.078117	6.466498	6.49E-10	1.45E-08	6.28E-10	1.39E-08
APRT	-0.18059	-1.08653	0.278444	0.389607	0.278421	0.389458
APTX	0.951818	5.740862	3.13E-08	4.33E-07	3.08E-08	4.26E-07
AQP2	0.239978	1.024719	0.306632	0.420288	0.304377	0.417807

AQP5	-0.57926	-1.48691	0.138482	0.226546	0.135466	0.22254
AQP7	1.215776	7.133437	1.43E-11	5.32E-10	1.34E-11	5.08E-10
AQP9	1.205536	3.845532	0.000158	0.000783	0.000142	0.000718
AR	1.1591	6.395684	9.60E-10	2.02E-08	8.85E-10	1.88E-08
ARF1	0.233262	1.60146	0.110723	0.189947	0.111689	0.191095
ARF3	0.065118	0.349674	0.726921	0.804079	0.726418	0.803333
ARF5	-0.14479	-1.07618	0.283038	0.394273	0.285349	0.397257
ARFGAP3	-0.11525	-0.63683	0.524902	0.635507	0.524286	0.634925
ARFGEF2	0.38318	2.259882	0.024817	0.05538	0.024746	0.055306
ARFIP1	0.237597	1.489205	0.137879	0.225716	0.138161	0.22602
ARFRP1	0.521973	3.722604	0.000251	0.001153	0.000263	0.0012
ARHGAP1	0.178058	1.590821	0.113099	0.193079	0.117067	0.198337
ARHGAP15	0.402975	2.302868	0.022229	0.050668	0.022092	0.050428
ARHGAP25	-0.02406	-0.18903	0.850249	0.891206	0.851204	0.892009
ARHGAP26	-0.44873	-2.26553	0.024462	0.054749	0.024057	0.054048
ARHGAP6	1.394905	6.342916	1.28E-09	2.60E-08	1.08E-09	2.24E-08
ARHGDI A	0.180662	1.167639	0.244228	0.353305	0.244874	0.35369
ARHGDI B	-1.00531	-6.29621	1.66E-09	3.24E-08	1.65E-09	3.28E-08
ARHGEF1	-0.16616	-1.7086	0.088948	0.159503	0.094571	0.167983
ARHGEF11	-0.4036	-2.7751	0.005998	0.016789	0.00613	0.017159
ARHGEF16	-0.13706	-0.8469	0.397978	0.514296	0.398199	0.514865
ARHGEF5	0.244809	1.356566	0.176322	0.274955	0.175688	0.273967
ARHGEF6	0.070943	0.521677	0.602425	0.701996	0.604066	0.703621
ARHGEF7	0.632806	3.373144	0.000879	0.003325	0.000856	0.003238
ARID1A	-0.12298	-0.59735	0.550892	0.658158	0.549588	0.6566
ARID1B	0.33835	1.929075	0.05502	0.108062	0.054767	0.107836
ARID3A	1.614116	6.396688	9.55E-10	2.02E-08	7.68E-10	1.66E-08
ARID4A	0.654256	5.14908	5.84E-07	5.92E-06	6.76E-07	6.80E-06
ARID4B	0.612421	5.593117	6.64E-08	8.51E-07	9.11E-08	1.12E-06
ARIH1	0.591635	4.614113	6.73E-06	5.07E-05	7.57E-06	5.64E-05
ARIH2	-0.11507	-0.8489	0.396869	0.513287	0.399041	0.51567
ARL1	0.080863	0.53032	0.59643	0.696971	0.597058	0.697264
ARL2BP	0.093449	0.870293	0.385097	0.502235	0.391138	0.50699
ARL3	0.721149	7.141127	1.36E-11	5.17E-10	2.50E-11	8.47E-10
ARL4A	0.303745	1.420057	0.15702	0.250762	0.155471	0.248627
ARL6IP5	0.589394	3.433589	0.000713	0.002829	0.000706	0.002787
ARMC8	0.111686	0.529252	0.597169	0.697496	0.595861	0.696827
ARMCX3	2.052961	7.867406	1.67E-13	1.01E-11	1.19E-13	7.80E-12
ARNTL	0.937808	3.458336	0.000654	0.002614	0.000607	0.002454
ARPC1A	0.243767	1.162186	0.246431	0.355502	0.244775	0.353656
ARPC1B	0.393681	1.870964	0.06269	0.120607	0.061756	0.118887

ARPC2	0.674975	6.602881	3.03E-10	7.42E-09	5.09E-10	1.17E-08
ARPC3	0.334475	2.761672	0.006241	0.017378	0.006657	0.01834
ARPC4	0.275889	1.379801	0.169061	0.266194	0.167815	0.264497
ARPC5	-0.69533	-5.08264	8.00E-07	7.96E-06	8.77E-07	8.66E-06
ARPC5L	-0.68969	-4.64362	5.92E-06	4.55E-05	6.15E-06	4.72E-05
ARRB1	0.954796	4.567238	8.26E-06	6.07E-05	7.65E-06	5.69E-05
ARRDC2	0.240575	1.665222	0.097305	0.172059	0.098276	0.173124
ARSA	0.418467	1.988877	0.047965	0.095849	0.047171	0.094542
ARSB	1.38009	8.792767	4.45E-16	5.82E-14	4.36E-16	5.61E-14
ARSD	0.600514	2.479843	0.013901	0.034201	0.013429	0.033255
ARSE	0.09129	0.215898	0.829269	0.87783	0.82793	0.876808
ARVCF	0.575516	5.54713	8.37E-08	1.04E-06	1.22E-07	1.45E-06
ASAH1	0.30494	1.617736	0.107166	0.184836	0.106417	0.183814
ASAM	0.722746	2.791998	0.005704	0.016043	0.005439	0.015456
ASCC3	0.295641	1.717138	0.087374	0.1571	0.087148	0.157054
ASGR1	0.710933	2.943679	0.003595	0.010914	0.00343	0.010515
ASGR2	1.4295	5.330316	2.44E-07	2.70E-06	2.07E-07	2.35E-06
ASH2L	0.038218	0.24163	0.809294	0.8631	0.80947	0.863273
ASL	0.627044	2.747893	0.0065	0.018035	0.006264	0.017478
ASMTL	-1.01567	-4.87245	2.12E-06	1.81E-05	1.94E-06	1.70E-05
ASNS	-0.59748	-2.48121	0.01385	0.034098	0.013384	0.033159
ASPA	0.719887	3.530594	0.000506	0.002091	0.000484	0.002019
ASXL1	0.485991	3.089239	0.002268	0.007438	0.002287	0.007496
ASXL2	-0.50361	-2.38094	0.018129	0.042625	0.01771	0.041722
ATAD3B	0.932012	8.974888	1.34E-16	1.97E-14	2.84E-16	4.17E-14
ATE1	0.762912	4.485589	1.18E-05	8.35E-05	1.16E-05	8.30E-05
ATF1	0.40334	2.425267	0.016111	0.038654	0.016094	0.038594
ATF2	0.391713	2.056376	0.040937	0.083837	0.040472	0.083138
ATF4	0.056631	0.349315	0.72719	0.804187	0.727307	0.803938
ATF5	0.038622	0.339405	0.734631	0.810128	0.73727	0.811556
ATF6	0.68298	4.675006	5.15E-06	4.02E-05	5.39E-06	4.19E-05
ATF7IP2	1.277042	4.31999	2.37E-05	0.000153	2.10E-05	0.000138
ATIC	0.153961	0.93539	0.350622	0.46603	0.35069	0.466336
ATM	0.969093	6.128385	4.11E-09	7.07E-08	4.13E-09	7.14E-08
ATOX1	0.625833	4.34244	2.16E-05	0.000141	2.26E-05	0.000147
ATP11C	0.92079	5.706067	3.75E-08	5.06E-07	3.73E-08	5.08E-07
ATP13A2	-0.57921	-3.41206	0.000768	0.002977	0.000762	0.002964
ATP1A1	-0.21635	-0.86289	0.389144	0.505521	0.386647	0.503252
ATP1A2	1.21609	4.408412	1.63E-05	0.000111	1.45E-05	0.000101
ATP1B1	-0.06157	-0.22068	0.825546	0.874874	0.824505	0.87377
ATP1B3	0.20291	1.440457	0.151173	0.243239	0.152624	0.245308

ATP2A2	0.047704	0.379286	0.704845	0.786396	0.706766	0.787904
ATP2A3	-1.06717	-3.95047	0.000105	0.000554	9.58E-05	0.000512
ATP2B4	0.696408	3.187441	0.001646	0.005668	0.001575	0.005428
ATP5B	-0.00182	-0.01189	0.990522	0.99433	0.990537	0.994345
ATP5C1	-0.48568	-3.13098	0.001981	0.006631	0.002004	0.00669
ATP5D	0.034396	0.244175	0.807325	0.861587	0.808004	0.862115
ATP5F1	0.797106	6.198887	2.81E-09	5.24E-08	3.36E-09	6.04E-08
ATP5G1	0.211723	1.162888	0.246146	0.355225	0.245392	0.354113
ATP5G2	0.416284	4.450733	1.37E-05	9.52E-05	1.95E-05	0.00013
ATP5H	0.052099	0.45819	0.647273	0.74056	0.65068	0.743525
ATP5I	-0.17756	-1.18799	0.23613	0.344127	0.237129	0.345155
ATP5J	-0.05218	-0.33607	0.737145	0.811948	0.73748	0.811556
ATP5J2	0.247252	1.657179	0.098922	0.174001	0.099644	0.174879
ATP5O	-0.11136	-0.9814	0.327485	0.442166	0.33254	0.44732
ATP6V0A1	0.491201	3.835832	0.000164	0.000805	0.000179	0.000869
ATP6V0A2	0.164078	1.550526	0.122466	0.205429	0.127479	0.212314
ATP6V0B	0.093067	0.607521	0.544137	0.65253	0.544785	0.653519
ATP6V0C	0.162762	1.18034	0.239151	0.347346	0.241088	0.349726
ATP6V0D1	0.064694	0.42703	0.669779	0.75891	0.670355	0.75917
ATP6V1A	0.40377	2.476133	0.014043	0.034501	0.014062	0.034549
ATP6V1B2	-0.18266	-1.02027	0.308733	0.422302	0.308091	0.422043
ATP6V1C1	0.565997	3.4231	0.000739	0.002898	0.000738	0.002888
ATP6V1F	-0.23965	-1.733	0.08451	0.152651	0.085757	0.155022
ATP6V1G1	0.409627	2.293241	0.022787	0.05169	0.022602	0.051393
ATP7A	1.451244	5.772085	2.67E-08	3.75E-07	2.23E-08	3.19E-07
ATP7B	-0.31016	-0.76863	0.442947	0.558436	0.439387	0.554841
ATP8A1	0.415298	1.885285	0.060721	0.1173	0.059675	0.115516
ATP8A2	0.232998	1.468021	0.14354	0.232714	0.143869	0.23357
ATP8B1	0.97195	4.446396	1.39E-05	9.66E-05	1.28E-05	9.03E-05
ATP9A	-0.03547	-0.18531	0.853161	0.893461	0.852825	0.893309
ATP9B	0.072743	0.734605	0.463369	0.578289	0.470734	0.585207
ATPIF1	0.069801	0.465271	0.642202	0.736721	0.642892	0.737334
ATR	0.084759	0.485595	0.627742	0.723489	0.627434	0.723134
ATRN	0.841458	4.066194	6.68E-05	0.000376	6.29E-05	0.000354
ATXN2	0.607839	4.369708	1.92E-05	0.000128	2.05E-05	0.000136
ATXN2L	-0.30987	-3.08968	0.002265	0.007438	0.002643	0.008439
ATXN3	0.494041	2.409561	0.016802	0.039985	0.016444	0.039253
AUH	1.170962	6.124295	4.20E-09	7.20E-08	3.80E-09	6.72E-08
AURKB	0.313453	2.19387	0.029301	0.063492	0.029807	0.064263
AURKC	0.473202	1.855135	0.064927	0.124199	0.063482	0.121733
AXIN1	0.566151	4.191445	4.03E-05	0.000245	4.34E-05	0.000261

AXIN2	0.092845	0.669573	0.503839	0.616398	0.505543	0.617959
AXL	0.982356	6.544824	4.20E-10	9.76E-09	4.39E-10	1.02E-08
AZGP1	-1.34395	-2.28767	0.023116	0.052308	0.02195	0.050128
AZI2	1.536361	9.928381	2.10E-19	4.93E-17	2.03E-19	4.78E-17
B2M	0.508004	4.104746	5.72E-05	0.00033	6.42E-05	0.000359
B3GALT6	0.490456	2.537838	0.011852	0.029771	0.011638	0.029346
B4GALT1	0.120109	0.633766	0.526898	0.637029	0.525997	0.636342
B4GALT3	-0.21765	-2.3179	0.021382	0.049021	0.023962	0.053911
B4GALT4	0.065621	0.300192	0.764317	0.831587	0.76341	0.830725
B4GALT5	0.495581	2.163235	0.031611	0.067322	0.030852	0.066092
B4GALT7	0.138149	1.050147	0.294813	0.408016	0.297442	0.409844
BACE2	-0.21103	-0.7036	0.482434	0.595285	0.479583	0.592545
BACH1	0.946801	9.387567	8.44E-18	1.42E-15	2.04E-17	3.51E-15
BACH2	-0.30496	-1.21688	0.224965	0.33211	0.222527	0.329203
BAD	0.042557	0.282557	0.777785	0.839763	0.778215	0.840094
BAG1	0.303158	1.327933	0.185589	0.286836	0.183646	0.284384
BAG3	0.131228	0.631847	0.528149	0.638124	0.526754	0.636439
BAG4	0.613966	2.81175	0.005377	0.015297	0.005193	0.014882
BAG5	1.460932	6.168453	3.31E-09	5.94E-08	2.75E-09	5.07E-08
BAI1	0.275559	2.44638	0.015222	0.036916	0.016321	0.039005
BAI2	0.445403	3.229508	0.001432	0.005021	0.001493	0.00522
BAIAP2	-0.71899	-3.78764	0.000197	0.000939	0.00019	0.000911
BAK1	-0.24218	-1.31226	0.190813	0.293675	0.190011	0.292228
BAMBI	-2.70301	-5.21497	4.27E-07	4.45E-06	3.40E-07	3.61E-06
BANF1	-0.32685	-2.15637	0.03215	0.068434	0.032449	0.068916
BAP1	0.285928	2.362799	0.019017	0.044446	0.019982	0.046283
BARD1	0.551534	2.559499	0.011159	0.028349	0.010849	0.027696
BASP1	0.874785	3.191018	0.001627	0.005611	0.001524	0.005302
BAT2	0.446808	3.211392	0.001521	0.00529	0.001582	0.005442
BAT3	-0.02866	-0.21491	0.830042	0.87845	0.830891	0.878796
BAT4	0.323034	2.251023	0.025382	0.056457	0.025823	0.057304
BATF	-0.77351	-4.01218	8.27E-05	0.000452	7.92E-05	0.000434
BAX	0.305097	1.093378	0.275434	0.386661	0.272528	0.383153
BAZ1A	0.712432	3.929657	0.000114	0.000594	0.000111	0.000581
BAZ2A	0.226559	2.106773	0.036281	0.075685	0.03866	0.079834
BAZ2B	0.17924	1.868941	0.062972	0.120952	0.067823	0.128691
BBX	0.987922	6.17397	3.21E-09	5.81E-08	3.21E-09	5.82E-08
BCAP29	0.789294	4.86798	2.16E-06	1.84E-05	2.16E-06	1.86E-05
BCAR1	0.072701	0.713846	0.476086	0.589641	0.482745	0.595488
BCAR3	0.486783	2.016648	0.044959	0.090807	0.043902	0.088977
BCAS1	0.543211	2.18448	0.029993	0.064635	0.029142	0.063265

BCAS2	-0.19063	-1.01678	0.310384	0.423962	0.309401	0.42322
BCAT1	1.246765	5.651339	4.95E-08	6.55E-07	4.32E-08	5.79E-07
BCAT2	-0.3438	-2.56741	0.010915	0.027798	0.011299	0.028644
BCCIP	0.383106	1.904513	0.05816	0.113276	0.057402	0.111853
BCKDHA	0.339127	2.296913	0.022573	0.051302	0.022887	0.051907
BCKDK	0.185055	1.48252	0.139646	0.228132	0.142436	0.231455
BCL10	1.261593	4.842629	2.43E-06	2.04E-05	2.12E-06	1.83E-05
BCL2	0.086935	0.856171	0.392843	0.509061	0.400061	0.516563
BCL2A1	-0.10032	-0.33395	0.738737	0.812559	0.737095	0.811556
BCL2L1	-0.40346	-1.80012	0.073225	0.137005	0.072008	0.135212
BCL2L11	0.296261	1.825462	0.0693	0.13107	0.069399	0.131144
BCL2L13	0.398626	2.911101	0.003976	0.011923	0.004126	0.012318
BCL2L2	-0.07546	-0.46617	0.641556	0.73634	0.641714	0.736342
BCL3	0.160447	0.841427	0.401031	0.51753	0.399961	0.516563
BCL6	0.695203	3.348316	0.000958	0.003564	0.000919	0.003425
BCL6B	0.16505	2.052291	0.041336	0.084443	0.04752	0.095161
BCL7A	0.213866	1.109801	0.268307	0.378578	0.267147	0.377167
BCL7B	0.228704	1.435815	0.152488	0.244857	0.152797	0.245353
BCL9	0.63308	5.348017	2.24E-07	2.51E-06	2.78E-07	3.02E-06
BCR	-0.04274	-0.22655	0.820989	0.87161	0.820618	0.871224
BCS1L	0.28974	1.976281	0.049384	0.098349	0.049957	0.099393
BDKRB2	0.64536	2.457795	0.014759	0.03598	0.014203	0.034714
BDNF	0.459274	1.945017	0.053059	0.104913	0.051933	0.102903
BEX2	0.004852	0.008154	0.993502	0.996115	0.993445	0.996184
BFSP1	-0.10471	-0.54325	0.58751	0.689826	0.586607	0.68978
BICD1	0.220497	1.239009	0.216675	0.322473	0.216105	0.321728
BICD2	0.664708	4.01033	8.33E-05	0.000455	8.29E-05	0.000452
BID	0.372977	1.76442	0.079062	0.145493	0.07798	0.143785
BIK	-0.29757	-0.80507	0.421656	0.537214	0.418176	0.533793
BIN1	0.111738	0.583915	0.559881	0.666694	0.558972	0.665612
BIN2	0.148289	1.170338	0.243143	0.352489	0.246243	0.355122
BIRC2	0.699511	4.433321	1.47E-05	0.000101	1.49E-05	0.000103
BIRC3	0.4738	1.410761	0.159741	0.253993	0.15679	0.250421
BIRC5	0.909003	3.575961	0.00043	0.001823	0.000399	0.001699
BIRC6	0.133013	1.054503	0.29282	0.405496	0.296066	0.408787
BLCAP	0.639866	3.373472	0.000878	0.003324	0.000854	0.003234
BLM	0.029825	0.141719	0.887433	0.919518	0.887037	0.919311
BLMH	0.255473	1.038812	0.300043	0.412944	0.297578	0.409911
BLOC1S1	-0.43124	-2.70049	0.007467	0.020182	0.007502	0.020289
BLVRA	0.218784	0.960942	0.337646	0.452893	0.335526	0.450363
BLVRB	0.530477	2.792795	0.00569	0.016024	0.005579	0.015785

BMP1	0.538714	4.469927	1.26E-05	8.86E-05	1.46E-05	0.000102
BMP2	1.266303	3.103432	0.002166	0.00714	0.001997	0.006672
BMP4	-0.94275	-2.80433	0.005497	0.015612	0.005171	0.014828
BMP7	-0.58338	-2.69723	0.007538	0.020316	0.007305	0.019836
BMPR1A	0.55555	2.412531	0.01667	0.03979	0.01618	0.038739
BMPR2	1.063966	6.156178	3.54E-09	6.23E-08	3.37E-09	6.04E-08
BNIP1	-0.22629	-1.5066	0.133362	0.220317	0.134138	0.221043
BNIP2	0.481881	3.164317	0.001776	0.006015	0.001805	0.006111
BNIP3L	0.973306	5.793759	2.39E-08	3.38E-07	2.32E-08	3.29E-07
BPGM	0.824774	3.876986	0.00014	0.000709	0.000132	0.000674
BRAF	1.275611	6.099401	4.79E-09	7.99E-08	4.18E-09	7.19E-08
BRCA1	0.379833	2.239354	0.026143	0.057749	0.026069	0.057681
BRCA2	0.647882	2.936762	0.003673	0.011122	0.003533	0.010755
BRD1	-0.13567	-0.79227	0.429064	0.544733	0.428799	0.544691
BRD2	0.588678	4.140662	4.95E-05	0.000292	5.21E-05	0.000302
BRD4	0.787695	6.598373	3.11E-10	7.53E-09	4.14E-10	9.77E-09
BRD8	-0.34532	-2.79264	0.005693	0.016024	0.006045	0.016961
BRE	0.196409	1.74621	0.082183	0.149482	0.085496	0.15467
BRF1	-0.12846	-1.28333	0.20074	0.305037	0.207949	0.312756
BRI3	0.419349	2.152742	0.032437	0.068953	0.031985	0.068145
BSCL2	-0.15097	-0.71332	0.476413	0.589713	0.474824	0.588229
BSG	-0.16304	-0.7127	0.476794	0.589772	0.474839	0.588229
BST1	-0.17321	-0.46887	0.639632	0.734491	0.63712	0.732287
BST2	-0.01435	-0.03871	0.969156	0.979324	0.968924	0.979132
BTAF1	-0.22864	-1.43037	0.154043	0.2471	0.154325	0.247214
BTBD6	0.369659	2.297327	0.022549	0.051273	0.022614	0.051395
BTC	0.250245	1.035828	0.30143	0.414489	0.299039	0.411557
BTD	0.629279	3.693196	0.00028	0.001268	0.000277	0.001251
BTF3	0.764527	5.80073	2.30E-08	3.29E-07	2.65E-08	3.73E-07
BTG1	-0.57737	-2.81662	0.005299	0.015145	0.005149	0.014774
BTG2	0.955376	3.772247	0.000208	0.000985	0.000192	0.000917
BTG3	-0.02467	-0.08112	0.935418	0.956192	0.934993	0.955942
BTK	0.192209	1.137059	0.256762	0.365802	0.256591	0.365508
BTN2A1	0.111752	0.948986	0.343679	0.459391	0.34805	0.46403
BTN2A2	0.500534	3.416382	0.000757	0.002947	0.000779	0.00302
BTN3A1	0.068127	0.458124	0.64732	0.74056	0.648068	0.74128
BTN3A2	0.397323	1.246325	0.213983	0.319276	0.210856	0.315915
BTN3A3	0.100046	0.376352	0.707021	0.788001	0.705422	0.786759
BTNL9	0.718576	4.025942	7.83E-05	0.00043	7.64E-05	0.00042
BUB1	0.332703	1.955391	0.051815	0.102611	0.051692	0.102511
BYSL	0.152336	0.723979	0.469855	0.58452	0.468284	0.583378

C10orf10	0.163697	0.488603	0.625614	0.721744	0.623163	0.719623
C10orf11	1.10219	3.888995	0.000134	0.000682	0.000121	0.000628
C10orf116	0.222934	0.475903	0.63462	0.730263	0.631833	0.72749
C10orf12	0.701944	6.129427	4.08E-09	7.05E-08	5.55E-09	9.15E-08
C10orf26	0.50553	3.863119	0.000148	0.000742	0.00016	0.000791
C10orf58	0.468474	1.329655	0.185022	0.286147	0.181823	0.281943
C10orf72	0.87083	8.074428	4.56E-14	3.41E-12	8.08E-14	5.76E-12
C10orf78	0.51428	2.270106	0.024179	0.054269	0.023563	0.053217
C11orf31	0.468433	3.069791	0.002414	0.007847	0.00245	0.007936
C13orf23	-0.22435	-1.26778	0.20623	0.310867	0.205709	0.310082
C14orf102	0.095239	0.832926	0.405798	0.522101	0.410565	0.526941
C14orf106	0.177077	0.809309	0.41922	0.535271	0.417371	0.5332
C14orf118	0.185557	1.288758	0.198848	0.302392	0.2002	0.304412
C14orf2	-0.13358	-0.82463	0.410483	0.526692	0.410694	0.526962
C14orf45	0.11247	0.7882	0.431436	0.547448	0.432936	0.548696
C14orf79	-0.13113	-1.02008	0.30882	0.422302	0.311788	0.425618
C15orf29	0.31547	1.312382	0.190771	0.293675	0.188598	0.290626
C16orf7	0.272731	1.550505	0.122471	0.205429	0.122073	0.204982
C18orf1	0.247443	1.403265	0.161961	0.256561	0.1615	0.256004
C18orf10	-0.08759	-0.38397	0.701372	0.784308	0.700119	0.783094
C19orf10	-0.02801	-0.15449	0.877368	0.910494	0.877184	0.910304
C19orf18	0.376246	1.772902	0.077641	0.143542	0.076558	0.141885
C19orf2	0.214661	0.640951	0.522228	0.632922	0.51928	0.630976
C19orf24	0.183985	1.350063	0.178396	0.27743	0.18032	0.279895
C19orf28	0.012508	0.104878	0.916569	0.942848	0.917284	0.943082
C1orf35	0.037932	0.318055	0.750748	0.821923	0.752822	0.823618
C1orf9	0.461394	2.719725	0.00706	0.019259	0.007029	0.019226
C1QA	0.189866	0.836327	0.403887	0.520358	0.401837	0.518131
C1QB	-0.04172	-0.16947	0.865588	0.903256	0.864907	0.902746
C1QL1	0.16465	1.624115	0.105796	0.182944	0.111185	0.190579
C1R	0.752232	4.084087	6.22E-05	0.000352	6.01E-05	0.00034
C1RL	0.641679	3.923244	0.000117	0.000607	0.000117	0.000608
C1S	-0.15616	-0.62083	0.535361	0.644353	0.533201	0.642181
C2	-0.75886	-3.23248	0.001417	0.004983	0.001344	0.004768
C20orf103	0.152887	0.341414	0.733121	0.808842	0.731036	0.807111
C20orf111	0.420954	2.621725	0.009365	0.02448	0.0094	0.024512
C20orf24	0.308737	2.077755	0.038903	0.080371	0.039332	0.081079
C20orf3	0.700705	3.802334	0.000186	0.000894	0.000181	0.000877
C20orf4	0.665305	6.154677	3.57E-09	6.23E-08	5.24E-09	8.70E-08
C20orf7	-0.16122	-1.04753	0.296015	0.409197	0.296735	0.409316
C21orf2	0.151505	1.456296	0.146749	0.237181	0.152477	0.245174

C21orf33	-0.03949	-0.24958	0.803144	0.858489	0.803324	0.858876
C21orf63	0.677582	2.041102	0.042445	0.08648	0.041005	0.083975
C21orf7	1.411287	5.732056	3.28E-08	4.52E-07	2.77E-08	3.87E-07
C21orf70	0.640128	5.494602	1.09E-07	1.31E-06	1.38E-07	1.63E-06
C3AR1	0.246887	1.497534	0.135701	0.223083	0.135732	0.222901
C3orf1	0.099902	0.629355	0.529776	0.639925	0.53013	0.639038
C3orf19	0.960963	5.257552	3.48E-07	3.71E-06	3.29E-07	3.50E-06
C4BPB	2.11027	4.802343	2.91E-06	2.40E-05	2.42E-06	2.04E-05
C4orf14	0.176934	1.230854	0.219704	0.32595	0.221112	0.327831
C5	-0.80211	-1.93707	0.054029	0.106339	0.052155	0.103213
C5orf13	-0.26248	-1.29663	0.19613	0.299662	0.194753	0.297962
C5orf15	0.006707	0.061811	0.95077	0.967187	0.951372	0.967637
C6	1.55358	3.042126	0.002637	0.008427	0.002425	0.007877
C6orf1	-0.16621	-1.1399	0.255579	0.364448	0.256868	0.365707
C6orf108	-0.28378	-1.159	0.247726	0.356713	0.245332	0.354113
C6orf129	0.311556	1.922736	0.055816	0.109352	0.055909	0.109647
C6orf130	0.319908	1.396032	0.164125	0.259464	0.162246	0.25684
C6orf153	-0.14497	-0.66638	0.505871	0.61852	0.504206	0.616967
C6orf35	0.641937	5.664305	4.63E-08	6.17E-07	6.15E-08	7.94E-07
C6orf64	0.310951	1.593332	0.112535	0.192542	0.111595	0.191004
C6orf89	0.749755	5.164314	5.43E-07	5.53E-06	5.75E-07	5.84E-06
C7	-0.18359	-0.42526	0.671065	0.759818	0.668582	0.757554
C7orf26	0.384253	3.237359	0.001395	0.004911	0.001529	0.005317
C9orf114	0.448284	3.807765	0.000182	0.00088	0.000207	0.000973
C9orf23	0.565485	2.858721	0.004666	0.013647	0.004549	0.013345
C9orf3	0.48997	1.902785	0.058386	0.113593	0.057011	0.111276
CA1	0.102041	0.35949	0.719577	0.798774	0.717917	0.797459
CA11	0.873556	3.807636	0.000182	0.00088	0.00017	0.000833
CA12	0.598714	1.272957	0.204389	0.308884	0.20068	0.304945
CA2	-1.02161	-2.15285	0.032429	0.068953	0.031021	0.066394
CA3	1.70335	5.010033	1.12E-06	1.07E-05	9.39E-07	9.11E-06
CA8	0.029726	0.118996	0.905388	0.93462	0.904895	0.934111
CA9	-0.39887	-0.82305	0.41138	0.527554	0.407501	0.523437
CAB39L	1.084967	3.770935	0.000209	0.000988	0.000191	0.000913
CABIN1	-0.11789	-0.82	0.41311	0.529484	0.414544	0.530482
CABYR	0.376872	1.80667	0.072193	0.135343	0.071208	0.133968
CACNA1A	0.532174	1.916114	0.056659	0.110772	0.055176	0.108423
CACNA1C	-0.0146	-0.0972	0.922657	0.946212	0.922816	0.946374
CACNA1D	0.545886	2.204831	0.028511	0.062067	0.027695	0.060627
CACNA1H	0.278609	2.656781	0.008473	0.022437	0.009392	0.024511
CACNA1I	-0.6608	-5.67575	4.37E-08	5.85E-07	5.64E-08	7.36E-07

CACNA2D1	1.214478	4.936289	1.58E-06	1.41E-05	1.39E-06	1.28E-05
CACNA2D2	0.693013	2.893526	0.004196	0.012487	0.004012	0.012033
CACNA2D3	-0.80579	-2.79704	0.005618	0.01586	0.005323	0.015201
CACNA2D4	-0.65552	-3.68928	0.000284	0.001281	0.000278	0.001253
CACNB1	0.104182	0.988537	0.323985	0.438196	0.330536	0.445517
CACNB3	-0.17789	-0.99262	0.321997	0.436372	0.321348	0.435255
CACYBP	0.087252	0.56604	0.571949	0.677289	0.572515	0.677823
CAD	-0.06637	-0.64099	0.522203	0.632922	0.528159	0.637644
CALCRL	1.937727	7.530136	1.33E-12	6.06E-11	9.81E-13	4.61E-11
CALD1	-0.38265	-1.85114	0.065503	0.125018	0.0646	0.123473
CALM2	0.285464	4.440088	1.43E-05	9.86E-05	3.52E-05	0.000217
CALM3	-0.13286	-0.81757	0.414497	0.530947	0.414679	0.530482
CALR	0.59205	2.797386	0.005613	0.015853	0.005439	0.015456
CAMK1	0.002869	0.024508	0.98047	0.987191	0.980651	0.987373
CAMK1D	0.51285	2.392685	0.017574	0.041548	0.017147	0.040614
CAMK2B	0.303576	2.137283	0.033689	0.071105	0.034271	0.072134
CAMK2D	-0.04929	-0.2246	0.822503	0.872545	0.821804	0.872017
CAMKK2	0.123783	0.932346	0.352189	0.467596	0.354685	0.469983
CAMP	0.708708	3.813767	0.000178	0.000864	0.000173	0.000843
CANX	0.029828	0.161144	0.872129	0.906158	0.871898	0.906018
CAP2	0.954683	3.708892	0.000264	0.001203	0.000244	0.001128
CAPN1	-0.11042	-1.03405	0.30226	0.415387	0.308525	0.422514
CAPN12	0.197103	0.657483	0.511564	0.623535	0.508816	0.621152
CAPN2	0.132163	0.822656	0.411603	0.527696	0.411889	0.528063
CAPN3	-0.15135	-0.77519	0.439068	0.555035	0.43788	0.553376
CAPN5	0.287161	1.222878	0.222696	0.329868	0.220528	0.327069
CAPN7	0.571778	3.428455	0.000726	0.002863	0.000723	0.002838
CAPN9	-0.48214	-1.24913	0.212956	0.318046	0.209464	0.31443
CAPNS1	-0.22627	-1.47216	0.142421	0.231298	0.143017	0.232266
CAPS	-1.3738	-4.0524	7.05E-05	0.000393	6.25E-05	0.000352
CAPZA3	-0.33064	-2.12926	0.034354	0.072244	0.034574	0.072641
CAPZB	0.396919	2.964567	0.003368	0.010333	0.00352	0.01073
CARD11	-0.34616	-2.09741	0.03711	0.077209	0.037113	0.077249
CARHSP1	0.491479	3.738121	0.000237	0.001097	0.000255	0.001167
CARS	-1.12738	-5.81305	2.16E-08	3.10E-07	1.96E-08	2.83E-07
CASC3	-0.0983	-0.35807	0.720636	0.799396	0.719042	0.798181
CASK	0.612693	2.331236	0.020654	0.047655	0.019944	0.04622
CASP1	0.238033	0.770021	0.442121	0.557765	0.439073	0.554593
CASP10	0.455142	5.303211	2.79E-07	3.04E-06	5.14E-07	5.30E-06
CASP2	0.219411	1.27753	0.202774	0.307328	0.202483	0.306397
CASP3	-0.31352	-2.39917	0.017274	0.041003	0.017894	0.042072

CASP4	-0.30298	-1.9741	0.049633	0.098761	0.049971	0.099393
CASP7	0.235526	1.012253	0.312539	0.426396	0.310313	0.424221
CASP9	0.2924	1.970076	0.050096	0.099556	0.050608	0.100574
CASQ2	0.061758	0.167271	0.867311	0.904338	0.866325	0.90388
CAST	0.152489	0.882074	0.378708	0.495664	0.378354	0.494787
CAT	-0.15715	-0.5964	0.551524	0.658578	0.549273	0.65639
CAV2	0.946024	2.95889	0.003428	0.01049	0.003212	0.009951
CBFA2T2	-0.16363	-1.00078	0.318045	0.432026	0.318173	0.431576
CBFB	-0.04744	-0.31136	0.755821	0.825938	0.75623	0.825809
CBL	0.078484	0.26961	0.787715	0.846869	0.786402	0.846368
CBR1	-0.87962	-3.54582	0.000479	0.001999	0.000447	0.001885
CBR3	-0.19226	-0.61116	0.541731	0.650535	0.538993	0.647728
CBR4	-0.7245	-3.48993	0.000585	0.002378	0.000559	0.002286
CBS	-0.32926	-1.06334	0.288805	0.401355	0.285584	0.397349
CBX1	0.380846	2.455331	0.014858	0.036183	0.014979	0.036437
CBX3	0.877337	5.095658	7.52E-07	7.52E-06	7.31E-07	7.31E-06
CBX5	0.647085	3.509843	0.000545	0.00223	0.000531	0.002189
CBX6	0.603699	3.868946	0.000144	0.00073	0.000146	0.000734
CBX7	0.161846	0.962052	0.337089	0.452275	0.336961	0.451716
CCBL1	0.332563	2.837515	0.004976	0.014417	0.005376	0.015304
CCL11	0.824162	1.587892	0.11376	0.193863	0.110734	0.190015
CCL13	0.540927	2.736462	0.006722	0.018518	0.006567	0.018155
CCL16	1.074164	8.000891	7.24E-14	4.93E-12	8.70E-14	6.01E-12
CCL18	1.28878	2.599324	0.009979	0.02584	0.009372	0.024472
CCL19	-0.64248	-1.45261	0.14777	0.238667	0.144518	0.23438
CCL20	0.89731	1.442342	0.150641	0.24247	0.147098	0.237826
CCL23	0.29835	0.977139	0.329584	0.444234	0.326389	0.441067
CCL26	0.524886	1.126344	0.261258	0.371083	0.257355	0.366129
CCL5	-0.48113	-1.7021	0.090162	0.161371	0.088193	0.158572
CCM2	-0.24714	-2.00742	0.045939	0.092468	0.047565	0.095211
CCNA2	0.004466	0.02324	0.98148	0.987997	0.981436	0.987952
CCNB2	0.006042	0.056108	0.955308	0.970048	0.955868	0.97032
CCNC	0.262797	1.537856	0.125534	0.209893	0.125318	0.209382
CCND1	-0.2536	-0.69132	0.490098	0.602055	0.486856	0.598542
CCND2	-1.28743	-3.22188	0.001468	0.005131	0.001347	0.004775
CCND3	-0.84067	-4.51692	1.03E-05	7.41E-05	9.82E-06	7.16E-05
CCNE2	0.357425	1.374543	0.170684	0.267941	0.168312	0.26511
CCNF	0.036794	0.276289	0.782588	0.843422	0.783671	0.844438
CCNG1	0.137771	0.650216	0.516237	0.628253	0.51472	0.626894
CCNH	0.285387	1.814641	0.070954	0.133821	0.071231	0.133968
CCNI	0.52312	4.3749	1.88E-05	0.000126	2.19E-05	0.000143

CCNK	0.214006	1.965921	0.050577	0.100385	0.053392	0.10535
CCNL1	-0.67681	-3.88964	0.000133	0.000681	0.000131	0.00067
CCNL2	-0.17794	-1.10491	0.270418	0.381214	0.270683	0.381129
CCNT1	1.055139	6.554254	3.98E-10	9.40E-09	3.94E-10	9.45E-09
CCNT2	0.56712	4.908681	1.80E-06	1.58E-05	2.21E-06	1.89E-05
CCR1	1.352764	7.157491	1.24E-11	4.73E-10	1.08E-11	4.17E-10
CCRL1	0.789501	1.916267	0.056639	0.110772	0.054714	0.107776
CCS	0.970503	5.620259	5.79E-08	7.56E-07	5.57E-08	7.32E-07
CCT2	-0.3295	-1.52736	0.128122	0.213309	0.126661	0.211224
CCT4	0.239584	2.65143	0.008604	0.022756	0.010099	0.026108
CCT5	-0.33597	-1.51475	0.131283	0.217801	0.129692	0.215314
CCT6A	0.517041	3.14589	0.001887	0.006371	0.001886	0.006347
CCT6B	0.760146	3.205574	0.00155	0.005385	0.00147	0.005154
CCT7	-0.06395	-0.54487	0.586402	0.689368	0.589838	0.69254
CCT8	-0.03207	-0.32682	0.74412	0.816951	0.748293	0.820322
CD14	0.111159	0.47578	0.634707	0.730263	0.633136	0.728455
CD163	0.408109	1.632224	0.104076	0.180826	0.102265	0.178156
CD19	-0.76066	-2.91092	0.003978	0.011923	0.003777	0.0114
CD1A	0.483715	2.094745	0.037349	0.077672	0.036487	0.076048
CD1C	-0.22971	-1.02416	0.306896	0.420405	0.304846	0.418207
CD1D	0.126312	0.457958	0.647439	0.74056	0.645472	0.739328
CD2	-0.91042	-4.84972	2.35E-06	1.98E-05	2.22E-06	1.90E-05
CD200	0.562486	2.175047	0.030702	0.065861	0.029786	0.064257
CD22	-0.51014	-3.40717	0.000782	0.003012	0.000799	0.003086
CD226	-0.25394	-1.74003	0.083266	0.150867	0.084083	0.152642
CD2AP	0.387245	2.862821	0.004608	0.013512	0.004792	0.013929
CD33	0.569814	3.271145	0.001245	0.00444	0.00123	0.004407
CD34	0.505424	2.553474	0.011348	0.028738	0.011115	0.02827
CD36	1.604413	3.482908	0.000599	0.002428	0.00054	0.00222
CD37	-0.86321	-3.99479	8.86E-05	0.000477	8.29E-05	0.000452
CD38	0.023895	0.081473	0.93514	0.956192	0.934727	0.955878
CD3D	-0.63247	-3.79494	0.000191	0.000918	0.00019	0.000913
CD3E	0.090576	0.428972	0.668367	0.757779	0.667253	0.756413
CD3G	0.050987	0.252739	0.800708	0.856577	0.800119	0.856352
CD4	0.092589	0.95719	0.339532	0.454903	0.348083	0.46403
CD40	-0.15211	-0.58175	0.561333	0.667915	0.559141	0.665644
CD44	0.00863	0.026645	0.978767	0.986328	0.97862	0.986232
CD48	-0.50282	-3.82299	0.000172	0.000836	0.000185	0.000896
CD5	-0.14962	-1.04367	0.297794	0.410931	0.299306	0.411688
CD53	-0.04991	-0.54597	0.585645	0.688994	0.593427	0.695018
CD58	0.337015	1.405112	0.161411	0.256209	0.159366	0.253304

CD59	0.469564	2.262601	0.024646	0.055107	0.024156	0.054193
CD6	0.133422	1.022032	0.307899	0.421533	0.310642	0.424547
CD68	1.257797	6.797123	1.01E-10	2.85E-09	9.04E-11	2.64E-09
CD79B	0.313925	2.380321	0.018159	0.042652	0.01877	0.043913
CD80	0.199775	1.04244	0.298362	0.411232	0.297229	0.40967
CD81	0.506302	3.563566	0.000449	0.001893	0.000468	0.001954
CD83	0.100204	0.472694	0.636905	0.732074	0.635685	0.730851
CD86	0.982092	5.97358	9.35E-09	1.45E-07	9.19E-09	1.46E-07
CD8A	-0.803	-2.90516	0.004049	0.012105	0.003831	0.011527
CD9	-0.44864	-1.55909	0.120425	0.202576	0.118111	0.199547
CD97	0.243757	1.032121	0.303159	0.416378	0.300867	0.413593
CD99	-0.51085	-2.47055	0.014257	0.034883	0.01393	0.03426
CD99L2	-0.1288	-1.08759	0.277977	0.389184	0.282232	0.393617
CDA	-0.18611	-0.50313	0.615383	0.71274	0.61273	0.710368
CDC14A	0.164623	1.185798	0.236993	0.344957	0.238842	0.347111
CDC16	0.351701	1.877426	0.061795	0.119032	0.06126	0.118097
CDC23	1.00811	6.694306	1.81E-10	4.75E-09	1.89E-10	4.98E-09
CDC25C	-0.00381	-0.02107	0.983213	0.989105	0.983188	0.98908
CDC34	0.006021	0.038503	0.969322	0.979324	0.969358	0.97936
CDC37	-0.0398	-0.29186	0.770668	0.83575	0.771659	0.836567
CDC37L1	0.675985	3.048463	0.002585	0.008309	0.002478	0.008009
CDC40	0.592686	4.298905	2.59E-05	0.000165	2.77E-05	0.000175
CDC42	0.15329	0.859746	0.390873	0.506649	0.390279	0.506436
CDC42BPA	0.721588	3.998773	8.72E-05	0.000473	8.48E-05	0.000461
CDC42BPB	0.030426	0.210181	0.833723	0.880214	0.834201	0.880077
CDC42EP1	-0.1412	-0.70467	0.481766	0.594616	0.480478	0.593339
CDC42EP3	0.584544	2.447853	0.015162	0.036788	0.014671	0.035726
CDC5L	0.072325	0.444279	0.657282	0.747996	0.657399	0.747949
CDC6	-0.1209	-0.31532	0.752822	0.823426	0.750994	0.822001
CDCA3	0.320267	1.615393	0.107672	0.185437	0.106679	0.184131
CDCA4	-0.35061	-2.1202	0.03512	0.073459	0.035115	0.073548
CDH1	0.07002	0.156346	0.875905	0.909177	0.874905	0.90834
CDH13	2.095736	7.938584	1.07E-13	7.08E-12	7.58E-14	5.57E-12
CDH15	0.312233	3.178914	0.001693	0.005794	0.002013	0.006713
CDH16	-0.66515	-1.90873	0.057611	0.112307	0.055814	0.109576
CDH17	0.874592	1.564127	0.119238	0.201066	0.116096	0.197199
CDH3	-0.54019	-1.26495	0.207239	0.312086	0.203628	0.307635
CDK2	0.084056	0.423438	0.672393	0.76059	0.671526	0.759477
CDK3	0.367641	2.99648	0.003047	0.009521	0.003269	0.010088
CDK4	0.175179	0.946508	0.344937	0.460439	0.34405	0.459647
CDK5	-0.20844	-1.12458	0.262005	0.371919	0.261114	0.370655

CDK5RAP1	0.178403	1.356032	0.176492	0.275128	0.17884	0.277867
CDK6	-0.15191	-0.42419	0.671846	0.760153	0.669565	0.758485
CDKL5	-0.01816	-0.20984	0.833988	0.880214	0.83792	0.882713
CDKN1A	-0.09645	-0.57623	0.565052	0.671397	0.564989	0.67091
CDKN1B	0.047928	0.238754	0.811521	0.864551	0.810974	0.864304
CDKN1C	0.58071	1.691055	0.092255	0.164679	0.089928	0.161014
CDKN2A	0.609827	1.146381	0.252894	0.361729	0.248879	0.357936
CDKN2C	1.462609	7.544177	1.22E-12	5.67E-11	1.03E-12	4.80E-11
CDKN2D	0.218146	2.083072	0.038411	0.079389	0.041115	0.084055
CDKN3	0.440427	1.54593	0.123572	0.206907	0.121254	0.203825
CDO1	-0.32395	-0.99015	0.323196	0.43738	0.319827	0.433445
CDR2	0.873695	4.299126	2.59E-05	0.000165	2.43E-05	0.000156
CDS1	0.619418	2.678112	0.007968	0.021326	0.007683	0.020682
CDS2	0.865225	6.150618	3.64E-09	6.34E-08	4.01E-09	6.97E-08
CDX1	-0.21356	-0.71782	0.473639	0.588138	0.470781	0.585207
CDX2	0.976436	3.734838	0.00024	0.001108	0.000221	0.001032
CDYL	-0.02589	-0.16262	0.870972	0.905656	0.871075	0.90576
CEACAM1	-0.70192	-2.03651	0.042908	0.087212	0.041423	0.084647
CEACAM5	0.586318	1.489822	0.137716	0.225529	0.134693	0.221582
CEACAM7	-0.39224	-0.65938	0.510351	0.622853	0.506681	0.618867
CEBPG	0.206342	0.866228	0.387317	0.503827	0.385029	0.501702
CECR6	0.752812	4.710102	4.41E-06	3.51E-05	4.43E-06	3.51E-05
CELSR2	0.566548	2.579795	0.010543	0.027092	0.01023	0.026397
CELSR3	1.643096	5.513644	9.89E-08	1.21E-06	8.13E-08	1.01E-06
CENPA	0.914196	4.996441	1.20E-06	1.13E-05	1.14E-06	1.07E-05
CENPB	-0.0323	-0.16687	0.867629	0.904382	0.867305	0.904244
CENPF	0.471107	2.584183	0.010414	0.026775	0.010283	0.026511
CEPT1	0.03181	0.213056	0.831482	0.878791	0.831846	0.879037
CERK	-0.08523	-0.40121	0.688659	0.773774	0.687584	0.772425
CETN2	-0.34385	-1.68758	0.092922	0.165805	0.091886	0.164082
CETP	0.733175	2.659132	0.008416	0.022309	0.008029	0.021442
CFDP1	0.371663	1.251195	0.212204	0.317631	0.209261	0.314226
CFH	1.573116	4.135266	5.06E-05	0.000297	4.43E-05	0.000265
CFLAR	0.527644	2.826115	0.005149	0.014812	0.005057	0.014564
CGGBP1	0.482252	3.689835	0.000283	0.00128	0.000305	0.001353
CGNL1	1.030545	4.57197	8.10E-06	5.95E-05	7.37E-06	5.51E-05
CH25H	0.552035	1.481398	0.139945	0.228541	0.136977	0.224681
CHAD	0.092359	0.404344	0.686357	0.771925	0.685044	0.770449
CHAF1A	0.159223	1.11884	0.26444	0.374357	0.26602	0.376005
CHAF1B	-0.34837	-2.25728	0.024982	0.055673	0.025176	0.056026
CHCHD1	0.183791	0.992319	0.322142	0.436372	0.321247	0.435243

CHCHD5	-0.11567	-0.9102	0.363724	0.479928	0.36684	0.482737
CHD2	0.235251	1.368975	0.172416	0.270209	0.172133	0.269545
CHD3	0.1699	1.206724	0.228846	0.335594	0.230511	0.337435
CHD4	0.674785	4.798538	2.96E-06	2.44E-05	3.17E-06	2.59E-05
CHD6	0.284061	2.474449	0.014107	0.034603	0.015073	0.03663
CHD7	0.042054	0.282351	0.777942	0.839763	0.778427	0.840094
CHEK1	-0.00279	-0.0122	0.990281	0.99433	0.990238	0.994345
CHFR	-0.01128	-0.04245	0.966177	0.977407	0.965983	0.977211
CHGA	-0.39917	-0.77741	0.437761	0.553829	0.433904	0.549541
CHKA	0.02854	0.119435	0.905041	0.934467	0.904582	0.933993
CHN1	0.535272	2.59851	0.010002	0.025885	0.009753	0.025326
CHN2	0.025571	0.093659	0.925466	0.947851	0.925026	0.947444
CHODL	0.981852	3.115759	0.002081	0.006904	0.001939	0.0065
CHORDC1	0.39923	3.108864	0.002128	0.007045	0.00226	0.007424
CHP	0.585077	3.648898	0.00033	0.00145	0.000331	0.001455
CHPT1	-0.72758	-2.19369	0.029314	0.063492	0.028189	0.061422
CHRD2	-0.50282	-1.27753	0.202775	0.307328	0.199299	0.30324
CHRNA10	0.51156	6.713315	1.62E-10	4.29E-09	5.50E-10	1.24E-08
CHST10	0.803859	5.759279	2.85E-08	3.97E-07	3.13E-08	4.33E-07
CHST13	0.563665	3.212886	0.001513	0.005268	0.001494	0.00522
CIB1	-0.53642	-3.03355	0.00271	0.008624	0.002676	0.008534
CIB2	0.37517	1.738482	0.083538	0.151185	0.082353	0.149848
CILP	2.880939	6.221836	2.48E-09	4.68E-08	1.83E-09	3.57E-08
CIRBP	-0.23369	-1.2513	0.212165	0.317631	0.211258	0.316416
CIT	0.275843	1.676754	0.095024	0.168979	0.09506	0.168597
CITED2	-0.44841	-1.60069	0.110893	0.190079	0.108728	0.187119
CIZ1	-0.52504	-3.31852	0.00106	0.003873	0.001069	0.003901
CKAP2	0.173399	1.089725	0.277037	0.388216	0.277418	0.3885
CKAP4	0.404973	1.895142	0.059397	0.115167	0.058447	0.113514
CKB	-0.01116	-0.02748	0.978099	0.986072	0.977928	0.985899
CKLF	-0.26887	-1.36225	0.174525	0.272605	0.173337	0.27075
CKS1B	0.047044	0.263238	0.792616	0.85033	0.792356	0.850634
CKS2	1.102785	4.359491	2.01E-05	0.000133	1.81E-05	0.000122
CLASP1	0.365073	3.380049	0.000859	0.00327	0.00099	0.003648
CLCN2	0.098541	0.533865	0.593979	0.69538	0.593319	0.695018
CLCN3	0.648772	2.699327	0.007493	0.020221	0.007201	0.019619
CLCN4	-0.42829	-1.45217	0.147893	0.238783	0.145304	0.235249
CLCN5	1.661198	6.513226	5.01E-10	1.14E-08	3.98E-10	9.51E-09
CLCN6	0.516082	3.609981	0.00038	0.001632	0.000395	0.001685
CLCN7	0.468375	4.371142	1.91E-05	0.000128	2.40E-05	0.000155
CLDN1	0.763787	1.832679	0.068214	0.129329	0.066054	0.125639

CLDN2	0.846368	1.506673	0.133342	0.220317	0.130034	0.215728
CLDN3	-1.19596	-2.29993	0.022398	0.050979	0.021285	0.048752
CLDN4	0.647133	3.0638	0.002461	0.007982	0.002371	0.007725
CLDN7	0.651528	2.134299	0.033935	0.071522	0.032766	0.069463
CLIC1	0.026741	0.192446	0.847572	0.889141	0.848167	0.889619
CLIC2	0.984212	3.842753	0.00016	0.000787	0.000147	0.000735
CLK2	0.466897	3.451457	0.00067	0.002667	0.000706	0.002787
CLN3	0.157668	0.891904	0.373428	0.490121	0.372894	0.489144
CLN5	0.52539	2.971299	0.003298	0.010178	0.003259	0.010076
CLNS1A	0.148342	0.889526	0.374701	0.491514	0.374652	0.491176
CLOCK	0.435101	4.452198	1.36E-05	9.48E-05	1.86E-05	0.000124
CLPP	-0.20636	-1.68461	0.093496	0.166703	0.096009	0.169895
CLPX	0.712205	5.076041	8.25E-07	8.18E-06	8.90E-07	8.75E-06
CLSPN	0.062402	0.736352	0.462308	0.577271	0.473734	0.587636
CLSTN1	-0.12549	-0.75291	0.452315	0.566902	0.452275	0.566852
CLSTN2	1.106011	5.671747	4.46E-08	5.96E-07	4.06E-08	5.49E-07
CLTA	0.45096	3.253978	0.001319	0.004679	0.001375	0.004862
CLTB	0.066712	0.325039	0.745463	0.818043	0.744668	0.817552
CLTC	-0.04476	-0.54422	0.586849	0.68972	0.597142	0.697264
CMAS	-0.74333	-5.97615	9.22E-09	1.44E-07	1.13E-08	1.74E-07
CMIP	0.916654	5.195605	4.68E-07	4.84E-06	4.49E-07	4.69E-06
CNDP2	0.428835	3.069546	0.002416	0.007847	0.002503	0.008053
CNGB1	0.031138	0.224465	0.822606	0.872545	0.823302	0.87289
CNIH	0.464213	3.368542	0.000893	0.003358	0.000935	0.003477
CNKSR1	0.857781	5.023575	1.05E-06	1.01E-05	1.03E-06	9.90E-06
CNN1	0.071151	0.23285	0.816096	0.867795	0.8149	0.867088
CNN2	0.188537	1.091089	0.276438	0.387723	0.276082	0.386992
CNN3	0.17719	0.716231	0.474615	0.588728	0.472338	0.586453
CNNM4	-0.92743	-4.16356	4.51E-05	0.000269	4.18E-05	0.000253
CNOT1	-0.43839	-2.82421	0.005179	0.01487	0.005231	0.014974
CNOT3	0.04141	0.254043	0.799701	0.856172	0.799769	0.856352
CNOT6L	-0.31064	-1.24231	0.215456	0.321269	0.213052	0.318392
CNOT8	-0.44695	-3.41121	0.000771	0.002982	0.000821	0.003145
CNP	0.500551	3.320548	0.001053	0.003856	0.001074	0.00391
CNTFR	0.25192	1.879298	0.061538	0.118634	0.062799	0.12062
CNTN4	1.67953	6.383179	1.03E-09	2.16E-08	8.19E-10	1.76E-08
CNTNAP1	0.68745	3.337031	0.000996	0.003673	0.000956	0.003539
COASY	0.12331	0.555001	0.579463	0.683604	0.577894	0.682266
COBL	0.37712	1.199471	0.231647	0.338433	0.228494	0.335601
COBLL1	1.122677	6.103076	4.70E-09	7.87E-08	4.33E-09	7.38E-08
COG2	-0.28309	-2.5503	0.011449	0.028915	0.01239	0.031009

COG5	0.229891	0.948094	0.344131	0.459671	0.341729	0.457065
COL11A2	0.329683	1.783307	0.075928	0.141105	0.075383	0.140095
COL13A1	-0.02813	-0.21336	0.831249	0.878791	0.832146	0.879037
COL15A1	1.571456	5.561333	7.79E-08	9.77E-07	6.45E-08	8.23E-07
COL16A1	0.863217	2.655398	0.008506	0.022511	0.008057	0.021504
COL18A1	0.589564	3.231189	0.001424	0.005001	0.001396	0.004921
COL1A2	0.955929	3.36894	0.000892	0.003357	0.000828	0.003161
COL4A1	0.397915	1.943574	0.053234	0.105126	0.052463	0.103691
COL4A2	0.423224	2.208847	0.028227	0.061619	0.027849	0.060852
COL4A3	-0.19894	-2.00513	0.046185	0.092893	0.049811	0.099157
COL4A3BP	0.727622	4.88654	1.99E-06	1.72E-05	2.07E-06	1.78E-05
COL4A4	0.021261	0.048804	0.96112	0.974178	0.960807	0.973861
COL4A5	0.142562	0.626499	0.531643	0.641191	0.529844	0.639038
COL4A6	-0.29309	-1.37569	0.17033	0.267547	0.168754	0.265621
COL5A3	1.193669	6.398758	9.44E-10	2.01E-08	8.56E-10	1.83E-08
COL6A1	0.302165	1.538218	0.125446	0.20982	0.124426	0.208034
COL6A2	0.233779	1.733456	0.084429	0.152562	0.085887	0.155198
COL7A1	1.101958	4.664355	5.40E-06	4.18E-05	4.85E-06	3.80E-05
COL8A1	-1.22396	-4.16403	4.50E-05	0.000269	4.02E-05	0.000245
COL9A1	-0.12844	-0.69657	0.486815	0.598804	0.486041	0.598165
COL9A2	0.76646	4.360496	2.00E-05	0.000132	1.95E-05	0.000129
COL9A3	0.041508	0.094526	0.924778	0.947752	0.924173	0.947342
COLEC10	0.234063	1.841731	0.066873	0.127146	0.068633	0.130019
COMMD10	0.218975	1.810228	0.071637	0.134732	0.073934	0.13812
COMMD3	0.092798	0.532436	0.594966	0.696004	0.594645	0.695751
COMP	-0.87636	-1.55355	0.121741	0.204425	0.118563	0.200016
COMT	-0.14392	-1.12032	0.263812	0.373919	0.26675	0.376834
COPB2	0.134785	1.495213	0.136305	0.22392	0.144884	0.234731
COPG2	-0.14733	-0.93001	0.353396	0.468537	0.353825	0.469369
COPS3	-0.03052	-0.19246	0.847561	0.889141	0.847695	0.889522
COPS4	0.221757	2.911575	0.00397	0.011914	0.005317	0.015191
COPS5	0.137468	0.792735	0.428794	0.544538	0.428429	0.544398
COPS6	0.295897	1.825787	0.06925	0.131029	0.069357	0.131126
COPS7A	-0.07542	-0.48501	0.628155	0.723787	0.628599	0.724121
COPS8	0.798082	6.089711	5.05E-09	8.25E-08	5.91E-09	9.67E-08
COPZ1	-0.0003	-0.00236	0.998119	0.998969	0.99813	0.998981
COPZ2	0.809922	6.666878	2.11E-10	5.49E-09	2.76E-10	6.92E-09
COQ7	0.212362	1.169332	0.243547	0.352967	0.242813	0.351577
CORO1A	-1.80345	-10.1713	3.89E-20	1.02E-17	3.13E-20	8.16E-18
CORO1C	0.00845	0.053172	0.957643	0.971516	0.957679	0.971529
CORO2A	-0.533	-1.85785	0.064539	0.123507	0.062881	0.120727

COX11	0.507332	2.85019	0.004788	0.013935	0.004731	0.013786
COX15	0.418198	2.353199	0.019503	0.0454	0.019346	0.045102
COX17	-0.56719	-3.86236	0.000148	0.000742	0.000153	0.000765
COX5A	-0.07983	-0.59522	0.552315	0.65902	0.554264	0.661345
COX5B	-0.40156	-3.10628	0.002146	0.007089	0.002275	0.007465
COX6A1	-0.22814	-2.22234	0.027287	0.05993	0.029591	0.064003
COX6B1	-0.087	-0.56452	0.57298	0.678169	0.573548	0.67884
COX6C	0.119072	0.868426	0.386116	0.503118	0.388153	0.504513
COX7A1	-0.1993	-1.09184	0.27611	0.387494	0.275326	0.386182
COX7A2	0.501755	3.729304	0.000245	0.001129	0.000261	0.001191
COX7C	0.04366	0.398646	0.690544	0.774893	0.694024	0.777981
COX8A	-0.02532	-0.18138	0.856234	0.896281	0.856779	0.896851
CP	-0.32549	-0.56985	0.569369	0.674914	0.566041	0.671647
CPA3	2.614837	5.40907	1.66E-07	1.94E-06	1.31E-07	1.55E-06
CPD	0.935009	3.534828	0.000498	0.00207	0.000462	0.001939
CPM	1.390658	4.449823	1.37E-05	9.53E-05	1.20E-05	8.54E-05
CPNE3	0.073173	0.310727	0.756305	0.826028	0.755192	0.825251
CPNE6	0.328583	3.1085	0.002131	0.007048	0.002432	0.007887
CPNE8	1.523382	5.362789	2.08E-07	2.35E-06	1.74E-07	2.01E-06
CPS1	3.188931	5.87325	1.58E-08	2.30E-07	1.19E-08	1.80E-07
CPSF1	-0.51845	-2.59438	0.010119	0.026146	0.009896	0.025654
CPSF2	0.475357	2.879808	0.004376	0.012951	0.004373	0.012903
CPSF4	0.653252	4.152091	4.73E-05	0.000281	4.78E-05	0.000282
CPSF6	0.146524	0.64161	0.521801	0.632922	0.519961	0.631285
CPT1A	0.834443	3.641414	0.000339	0.001485	0.000318	0.001405
CPVL	1.179276	2.731433	0.006822	0.01866	0.006388	0.017704
CRABP2	1.629122	3.863195	0.000148	0.000742	0.000131	0.000668
CRADD	-0.57782	-4.1108	5.58E-05	0.000323	5.90E-05	0.000336
CREB3L4	0.020744	0.084677	0.932596	0.953907	0.932255	0.953679
CREB5	0.795069	2.862484	0.004613	0.013517	0.00437	0.012903
CREBBP	0.918705	8.210392	1.93E-14	1.65E-12	3.20E-14	2.68E-12
CREG1	0.544416	3.520772	0.000524	0.002156	0.000532	0.002189
CRELD1	0.726097	3.904763	0.000126	0.000648	0.000122	0.00063
CRHBP	0.310806	1.888676	0.060263	0.116558	0.060285	0.116505
CRHR1	0.051767	0.50508	0.614013	0.711558	0.619251	0.716161
CRIP1	0.076394	0.194969	0.845599	0.887853	0.844422	0.887077
CRIP2	0.159118	0.639046	0.523464	0.633929	0.521301	0.631986
CRIPT	0.776906	4.788335	3.10E-06	2.54E-05	3.10E-06	2.54E-05
CRISP1	-0.14474	-2.17274	0.030878	0.066043	0.039188	0.080817
CRTAP	0.916309	5.499757	1.06E-07	1.29E-06	1.04E-07	1.26E-06
CRY1	0.776293	3.685696	0.000288	0.001292	0.000273	0.001241

CRYAB	0.104995	0.460947	0.645296	0.73991	0.643845	0.738247
CRYBA4	0.394088	3.135937	0.001949	0.006544	0.002086	0.006919
CRYBB1	0.304914	2.227499	0.026936	0.059269	0.027584	0.060468
CRYM	1.061323	3.425549	0.000733	0.002888	0.000674	0.002696
CRYZL1	0.283022	1.498974	0.135327	0.222642	0.134487	0.221399
CS	-0.13319	-0.81363	0.416747	0.532548	0.416862	0.532695
CSAD	1.082499	7.101912	1.72E-11	6.21E-10	1.77E-11	6.40E-10
CSDA	-0.15494	-1.0485	0.295567	0.408779	0.296727	0.409316
CSE1L	0.12102	0.688543	0.491843	0.603724	0.491403	0.603185
CSF1R	0.488538	2.947886	0.003548	0.010793	0.003543	0.010773
CSF2	0.302117	2.072867	0.03936	0.081102	0.039882	0.082105
CSF2RB	0.415718	1.763041	0.079295	0.145597	0.077876	0.143649
CSF3R	1.05162	4.782468	3.19E-06	2.59E-05	2.89E-06	2.38E-05
CSNK1A1	0.409003	2.545737	0.011595	0.029214	0.011636	0.029346
CSNK1G3	0.586189	3.713428	0.00026	0.001188	0.000262	0.001197
CSNK2A1	0.214548	1.336337	0.182832	0.283414	0.183096	0.283729
CSNK2A2	0.252106	1.932551	0.054587	0.107347	0.055952	0.109664
CSNK2B	-0.24487	-1.7208	0.086706	0.156137	0.087737	0.157872
CSPG4	0.712577	3.42124	0.000744	0.002912	0.000712	0.002809
CSPG5	0.357443	2.039874	0.042569	0.086687	0.042355	0.086214
CSRP1	0.641245	3.905927	0.000125	0.000646	0.000125	0.000644
CSRP2	0.18898	0.610473	0.542184	0.650895	0.539482	0.648151
CSRP2BP	0.257423	1.534338	0.126396	0.21096	0.126303	0.21088
CST3	-0.01865	-0.13245	0.894747	0.926076	0.895125	0.926467
CST7	-0.79155	-3.75971	0.000219	0.001021	0.000207	0.000973
CSTA	-0.82922	-1.9978	0.046981	0.094235	0.045262	0.091341
CSTF1	0.561753	3.856747	0.000151	0.000757	0.000157	0.00078
CSTF2	0.442702	2.610117	0.009679	0.02516	0.00964	0.025082
CSTF3	-0.73274	-3.30375	0.001115	0.004031	0.001062	0.003881
CTBP1	-0.10568	-0.58542	0.558869	0.665657	0.558301	0.665121
CTDP1	0.204365	1.585318	0.114344	0.194504	0.116526	0.197644
CTDSP2	0.741923	5.577529	7.19E-08	9.11E-07	8.15E-08	1.01E-06
CTDSPL	0.096491	0.503233	0.615309	0.71274	0.614481	0.711871
CTF1	0.798762	4.06688	6.66E-05	0.000375	6.34E-05	0.000356
CTGF	0.742914	2.277542	0.023724	0.053317	0.022763	0.051708
CTH	0.315148	0.931359	0.352698	0.467875	0.349268	0.465032
CTNNA1	0.008807	0.045227	0.963968	0.975382	0.963876	0.975499
CTNNAL1	0.659411	2.7412	0.00663	0.018329	0.006364	0.017666
CTNNB1	0.000179	0.000563	0.999551	0.999764	0.999548	0.999761
CTNND1	0.412545	2.641333	0.008856	0.023358	0.008927	0.023492
CTNS	1.078198	6.317917	1.47E-09	2.93E-08	1.41E-09	2.83E-08

CTRL	0.070098	0.533764	0.594048	0.69538	0.596081	0.696911
CTSC	0.047909	0.194988	0.845584	0.887853	0.844807	0.887283
CTSD	-0.14379	-0.71447	0.475699	0.589641	0.474378	0.587968
CTSE	-1.35793	-2.83437	0.005023	0.01451	0.004671	0.013645
CTSF	0.947861	4.740407	3.85E-06	3.09E-05	3.58E-06	2.90E-05
CTSG	1.333372	3.961497	0.000101	0.000535	8.99E-05	0.000484
CTSH	0.724306	2.205967	0.028431	0.061949	0.027336	0.060037
CTSK	0.801716	3.168703	0.001751	0.005942	0.001652	0.005566
CTSL2	1.593576	4.063523	6.75E-05	0.000379	5.92E-05	0.000336
CTSO	0.412556	2.039405	0.042616	0.086708	0.041975	0.085552
CTSS	0.336035	1.449361	0.148674	0.239879	0.146819	0.237457
CTSZ	1.134454	7.371211	3.47E-12	1.46E-10	3.54E-12	1.50E-10
CTTN	1.13332	4.290558	2.68E-05	0.00017	2.40E-05	0.000155
CUL1	-0.22568	-2.02939	0.043634	0.088397	0.046011	0.092692
CUL2	0.448519	2.735094	0.00675	0.018531	0.006753	0.018562
CUL4A	-0.3502	-1.35458	0.176955	0.275576	0.174572	0.272588
CUL4B	1.341452	7.929443	1.13E-13	7.30E-12	1.05E-13	7.13E-12
CUL5	0.759946	4.727745	4.07E-06	3.27E-05	4.09E-06	3.26E-05
CUL7	0.057924	0.433606	0.665003	0.754409	0.666583	0.755926
CWF19L2	0.872592	7.923108	1.18E-13	7.39E-12	1.97E-13	1.20E-11
CXADR	-0.20886	-0.52902	0.59733	0.697503	0.594492	0.695745
CXCL1	0.028829	0.058215	0.953631	0.969332	0.953243	0.969058
CXCL10	-1.37192	-2.7892	0.005751	0.016167	0.005357	0.015273
CXCL12	1.830196	5.710148	3.67E-08	4.97E-07	2.94E-08	4.09E-07
CXCL14	0.403888	0.813691	0.41671	0.532548	0.412821	0.529113
CXCL6	0.201971	0.349977	0.726694	0.804017	0.724427	0.802075
CXCR6	-0.24244	-1.29146	0.197914	0.301619	0.19699	0.300601
CXXC1	-0.16656	-1.20146	0.230876	0.337622	0.232732	0.339913
CYB561	0.330457	2.056027	0.040971	0.083869	0.041077	0.084014
CYB561D2	0.280136	1.48461	0.139092	0.227385	0.138245	0.22608
CYBA	-0.25966	-1.93133	0.054739	0.1076	0.055893	0.109647
CYBASC3	0.109635	0.757005	0.449865	0.564885	0.451175	0.565775
CYC1	-0.22955	-1.22296	0.222664	0.329868	0.221713	0.328412
CYCS	0.157793	0.580715	0.562032	0.668578	0.559733	0.666011
CYFIP2	-0.88257	-3.37712	0.000867	0.003295	0.00081	0.003116
CYorf15B	1.118735	3.468084	0.000631	0.002541	0.000578	0.002355
CYP27A1	0.007274	0.036281	0.971092	0.980479	0.971007	0.980394
CYP27B1	1.532619	4.373891	1.89E-05	0.000126	1.64E-05	0.000111
CYP2B6	0.297855	0.965551	0.335339	0.450462	0.332119	0.447009
CYP2E1	-0.46729	-1.15504	0.24934	0.358548	0.24565	0.354376
CYP2J2	-0.32728	-0.95951	0.338362	0.453595	0.334905	0.450115

CYP2S1	-0.51705	-1.40348	0.161895	0.256561	0.158768	0.252798
CYP39A1	0.27969	0.775787	0.438716	0.554739	0.435328	0.550752
CYP3A4	0.596194	2.900787	0.004104	0.012238	0.00398	0.011953
CYP3A5	-1.88642	-4.15231	4.72E-05	0.000281	4.09E-05	0.000248
CYP4B1	-0.12835	-0.30723	0.758964	0.827833	0.757113	0.826581
CYP4F11	0.118332	0.278691	0.780746	0.842016	0.779042	0.840565
CYP4F8	-0.33288	-2.30333	0.022203	0.050651	0.022581	0.05137
CYP51A1	0.642612	1.776311	0.077076	0.14279	0.074902	0.139477
CYP7B1	-0.28755	-1.30499	0.193272	0.296372	0.191466	0.29389
CYR61	1.191698	3.398912	0.000804	0.003089	0.000736	0.002884
CYYR1	1.831937	10.70542	9.15E-22	3.31E-19	7.48E-22	2.70E-19
D4S234E	0.640707	3.195443	0.001603	0.005548	0.00155	0.00537
DAB2	0.441566	1.921632	0.055956	0.10958	0.054856	0.107966
DACH1	0.831534	1.914197	0.056904	0.111114	0.054937	0.108079
DACT1	0.103751	0.347055	0.728885	0.805303	0.727193	0.803938
DAD1	0.629295	4.726677	4.09E-06	3.28E-05	4.52E-06	3.57E-05
DAG1	0.996281	5.652878	4.91E-08	6.52E-07	4.68E-08	6.21E-07
DAP	0.128197	0.643228	0.520752	0.632281	0.519557	0.630987
DAPK1	0.525322	2.21633	0.027703	0.060615	0.02696	0.059377
DAPK2	0.326966	1.745887	0.082239	0.149526	0.081613	0.148848
DAPK3	0.009838	0.045517	0.963737	0.975382	0.963598	0.975428
DAPP1	0.127816	0.55149	0.581863	0.685746	0.58014	0.68423
DARS	0.633362	4.367129	1.95E-05	0.000129	2.04E-05	0.000135
DAXX	-0.15609	-1.39177	0.165409	0.261144	0.170029	0.267181
DAZAP1	0.730268	5.730336	3.31E-08	4.55E-07	3.92E-08	5.32E-07
DBC1	-0.00534	-0.04531	0.963904	0.975382	0.964228	0.975646
DBI	-0.0086	-0.05247	0.958203	0.97182	0.958213	0.971651
DBT	0.866429	5.040383	9.75E-07	9.48E-06	9.49E-07	9.18E-06
DCBLD2	1.041824	3.986439	9.15E-05	0.000492	8.34E-05	0.000454
DCDC2	-0.08723	-0.31902	0.750019	0.8217	0.748587	0.820322
DCI	-0.41201	-2.15565	0.032206	0.068524	0.0318	0.067814
DCK	0.131429	0.729218	0.466651	0.581766	0.466016	0.581129
DCLRE1C	0.943297	4.948279	1.50E-06	1.35E-05	1.40E-06	1.28E-05
DCP1A	1.019019	6.552616	4.02E-10	9.44E-09	4.08E-10	9.69E-09
DCP2	0.46264	3.000223	0.003012	0.009442	0.003049	0.009508
DCT	0.13145	1.750533	0.081433	0.148462	0.092348	0.164845
DCTD	0.023258	0.126558	0.899407	0.929467	0.899235	0.929289
DCTN1	-0.41579	-2.5398	0.011788	0.029644	0.011798	0.029665
DCTN2	1.025139	7.534491	1.29E-12	5.96E-11	1.51E-12	6.83E-11
DCTN6	0.297011	1.94161	0.053473	0.105465	0.053845	0.106155
DCX	0.579325	1.563508	0.119384	0.201184	0.116626	0.197742

DDAH1	-0.55787	-2.67928	0.007941	0.021267	0.007725	0.020753
DDB2	-0.51539	-2.2468	0.025654	0.056929	0.024995	0.055755
DDC	-0.38611	-1.08981	0.277002	0.388216	0.273488	0.384087
DDO	0.45815	2.827862	0.005122	0.014752	0.005135	0.014744
DDR2	0.548646	2.945783	0.003571	0.010857	0.003503	0.010684
DDT	-0.19426	-0.92219	0.357448	0.472722	0.355741	0.47098
DDX1	0.007787	0.064558	0.948585	0.966056	0.949007	0.966277
DDX18	0.177543	1.324752	0.18664	0.288272	0.188798	0.290744
DDX20	0.442721	2.870995	0.004495	0.013246	0.004547	0.013345
DDX21	0.311103	1.87518	0.062105	0.11953	0.062088	0.119449
DDX23	0.436267	3.445818	0.000683	0.002713	0.000737	0.002888
DDX24	0.419616	3.414932	0.000761	0.002957	0.00083	0.003167
DDX28	0.308074	3.000059	0.003013	0.009442	0.003453	0.010553
DDX3X	0.086312	0.579909	0.562575	0.669054	0.563455	0.669957
DDX51	-0.09932	-0.75176	0.453004	0.567614	0.455412	0.570167
DDX52	0.284308	1.227072	0.221119	0.327739	0.219013	0.325264
DDX55	0.295648	1.605266	0.109883	0.188761	0.109246	0.187873
DDX56	-0.03307	-0.29143	0.771003	0.83584	0.773328	0.837498
DDX58	0.114721	0.575974	0.565227	0.671397	0.564116	0.670378
DDX6	0.346331	2.013918	0.045247	0.091349	0.045093	0.091078
DEAF1	-0.081	-0.70869	0.479274	0.592212	0.483743	0.596274
DECR1	-0.06786	-0.35634	0.721929	0.800251	0.721331	0.800344
DEDD	-0.58265	-4.17082	4.38E-05	0.000263	4.65E-05	0.000276
DEFB1	-1.41187	-2.32546	0.020966	0.048258	0.019873	0.046124
DEK	0.441157	2.832492	0.005052	0.014575	0.005099	0.014675
DEPDC5	0.235057	1.814962	0.070904	0.133781	0.07256	0.135923
DEPDC6	0.058493	0.266526	0.790086	0.848961	0.789265	0.848283
DERL3	-0.49942	-2.13273	0.034065	0.071763	0.03323	0.070226
DET1	0.263363	1.152014	0.250577	0.359827	0.248478	0.357687
DEXI	-0.0365	-0.20559	0.837303	0.881964	0.837115	0.882161
DFFA	0.300809	1.859998	0.064233	0.123021	0.064345	0.123086
DFNA5	1.573491	4.357364	2.03E-05	0.000133	1.76E-05	0.000119
DGCR14	0.503543	5.340844	2.32E-07	2.60E-06	3.74E-07	3.95E-06
DGCR2	0.885582	6.895433	5.72E-11	1.73E-09	7.05E-11	2.11E-09
DGCR5	-0.02048	-0.17921	0.857938	0.897142	0.859369	0.898456
DGKA	-0.72517	-3.339	0.000989	0.003652	0.000943	0.003499
DGKD	0.374442	2.110062	0.035993	0.075119	0.035762	0.074737
DGKZ	0.647462	3.330402	0.001018	0.003742	0.000987	0.003643
DGUOK	-0.03368	-0.20855	0.834997	0.880324	0.835082	0.880414
DHCR7	0.082911	0.305771	0.760071	0.828463	0.758706	0.827551
DHDH	0.804542	3.712842	0.00026	0.001189	0.000246	0.001135

DHFR	0.18713	0.908268	0.36474	0.480998	0.363163	0.479322
DHODH	0.428355	3.537264	0.000494	0.002056	0.000545	0.00224
DHPS	-0.14829	-0.92567	0.355641	0.471247	0.355962	0.47114
DHRS3	0.016192	0.073638	0.941366	0.960426	0.94113	0.960337
DHRS9	-1.4007	-2.63133	0.009112	0.023953	0.008538	0.022594
DHRSX	0.320393	1.662698	0.09781	0.172887	0.09699	0.171438
DHX29	-0.05845	-0.37436	0.708498	0.789459	0.708834	0.789459
DHX30	0.626858	5.201267	4.55E-07	4.73E-06	5.51E-07	5.61E-06
DHX34	0.173127	1.133106	0.258415	0.367488	0.259197	0.368489
DHX8	0.154158	1.116788	0.265314	0.375483	0.267273	0.377232
DHX9	-0.14268	-0.6739	0.501088	0.613791	0.499544	0.611899
DICER1	-0.11841	-0.75771	0.449444	0.564658	0.449978	0.564725
DIO2	-0.0443	-0.11615	0.907637	0.936119	0.906936	0.935396
DKC1	0.330827	2.092175	0.03758	0.077941	0.037742	0.078421
DKK3	-0.12457	-0.444	0.657482	0.748043	0.655526	0.74704
DLC1	0.959926	3.308231	0.001098	0.003989	0.00102	0.003748
DLD	-0.26561	-1.37013	0.172056	0.269825	0.170978	0.268391
DLG1	0.135729	0.577156	0.564429	0.67092	0.562598	0.669251
DLG3	-0.79151	-4.63895	6.04E-06	4.62E-05	5.92E-06	4.56E-05
DLGAP4	0.508468	3.316614	0.001067	0.003893	0.001084	0.003937
DLL1	-0.2223	-1.36913	0.172369	0.270209	0.172531	0.269759
DLL3	-0.01517	-0.18048	0.856942	0.896622	0.860614	0.899263
DLX4	0.372586	3.531547	0.000504	0.002089	0.000595	0.002417
DLX5	-0.18944	-0.96228	0.336974	0.452275	0.335664	0.450363
DMD	0.412517	3.320112	0.001055	0.003858	0.001141	0.00412
DMPK	-0.29529	-1.49957	0.135171	0.222524	0.134106	0.221043
DMTF1	0.175278	1.125313	0.261694	0.371589	0.262281	0.372198
DMWD	0.753634	6.867247	6.73E-11	1.99E-09	1.03E-10	2.98E-09
DNAI1	0.71213	7.876775	1.57E-13	9.73E-12	4.22E-13	2.30E-11
DNAJA1	0.678697	3.788834	0.000196	0.000936	0.000191	0.000914
DNAJA2	-0.17108	-1.11947	0.264172	0.374204	0.264956	0.375432
DNAJA4	0.51301	2.762301	0.00623	0.017356	0.006127	0.017159
DNAJB1	-0.05897	-0.22757	0.820192	0.871165	0.819215	0.870323
DNAJB2	0.913512	6.155453	3.55E-09	6.23E-08	3.74E-09	6.66E-08
DNAJB5	0.218922	1.256058	0.210439	0.315956	0.210031	0.314979
DNAJB6	0.163318	0.737594	0.461554	0.576636	0.459717	0.574799
DNAJB9	0.42179	1.812617	0.071267	0.134249	0.069965	0.132009
DNAJC10	-0.62842	-3.4889	0.000587	0.002383	0.000575	0.002343
DNAJC12	-0.84593	-1.82168	0.069874	0.13205	0.067604	0.128328
DNAJC8	0.089107	0.712151	0.477133	0.589983	0.480213	0.593167
DNAL4	-0.34011	-2.17264	0.030886	0.066043	0.031061	0.066418

DNALI1	0.992535	2.884161	0.004318	0.012821	0.004045	0.012116
DNASE1	0.176051	1.214721	0.225786	0.332455	0.227111	0.334615
DNASE1L1	0.038788	0.20067	0.841144	0.88482	0.84076	0.884614
DNASE1L3	0.144367	0.545583	0.585911	0.689134	0.583779	0.687317
DNM1	-0.09721	-0.55887	0.576824	0.681859	0.576504	0.680796
DNM1L	0.029646	0.164091	0.869811	0.905251	0.869624	0.905054
DNM3	-0.11197	-0.33554	0.737541	0.812169	0.735753	0.811175
DNMT1	0.064605	0.383136	0.701992	0.784815	0.70191	0.784691
DNMT3A	1.309298	8.39361	5.97E-15	5.97E-13	5.93E-15	5.93E-13
DNMT3B	0.925348	3.890703	0.000133	0.00068	0.000123	0.000634
DOCK1	0.158195	1.191884	0.234602	0.34222	0.237027	0.345155
DOCK10	-0.26708	-2.35211	0.019558	0.045506	0.020835	0.047885
DOCK11	-0.26282	-1.36351	0.174128	0.272346	0.173079	0.270435
DOCK2	-0.61951	-5.89362	1.42E-08	2.10E-07	2.11E-08	3.03E-07
DOCK3	-0.062	-0.30361	0.761712	0.829483	0.760979	0.829069
DOCK5	0.000434	0.002777	0.997786	0.998969	0.997789	0.998956
DOCK8	0.604669	3.663832	0.000312	0.001383	0.000311	0.001378
DOK2	0.82073	5.49564	1.08E-07	1.31E-06	1.13E-07	1.36E-06
DOK3	0.761639	6.291958	1.70E-09	3.29E-08	2.18E-09	4.16E-08
DOM3Z	-0.19255	-1.16757	0.244257	0.353305	0.244301	0.353188
DPAGT1	0.407091	2.221506	0.027345	0.060001	0.027075	0.059546
DPF2	0.18381	1.25078	0.212356	0.317678	0.213508	0.318668
DPM1	0.40388	2.813853	0.005343	0.015225	0.005478	0.015547
DPP4	-0.48223	-1.02292	0.307478	0.42108	0.303502	0.416972
DPP6	-0.11396	-0.59063	0.555383	0.662009	0.554422	0.661367
DPP8	-0.00473	-0.03985	0.96825	0.978661	0.968528	0.978942
DPT	1.291038	3.178507	0.001695	0.005794	0.001558	0.005381
DPYD	0.512318	2.119821	0.035152	0.073494	0.034249	0.072119
DPYSL2	0.384754	1.573861	0.11697	0.198397	0.115123	0.195829
DPYSL3	0.774785	2.742794	0.006598	0.018264	0.00627	0.017478
DPYSL4	-0.08183	-0.49126	0.623735	0.720107	0.623711	0.719726
DRAP1	-0.64741	-4.48939	1.16E-05	8.23E-05	1.22E-05	8.65E-05
DRG1	0.104496	0.814259	0.416385	0.532375	0.419272	0.534638
DRP2	-0.39054	-2.5537	0.011341	0.028735	0.011464	0.029
DSCR3	0.118158	0.980289	0.32803	0.442775	0.332013	0.446995
DSG2	1.773444	4.008187	8.40E-05	0.000458	7.35E-05	0.000406
DSG3	-1.75952	-3.41692	0.000755	0.002944	0.000681	0.002719
DSP	0.291312	0.874701	0.382699	0.500149	0.379343	0.495943
DST	0.536278	2.210168	0.028133	0.061472	0.027351	0.060041
DSTN	0.133836	0.985741	0.325353	0.439919	0.327555	0.442261
DTNB	0.230183	2.865814	0.004567	0.01343	0.005861	0.016481

DTX1	0.859028	4.449997	1.37E-05	9.53E-05	1.30E-05	9.10E-05
DUSP1	0.345528	1.160324	0.247186	0.356045	0.244134	0.353055
DUSP10	-0.00351	-0.01203	0.990409	0.99433	0.990348	0.994345
DUSP12	-0.06574	-0.44555	0.656366	0.747316	0.657156	0.747949
DUSP18	0.654567	4.440567	1.43E-05	9.85E-05	1.48E-05	0.000103
DUSP2	-0.40837	-1.42435	0.155774	0.249281	0.153202	0.245835
DUSP3	0.824775	3.96467	9.97E-05	0.00053	9.41E-05	0.000503
DUSP4	0.660364	1.828191	0.068888	0.130448	0.066849	0.127049
DUSP5	0.074547	0.241692	0.809246	0.8631	0.807997	0.862115
DUSP6	0.828864	2.799192	0.005582	0.015787	0.005281	0.015099
DUT	0.222882	1.2989	0.195351	0.298876	0.195069	0.298348
DVL2	0.131895	1.309083	0.191884	0.294821	0.198856	0.302859
DVL3	0.657172	4.926375	1.66E-06	1.47E-05	1.84E-06	1.62E-05
DYM	-0.55414	-3.95852	0.000102	0.00054	0.000108	0.000565
DYRK1B	0.194427	1.570879	0.117661	0.199273	0.120349	0.202666
DYRK2	0.201352	0.824839	0.410365	0.526683	0.408007	0.523943
DYRK3	0.844483	8.039806	5.67E-14	4.17E-12	1.06E-13	7.13E-12
DYRK4	-0.10616	-0.59971	0.54932	0.65708	0.548868	0.656074
DYSF	0.889322	5.186562	4.89E-07	5.04E-06	4.75E-07	4.94E-06
DYX1C1	0.371401	1.222654	0.22278	0.329889	0.219742	0.326006
E2F4	0.367801	4.60959	6.87E-06	5.17E-05	1.23E-05	8.71E-05
EBI3	-0.24722	-1.1682	0.244001	0.353305	0.2423	0.351051
EBNA1BP2	0.619095	3.415158	0.00076	0.002957	0.000744	0.002909
ECE1	0.887477	7.75265	3.40E-13	1.95E-11	5.21E-13	2.69E-11
ECE2	-0.04072	-0.35507	0.722883	0.800751	0.725548	0.80256
ECEL1	1.65402	8.019902	6.43E-14	4.60E-12	5.11E-14	3.90E-12
ECH1	0.202336	0.628661	0.530229	0.640143	0.527395	0.637048
ECHDC1	0.260389	1.3767	0.170017	0.26734	0.16909	0.26606
ECHDC2	0.282795	2.093546	0.037457	0.077828	0.038337	0.079342
ECM1	0.421445	1.440281	0.151222	0.243239	0.148629	0.239724
ECM2	1.005094	5.794553	2.38E-08	3.38E-07	2.28E-08	3.24E-07
EDA	0.205972	2.483166	0.013776	0.033988	0.01648	0.039317
EDAR	-0.41905	-1.3651	0.173629	0.271838	0.170781	0.268183
EDN1	0.475955	1.240065	0.216284	0.322403	0.212788	0.318099
EDN3	-0.20226	-0.57436	0.566318	0.672485	0.563481	0.669957
EDNRA	0.903469	2.820036	0.005244	0.015039	0.00494	0.014278
EDNRB	1.526726	4.668074	5.31E-06	4.14E-05	4.55E-06	3.59E-05
EEA1	2.157846	10.41164	7.25E-21	2.13E-18	4.89E-21	1.53E-18
EED	0.345315	1.888381	0.060303	0.116587	0.059867	0.115792
EEF1D	-0.01234	-0.07121	0.943295	0.962051	0.943252	0.961956
EEF1E1	-0.1787	-1.21375	0.226156	0.332686	0.227306	0.334743

EEF2	0.298986	2.720776	0.007039	0.019211	0.007714	0.020741
EFEMP1	0.950682	2.53642	0.011899	0.029859	0.01127	0.028585
EFEMP2	0.252349	2.17416	0.03077	0.065915	0.032375	0.068851
EFHA1	0.370031	1.767579	0.07853	0.144685	0.077486	0.143099
EFHD1	0.851097	3.088559	0.002273	0.007449	0.002137	0.007072
EFNA1	0.578889	2.243465	0.025872	0.05725	0.02506	0.055848
EFNB1	-0.32309	-2.24847	0.025547	0.056728	0.025985	0.057582
EFNB2	0.20679	0.713664	0.476199	0.589641	0.473419	0.587399
EFNB3	0.900863	6.315942	1.49E-09	2.95E-08	1.62E-09	3.23E-08
EFS	1.376008	10.09938	6.41E-20	1.59E-17	7.69E-20	1.90E-17
EFTUD1	-0.12507	-0.75362	0.451889	0.56667	0.451885	0.566514
EGFR	0.982841	4.204353	3.82E-05	0.000235	3.51E-05	0.000217
EGLN1	0.875678	5.009511	1.13E-06	1.07E-05	1.09E-06	1.04E-05
EGLN3	-0.50981	-1.34946	0.178588	0.277568	0.17531	0.273469
EGR1	1.353301	4.89065	1.95E-06	1.69E-05	1.69E-06	1.51E-05
EGR3	2.01229	5.588608	6.80E-08	8.68E-07	5.41E-08	7.13E-07
EHD1	0.121324	0.77888	0.436895	0.553069	0.437466	0.553308
EHD2	0.546846	3.4699	0.000627	0.002528	0.000633	0.002553
EHD4	-0.41302	-2.65674	0.008474	0.022437	0.008548	0.02261
EHF	-0.39189	-1.16744	0.244307	0.353305	0.240969	0.349661
EHMT1	0.445163	2.285237	0.023261	0.05256	0.022899	0.051907
EIF1AX	0.29304	1.373953	0.170867	0.268139	0.169284	0.266188
EIF2AK2	0.808226	6.649902	2.33E-10	5.94E-09	3.03E-10	7.54E-09
EIF2AK4	0.745847	3.677485	0.000297	0.001326	0.000283	0.001272
EIF2B2	-0.11579	-0.74574	0.456631	0.57146	0.457222	0.572137
EIF2B5	0.42531	3.040829	0.002648	0.008456	0.002742	0.008707
EIF2C1	0.794721	4.985423	1.26E-06	1.17E-05	1.27E-06	1.19E-05
EIF2C3	1.389791	7.085407	1.89E-11	6.69E-10	1.63E-11	6.02E-10
EIF2S1	0.585042	3.631969	0.000351	0.001529	0.000352	0.001525
EIF2S2	-0.03186	-0.25417	0.799607	0.856172	0.800967	0.856897
EIF2S3	0.021879	0.105794	0.915843	0.942514	0.915564	0.942227
EIF4A2	-0.91884	-3.34755	0.00096	0.003571	0.000894	0.003343
EIF4B	0.575785	3.847162	0.000157	0.000779	0.000161	0.000797
EIF4E	0.526417	2.675053	0.008038	0.021466	0.007864	0.021047
EIF4E2	0.235319	1.996504	0.047123	0.094447	0.049115	0.098021
EIF4EBP1	0.129212	0.558184	0.577291	0.682069	0.575559	0.680192
EIF4G1	0.58676	3.740341	0.000235	0.001089	0.000238	0.001103
EIF4G2	0.558929	4.95984	1.42E-06	1.30E-05	1.79E-06	1.59E-05
EIF4G3	0.695034	5.332094	2.42E-07	2.69E-06	2.77E-07	3.01E-06
EIF5	-0.4785	-2.51143	0.012749	0.031806	0.012541	0.031336
EIF5A	-0.66749	-1.93902	0.053789	0.106	0.052078	0.103147

ELAVL1	0.006151	0.040175	0.96799	0.978609	0.968042	0.978662
ELF1	1.152078	8.122545	3.36E-14	2.73E-12	3.76E-14	3.04E-12
ELF3	1.112016	3.812549	0.000179	0.000867	0.000163	0.000802
ELF4	0.945559	5.036048	9.95E-07	9.64E-06	9.37E-07	9.11E-06
ELK1	-0.10848	-0.69701	0.486538	0.59862	0.48709	0.598672
ELK3	1.192583	8.220283	1.81E-14	1.58E-12	1.96E-14	1.73E-12
ELK4	0.051228	0.327038	0.743953	0.816951	0.744234	0.817458
ELL	0.43072	3.667378	0.000308	0.001369	0.000347	0.00151
ELMOD2	0.623072	4.385626	1.80E-05	0.000121	1.90E-05	0.000127
ELN	-0.16131	-0.71403	0.47597	0.589641	0.474069	0.587763
ELOVL1	0.374145	2.142869	0.033232	0.070355	0.033059	0.069927
ELP3	0.274449	1.756112	0.080474	0.147284	0.080812	0.147502
ELP4	0.317467	2.0907	0.037714	0.07812	0.038041	0.078867
EMCN	1.510946	6.608305	2.94E-10	7.26E-09	2.41E-10	6.19E-09
EML1	0.857292	3.751095	0.000226	0.001052	0.000211	0.000991
EML4	0.077048	0.446228	0.655876	0.747134	0.655647	0.74704
EMP3	0.602727	3.051376	0.002561	0.008243	0.002488	0.008023
ENAH	0.295257	1.266206	0.206791	0.311511	0.204692	0.309044
ENG	0.584486	4.264727	2.98E-05	0.000187	3.20E-05	0.000199
ENO1	-0.55278	-2.78829	0.005767	0.016202	0.005627	0.015884
ENO2	-1.46163	-4.98891	1.24E-06	1.16E-05	1.06E-06	1.01E-05
ENPEP	-0.20767	-0.5476	0.584527	0.688024	0.581672	0.685349
ENPP2	1.095059	3.126836	0.002008	0.006697	0.00186	0.006266
ENSA	-0.25801	-1.29949	0.195147	0.298759	0.193882	0.29692
ENTPD1	0.329205	1.677869	0.094806	0.168719	0.093918	0.167203
ENTPD2	0.188367	1.083236	0.279901	0.391178	0.279492	0.390375
ENTPD3	0.784537	2.845494	0.004857	0.014126	0.004606	0.013481
ENTPD4	0.499253	2.120737	0.035074	0.073396	0.034215	0.072111
ENTPD5	0.739647	3.924253	0.000117	0.000606	0.000112	0.000587
EP300	1.059835	5.911999	1.29E-08	1.93E-07	1.21E-08	1.83E-07
EP400	1.127533	8.566324	1.96E-15	2.19E-13	2.45E-15	2.74E-13
EPAS1	-0.03657	-0.15928	0.873598	0.907384	0.873038	0.906802
EPB41	0.205482	1.666457	0.097059	0.171753	0.099547	0.174774
EPB41L1	0.740197	4.184288	4.15E-05	0.000251	4.04E-05	0.000246
EPB41L2	-0.06203	-0.23868	0.811575	0.864551	0.810548	0.864045
EPB41L3	0.159621	0.474862	0.63536	0.730836	0.632958	0.728428
EPB49	0.849331	4.288329	2.70E-05	0.000172	2.56E-05	0.000163
EPHA1	0.316592	2.093274	0.037481	0.077844	0.037823	0.078555
EPHA4	0.279013	0.870426	0.385025	0.502235	0.381762	0.498411
EPHB2	0.508366	1.842594	0.066746	0.12703	0.065124	0.124272
EPHB3	0.079587	0.269667	0.787672	0.846869	0.786341	0.846368

EPHB4	0.721686	3.965299	9.94E-05	0.00053	9.65E-05	0.000514
EPHB6	0.203623	0.624508	0.532947	0.642434	0.530097	0.639038
EPHX1	-0.51415	-1.84251	0.066758	0.12703	0.065115	0.124272
EPM2A	0.43902	2.552141	0.011391	0.028823	0.011328	0.028701
EPM2AIP1	-0.03824	-0.15851	0.874198	0.907807	0.873583	0.907167
EPN1	-0.03679	-0.36873	0.712688	0.79311	0.717099	0.797146
EPOR	0.438135	3.294246	0.001152	0.004151	0.001217	0.004361
EPRS	0.186348	1.213868	0.226112	0.332686	0.226824	0.334298
EPS15	0.840392	8.095665	3.99E-14	3.12E-12	7.72E-14	5.58E-12
EPS15L1	1.142398	7.184094	1.06E-11	4.11E-10	1.05E-11	4.08E-10
EPS8L2	0.216483	0.947917	0.344221	0.459671	0.342089	0.457416
EPSTI1	-0.72935	-3.07877	0.002345	0.00765	0.002233	0.007343
ERAL1	0.303605	1.680109	0.094368	0.168004	0.093873	0.167186
ERBB2	0.142868	0.321855	0.747871	0.819912	0.745898	0.81852
ERBB3	-0.26996	-1.27587	0.20336	0.307725	0.201729	0.306003
ERCC1	0.496127	2.92584	0.003799	0.011438	0.003779	0.011401
ERCC2	-0.0442	-0.29629	0.767287	0.833218	0.767786	0.833457
ERCC3	-0.24993	-1.89041	0.06003	0.116251	0.061375	0.11827
ERCC5	0.201556	1.270454	0.205277	0.309827	0.205659	0.310082
ERCC8	0.225584	1.100726	0.27223	0.382963	0.270683	0.381129
ERF	-0.12424	-0.87353	0.383337	0.500629	0.384924	0.501702
ERG	0.424671	3.410378	0.000773	0.002986	0.000839	0.00319
ERO1L	0.665847	2.391272	0.01764	0.041662	0.016961	0.040342
ERO1LB	1.487745	5.395238	1.78E-07	2.05E-06	1.49E-07	1.75E-06
ESD	0.336913	1.808927	0.07184	0.134951	0.071281	0.134008
ESM1	0.235725	0.675608	0.500006	0.612784	0.49689	0.608966
ESPL1	0.041264	0.225567	0.82175	0.87203	0.821461	0.871921
ESRRA	0.285666	2.585952	0.010362	0.026671	0.011251	0.028553
ETFA	0.149763	0.779717	0.436403	0.552707	0.435316	0.550752
ETFB	0.266546	1.008962	0.314112	0.428218	0.311367	0.425238
ETNK1	0.019376	0.075024	0.940264	0.959662	0.939936	0.959327
ETS2	0.609758	2.380316	0.018159	0.042652	0.017533	0.041348
ETV4	0.70941	2.495317	0.013326	0.033104	0.012761	0.031818
ETV5	-0.09585	-0.39556	0.692814	0.776771	0.691364	0.775515
ETV6	0.198851	1.085132	0.279062	0.390325	0.278248	0.389346
EVI2B	0.228633	1.282811	0.20092	0.305212	0.200351	0.304544
EVL	-0.34057	-2.16858	0.031197	0.066588	0.031363	0.066972
EVPL	-0.16782	-0.76835	0.443109	0.558491	0.441305	0.556814
EWSR1	0.363207	2.970399	0.003307	0.0102	0.003548	0.010778
EXO1	-0.05863	-0.28403	0.77666	0.839502	0.775942	0.839146
EXOSC10	0.063396	0.525225	0.599961	0.699706	0.602947	0.70284

EXOSC4	-0.43591	-2.41666	0.016487	0.039434	0.016322	0.039005
EXOSC5	-0.28568	-1.64715	0.100967	0.176477	0.100683	0.17626
EXT1	0.782376	3.018387	0.002844	0.008977	0.002692	0.008566
EXTL2	1.048104	5.847785	1.81E-08	2.61E-07	1.70E-08	2.49E-07
EXTL3	0.333676	3.2717	0.001243	0.004435	0.001461	0.00513
EYA2	-0.31878	-0.56471	0.572855	0.678169	0.569555	0.674964
EYA3	0.050957	0.532017	0.595256	0.696004	0.601942	0.702017
EZH1	0.865686	7.078041	1.98E-11	6.93E-10	2.62E-11	8.72E-10
EZH2	-0.04109	-0.16467	0.869355	0.904977	0.868678	0.904472
F10	0.658387	2.997463	0.003038	0.0095	0.00292	0.009197
F11R	1.001261	5.354376	2.17E-07	2.44E-06	2.03E-07	2.32E-06
F13A1	0.670266	1.809666	0.071725	0.134789	0.069612	0.131396
F2R	0.443283	2.320735	0.021225	0.048734	0.020921	0.048058
F2RL1	0.591679	2.163379	0.0316	0.067322	0.030598	0.065637
F2RL3	0.30443	2.802261	0.005532	0.01569	0.006115	0.017139
F3	-0.29429	-0.72533	0.46903	0.583958	0.465552	0.580704
F5	1.364631	2.45404	0.01491	0.036272	0.01407	0.034549
F7	0.931778	7.587614	9.36E-13	4.44E-11	1.26E-12	5.82E-11
F8	1.907409	6.297396	1.65E-09	3.24E-08	1.28E-09	2.57E-08
FAAH	0.255238	1.214845	0.225739	0.332455	0.224103	0.331213
FABP3	0.356907	0.967572	0.334331	0.4496	0.330714	0.44563
FABP4	1.920168	5.43569	1.46E-07	1.71E-06	1.18E-07	1.41E-06
FABP6	-0.18137	-1.22071	0.223513	0.330557	0.224562	0.331318
FADD	0.246041	1.079553	0.281534	0.392528	0.279417	0.390375
FADS3	-0.19555	-1.00211	0.317402	0.431403	0.316147	0.429572
FAF1	0.120696	0.60305	0.547102	0.65563	0.545931	0.654561
FAH	0.717006	3.966454	9.90E-05	0.000528	9.63E-05	0.000514
FAHD2A	0.430842	2.576328	0.010646	0.027253	0.010625	0.027272
FAIM2	0.010451	0.058181	0.953658	0.969332	0.953595	0.969058
FAM19A5	-0.46303	-1.29241	0.197582	0.30131	0.194288	0.297444
FAM36A	0.317828	1.700154	0.090528	0.161903	0.089878	0.160986
FAM3A	-0.19121	-1.35369	0.177237	0.275924	0.178747	0.277814
FAM3C	-0.14373	-0.64685	0.51841	0.630023	0.516678	0.628465
FAM40A	0.292957	2.357446	0.019287	0.044986	0.020151	0.04654
FAM48A	-0.40896	-2.59597	0.010074	0.026058	0.010139	0.026198
FANCA	-0.18325	-1.50605	0.133503	0.220377	0.136571	0.224121
FANCC	0.019117	0.169907	0.865241	0.903094	0.866678	0.903992
FANCD2	0.477688	4.023192	7.92E-05	0.000434	9.05E-05	0.000487
FANCG	0.80893	3.371215	0.000885	0.003336	0.000834	0.003176
FAP	0.027958	0.105902	0.915757	0.942514	0.915281	0.942142
FARP1	0.879051	2.816271	0.005304	0.015145	0.005002	0.014415

FARS2	0.391447	2.517406	0.012541	0.03132	0.012643	0.03154
FAS	0.117124	0.363554	0.716544	0.79671	0.714671	0.795396
FASN	0.069855	0.500022	0.617564	0.714034	0.618901	0.71607
FAU	0.462791	4.190615	4.04E-05	0.000245	4.89E-05	0.000287
FBL	0.13064	0.708626	0.479314	0.592212	0.478534	0.591405
FBLN1	1.169458	3.896198	0.00013	0.000669	0.000117	0.000609
FBLN2	0.157231	0.598893	0.549866	0.657433	0.54762	0.656068
FBLN5	-0.20699	-0.94107	0.347712	0.463109	0.345768	0.461679
FBN1	0.348559	1.718085	0.087201	0.156848	0.086216	0.155672
FBP1	0.505374	1.394679	0.164532	0.259933	0.161413	0.255952
FBP2	0.291127	0.873496	0.383354	0.500629	0.379998	0.496297
FBXL15	0.382287	2.482084	0.013817	0.034035	0.013945	0.03428
FBXO10	0.409051	4.716441	4.28E-06	3.42E-05	6.99E-06	5.27E-05
FBXO11	0.25306	1.387908	0.166582	0.262907	0.165892	0.261993
FBXO16	0.121594	0.420345	0.674647	0.761944	0.672716	0.760222
FBXO2	0.4372	2.291952	0.022863	0.051786	0.022545	0.051312
FBXO21	-0.10495	-0.64781	0.51779	0.629647	0.51798	0.629559
FBXO34	0.198189	1.573214	0.11712	0.198579	0.119591	0.201606
FBXO38	0.102116	0.802058	0.423393	0.539135	0.426378	0.542132
FBXO9	0.028277	0.126882	0.899151	0.929406	0.898733	0.928974
FBXW11	-0.12779	-0.87026	0.385118	0.502235	0.386333	0.503121
FBXW2	0.82988	4.069907	6.58E-05	0.000372	6.21E-05	0.000351
FBXW7	0.464803	3.090101	0.002261	0.007433	0.002303	0.007532
FCER1G	0.419091	2.124663	0.034741	0.072829	0.034237	0.072119
FCER2	-0.01534	-0.09918	0.921087	0.945638	0.921198	0.945939
FCGR1A	0.092082	0.956711	0.339773	0.455097	0.348451	0.464338
FCGR2A	-0.39254	-2.82129	0.005225	0.014992	0.005393	0.015344
FCGR2B	0.660908	1.992327	0.047583	0.095165	0.046034	0.092699
FCGRT	0.487264	2.221866	0.02732	0.059974	0.026701	0.058862
FCHO2	0.476246	2.958101	0.003437	0.010509	0.00345	0.010549
FCN1	0.075283	0.263994	0.792034	0.850287	0.790772	0.849321
FCN3	0.786269	4.192358	4.01E-05	0.000244	3.85E-05	0.000235
FDFT1	-0.11977	-0.37279	0.709665	0.790385	0.707755	0.788655
FDX1	1.04102	5.779855	2.57E-08	3.62E-07	2.41E-08	3.40E-07
FECH	0.495607	2.249838	0.025458	0.056573	0.024861	0.055483
FEN1	-0.17191	-1.0201	0.308812	0.422302	0.308668	0.422586
FER	0.690076	3.688466	0.000285	0.001284	0.000276	0.001249
FEZ1	0.636613	4.287599	2.71E-05	0.000172	2.81E-05	0.000177
FGA	1.652773	6.184339	3.04E-09	5.59E-08	2.44E-09	4.59E-08
FGD1	1.345537	8.204431	2.00E-14	1.68E-12	1.89E-14	1.71E-12
FGD2	0.099151	0.769926	0.442177	0.557765	0.444956	0.55979

FGD6	-0.02711	-0.09941	0.920908	0.945638	0.920442	0.945384
FGF1	0.026646	0.186043	0.852584	0.893057	0.853047	0.893343
FGF11	0.391458	3.432473	0.000716	0.002833	0.000807	0.003107
FGF12	0.000465	0.00442	0.996477	0.998176	0.996525	0.998224
FGF18	0.634081	3.076549	0.002362	0.007694	0.002282	0.007485
FGF9	-0.15788	-0.44671	0.655528	0.747134	0.653167	0.745117
FGFBP1	-0.27529	-0.62746	0.531017	0.6406	0.527707	0.637262
FGFR1	0.135486	0.724754	0.46938	0.584239	0.4685	0.583452
FGFR1OP	0.599039	3.620055	0.000366	0.001584	0.000365	0.001578
FGFR1OP2	0.246993	0.883954	0.377695	0.494475	0.374801	0.491234
FGFR4	0.503669	2.673027	0.008086	0.021568	0.007947	0.021246
FGL1	0.861195	1.869777	0.062855	0.120857	0.060727	0.117311
FGL2	0.576266	1.812128	0.071342	0.134285	0.069423	0.131144
FH	-0.04243	-0.26632	0.790242	0.848961	0.790405	0.84912
FHIT	0.295125	1.147419	0.252466	0.361435	0.249873	0.358787
FHL1	0.472771	1.674452	0.095476	0.16959	0.09345	0.166673
FHL2	-0.6532	-2.58827	0.010295	0.026556	0.009892	0.025654
FHL3	1.035149	6.985519	3.39E-11	1.08E-09	3.59E-11	1.15E-09
FHOD3	0.066396	0.203262	0.83912	0.883482	0.838014	0.882713
FIBP	-0.05114	-0.33507	0.737894	0.812169	0.738322	0.812292
FIGNL1	0.395984	1.807345	0.072087	0.135253	0.070948	0.133649
FIPIL1	-0.14679	-0.97753	0.329389	0.444099	0.330374	0.445427
FKBP11	-0.08631	-0.28473	0.776119	0.839406	0.774686	0.838366
FKBP1A	0.380033	1.763143	0.079277	0.145597	0.078129	0.143946
FKBP2	0.074999	0.50938	0.611001	0.709063	0.611895	0.709749
FKBP4	-0.5899	-3.49658	0.000571	0.002331	0.000567	0.002313
FKBP5	-1.00707	-2.96418	0.003372	0.010339	0.00315	0.009772
FKBP8	-0.16095	-1.32441	0.186754	0.288352	0.190255	0.292413
FKBP9	0.614475	3.460992	0.000647	0.002594	0.000636	0.00256
FLI1	-0.01763	-0.15779	0.874766	0.908196	0.876139	0.90942
FLI2	0.046384	0.282631	0.777728	0.839763	0.777774	0.840094
FLJ36031	0.585837	4.867568	2.17E-06	1.84E-05	2.58E-06	2.16E-05
FLNB	-0.04679	-0.22023	0.825901	0.875052	0.825276	0.874194
FLNC	-0.82341	-3.54032	0.000489	0.002035	0.000459	0.001931
FLOT1	0.154126	1.161063	0.246886	0.355831	0.249333	0.358149
FLRT2	0.668737	3.591441	0.000406	0.001733	0.000395	0.001685
FLRT3	0.234183	0.427742	0.669261	0.758507	0.666601	0.755926
FLT1	1.163721	5.422548	1.55E-07	1.82E-06	1.38E-07	1.63E-06
FLT3LG	0.058264	0.455594	0.649135	0.741959	0.6512	0.743596
FMNL1	-0.26075	-2.5707	0.010815	0.027641	0.012052	0.030242
FMO1	1.941102	4.11944	5.39E-05	0.000314	4.67E-05	0.000277

FMO2	0.15638	0.384218	0.701191	0.784293	0.69896	0.781983
FMO4	0.98856	5.373213	1.98E-07	2.26E-06	1.86E-07	2.14E-06
FMO5	1.031824	3.019439	0.002834	0.008953	0.002641	0.008437
FMOD	0.889464	2.617876	0.009468	0.024695	0.008966	0.023569
FN1	1.025832	3.3972	0.000809	0.003102	0.000747	0.002912
FN3K	0.1064	0.984905	0.325762	0.440346	0.331788	0.446821
FNBP1	0.056589	0.269868	0.787517	0.846869	0.786793	0.846595
FNBP4	-0.10804	-0.5772	0.564397	0.67092	0.563619	0.669957
FNTA	-0.47816	-2.68408	0.007831	0.021009	0.007748	0.020785
FNTB	0.187857	1.607854	0.109314	0.187922	0.112628	0.192212
FOLR1	0.526668	1.503897	0.134055	0.220919	0.131237	0.217494
FOLR2	0.237585	1.805352	0.072399	0.135676	0.073938	0.13812
FOLR3	0.258784	1.003625	0.316672	0.430784	0.314017	0.427543
FOSB	1.163806	2.816358	0.005303	0.015145	0.004952	0.014297
FOSL1	1.03241	3.58032	0.000423	0.001798	0.000389	0.001665
FOXA1	-0.28938	-0.83296	0.405776	0.522101	0.402375	0.518203
FOXA2	0.643436	1.649465	0.100493	0.175943	0.097895	0.172712
FOXA3	0.234086	0.71957	0.472561	0.587265	0.469486	0.584061
FOXDI	0.14274	0.285271	0.775708	0.839406	0.773878	0.837684
FOXFI	0.156669	0.718495	0.473222	0.587775	0.471479	0.585921
FOXFI2	0.997478	2.688075	0.007741	0.020815	0.007291	0.019807
FOXJ1	-0.29949	-1.09152	0.276248	0.387571	0.273395	0.384087
FOXJ2	0.328204	3.901848	0.000127	0.000655	0.000186	0.000897
FOXMI	-0.22963	-1.0452	0.297089	0.410078	0.295146	0.407636
FPGS	0.272448	1.64158	0.102119	0.17796	0.102101	0.178118
FPGT	1.258046	6.633423	2.55E-10	6.48E-09	2.27E-10	5.87E-09
FPR1	-0.03877	-0.22893	0.81914	0.870363	0.819075	0.870323
FRG1	0.513126	3.116813	0.002074	0.00689	0.002073	0.006886
FRS2	1.219985	6.333803	1.35E-09	2.72E-08	1.21E-09	2.47E-08
FRS3	-0.36392	-2.30497	0.022109	0.050492	0.022224	0.050704
FRZB	-0.65084	-1.64373	0.101673	0.177447	0.099043	0.17407
FSCN2	0.176583	1.381603	0.168508	0.265411	0.17119	0.268466
FST	1.626247	3.177151	0.001703	0.005808	0.001555	0.005379
FSTL1	0.244387	1.424545	0.155719	0.249277	0.155457	0.248627
FTCD	0.190184	1.620328	0.106607	0.184008	0.109821	0.188642
FTSJ1	0.258337	1.759672	0.079866	0.1464	0.080622	0.147212
FUBP1	0.134582	0.695053	0.487762	0.599655	0.486682	0.598484
FUBP3	0.227045	1.751349	0.081292	0.148263	0.083071	0.151039
FURIN	0.103122	0.816077	0.415347	0.531481	0.41846	0.534011
FUT10	0.031996	0.2033	0.83909	0.883482	0.839256	0.883427
FUT6	-0.49553	-1.80229	0.072881	0.13647	0.071181	0.133968

FUT8	0.43575	1.650338	0.100314	0.175858	0.098392	0.173135
FXC1	0.304462	1.915294	0.056764	0.110931	0.056951	0.111205
FXN	0.82877	5.601667	6.36E-08	8.24E-07	6.69E-08	8.45E-07
FXR1	0.875398	4.87571	2.09E-06	1.79E-05	2.00E-06	1.74E-05
FXR2	0.120854	1.135595	0.257373	0.36634	0.263614	0.373977
FXYD2	0.516847	1.520798	0.12976	0.21573	0.12703	0.211717
FXYD3	-0.62868	-1.98574	0.048315	0.096507	0.046802	0.093923
FYB	-0.01218	-0.0636	0.949345	0.966412	0.949228	0.966292
FYN	-0.42494	-2.07633	0.039036	0.08054	0.038403	0.079407
FZD3	0.483594	1.662	0.09795	0.17294	0.095835	0.169715
FZD4	0.730493	6.199221	2.80E-09	5.24E-08	3.70E-09	6.61E-08
FZD7	1.139529	3.528037	0.00051	0.002108	0.000466	0.001954
FZD9	-0.02311	-0.16743	0.867184	0.904338	0.867727	0.904472
FZR1	0.275642	2.585559	0.010373	0.026686	0.011385	0.028829
G3BP2	-0.05579	-0.32399	0.74626	0.818725	0.746097	0.818548
GAA	0.771549	3.691991	0.000281	0.001272	0.000267	0.001216
GAB1	0.617994	3.892965	0.000132	0.000675	0.000133	0.000677
GAB2	0.703005	3.320453	0.001053	0.003856	0.001009	0.003709
GABARAP	0.461074	4.443306	1.41E-05	9.77E-05	1.83E-05	0.000123
GABARAPL2	0.265742	1.943974	0.053185	0.105081	0.05421	0.106829
GABBR1	0.0907	0.459488	0.646341	0.74056	0.645439	0.739328
GABPB2	-0.4579	-2.39875	0.017293	0.041029	0.01703	0.040466
GABRB1	-0.44945	-1.60122	0.110776	0.189947	0.108607	0.18698
GABRB3	0.476	0.899834	0.369201	0.485384	0.365147	0.481284
GABRD	0.376059	3.122435	0.002037	0.00678	0.00221	0.007286
GABRE	0.615714	1.250695	0.212386	0.317678	0.208592	0.313521
GAD1	0.394737	1.099496	0.272764	0.383371	0.26923	0.379425
GADD45B	0.272136	1.111399	0.267621	0.37795	0.265198	0.375432
GADD45G	-0.5829	-2.33278	0.020571	0.047487	0.019911	0.046168
GAK	0.207178	1.249865	0.212689	0.31785	0.212686	0.318048
GALE	0.258183	1.461443	0.145334	0.235136	0.144879	0.234731
GALK1	0.21839	1.799021	0.073398	0.137221	0.075691	0.140613
GALK2	0.424697	2.399985	0.017236	0.040935	0.0171	0.040591
GALNS	0.256453	2.235915	0.026371	0.058216	0.027885	0.0609
GALNT11	0.681715	3.072864	0.00239	0.007775	0.002291	0.007502
GALNT3	0.782963	4.868075	2.16E-06	1.84E-05	2.17E-06	1.86E-05
GALNT6	0.341826	1.002989	0.316978	0.430951	0.313516	0.427226
GALNT7	0.703695	2.860716	0.004638	0.013581	0.004429	0.01306
GALNTL2	0.784766	2.639981	0.00889	0.023435	0.008456	0.022404
GAMT	0.42952	2.91013	0.003987	0.011945	0.00407	0.012181
GAP43	-0.73671	-2.595	0.010101	0.026114	0.009643	0.025082

GARS	0.0603	0.362577	0.717272	0.797157	0.717262	0.797146
GART	0.893628	4.932971	1.61E-06	1.43E-05	1.53E-06	1.38E-05
GAS1	0.357622	1.348236	0.178982	0.278087	0.176507	0.275049
GAS2L1	-0.14808	-0.84493	0.399074	0.515288	0.398616	0.515263
GAS6	0.041458	0.152066	0.879276	0.912273	0.878568	0.911538
GAS8	-0.18782	-1.65888	0.098579	0.173789	0.102134	0.178118
GATA2	0.418614	2.771709	0.006058	0.016899	0.006147	0.017197
GATA4	0.387432	1.652742	0.099823	0.175259	0.098239	0.173124
GATA6	0.310834	1.311483	0.191074	0.293864	0.188956	0.290892
GATM	0.183109	1.258513	0.209552	0.314897	0.210809	0.315915
GBA2	0.044426	0.213485	0.831148	0.878791	0.830582	0.878796
GBAS	0.280953	1.276502	0.203136	0.307584	0.20131	0.305507
GBE1	0.748051	3.424514	0.000736	0.002896	0.0007	0.002773
GBF1	0.177992	1.203184	0.23021	0.336963	0.231314	0.338262
GBGT1	0.669203	2.922689	0.003836	0.011535	0.003679	0.011119
GBP2	-0.58708	-3.04387	0.002623	0.008386	0.002557	0.008192
GC	0.06039	0.094095	0.92512	0.947752	0.924463	0.947342
GCA	0.572505	2.624507	0.009291	0.024301	0.009012	0.023662
GCAT	-0.2584	-1.16766	0.244218	0.353305	0.242285	0.351051
GCC1	-0.20406	-1.61615	0.107507	0.185222	0.109854	0.188642
GCC2	0.596333	3.134296	0.00196	0.006574	0.001911	0.006421
GCDH	0.194695	1.364445	0.173834	0.272069	0.175224	0.273469
GCGR	0.264366	2.134721	0.0339	0.07148	0.035199	0.073657
GCHFR	-0.07985	-0.29946	0.764871	0.831766	0.76356	0.830725
GCLC	1.857562	8.008662	6.90E-14	4.77E-12	5.14E-14	3.90E-12
GCNT1	1.138064	2.932542	0.003721	0.011239	0.003463	0.01057
GCNT2	0.526292	1.791534	0.074595	0.13907	0.072751	0.136176
GDA	-0.56232	-1.39799	0.163536	0.25862	0.160268	0.25448
GDF10	0.227481	0.875171	0.382444	0.499996	0.379803	0.496267
GDF15	-0.25219	-1.41272	0.159164	0.253498	0.158624	0.252723
GDI2	-0.25413	-1.64986	0.100412	0.175898	0.100899	0.176489
GEM	-0.1231	-0.46935	0.639285	0.734451	0.637401	0.732287
GEMIN4	0.313624	2.124775	0.034731	0.072829	0.035157	0.073602
GEMIN7	0.03816	0.249316	0.803351	0.858515	0.803666	0.859047
GFPT1	0.079739	0.389176	0.697526	0.780608	0.696602	0.779716
GFPT2	0.195506	0.764632	0.445317	0.560523	0.442849	0.55827
GFRA1	0.313826	1.375806	0.170294	0.267547	0.16841	0.265168
GFRA2	-0.02256	-0.19481	0.845727	0.887853	0.847199	0.8892
GFRA3	0.167206	0.699262	0.485134	0.597362	0.483014	0.595532
GGA1	-0.18708	-1.37596	0.170245	0.267547	0.172165	0.269545
GGA2	0.076576	0.604705	0.546004	0.654481	0.548658	0.656074

GGCX	0.385385	2.041838	0.042372	0.086398	0.041923	0.085484
GGH	0.065734	0.167166	0.867394	0.904338	0.866378	0.90388
GGPS1	0.23133	1.424042	0.155864	0.24934	0.156015	0.249412
GHITM	0.353378	2.283748	0.02335	0.052685	0.023527	0.053189
GHR	1.334039	4.411133	1.62E-05	0.00011	1.42E-05	9.89E-05
GHRL	-0.81841	-2.63381	0.009048	0.023811	0.008592	0.0227
GIT1	0.735004	5.88609	1.48E-08	2.17E-07	1.80E-08	2.62E-07
GIT2	-0.44633	-2.34469	0.019942	0.046254	0.019656	0.045757
GJA4	1.088816	6.787168	1.07E-10	2.98E-09	1.05E-10	3.02E-09
GJB1	-0.08829	-0.29832	0.765743	0.832459	0.764279	0.831122
GJB2	-0.5455	-1.20799	0.22836	0.3353	0.224591	0.331318
GJC1	1.068067	5.581838	7.03E-08	8.96E-07	6.47E-08	8.24E-07
GK2	-0.15622	-1.21676	0.22501	0.33211	0.22787	0.335103
GKN1	-6.11078	-11.0818	6.30E-23	3.70E-20	2.66E-23	1.79E-20
GLA	0.940796	4.034525	7.57E-05	0.000419	6.99E-05	0.000388
GLB1	0.195449	1.03599	0.301355	0.414489	0.300328	0.412973
GLCCI1	-0.35958	-1.47278	0.142253	0.231184	0.140245	0.228792
GLG1	0.705839	5.36631	2.05E-07	2.31E-06	2.33E-07	2.62E-06
GLI1	-0.45033	-2.9454	0.003575	0.010862	0.003624	0.010996
GLI3	0.692331	3.829484	0.000168	0.000821	0.000164	0.000807
GLIPR1	0.60721	2.737054	0.006711	0.018502	0.006483	0.017935
GLIS2	-0.10524	-0.41298	0.680029	0.766643	0.678397	0.764803
GLIS3	1.564588	4.22219	3.55E-05	0.00022	3.10E-05	0.000194
GLO1	0.151652	0.794979	0.427491	0.543322	0.426439	0.542132
GLRX	-0.37284	-1.55118	0.12231	0.205306	0.12048	0.202813
GLRX2	0.417117	2.485353	0.013694	0.033821	0.013663	0.03371
GLS	0.702091	2.840556	0.00493	0.014321	0.00471	0.013731
GLS2	-0.51958	-3.42427	0.000736	0.002896	0.00075	0.002923
GLT25D1	0.502269	3.518997	0.000527	0.002168	0.000547	0.002247
GLT25D2	-0.01693	-0.07864	0.937393	0.957377	0.937156	0.957321
GLTP	0.713179	4.412941	1.60E-05	0.000109	1.61E-05	0.00011
GLUD1	0.92861	4.633081	6.20E-06	4.72E-05	5.78E-06	4.46E-05
GLUL	0.327694	1.375539	0.170376	0.267547	0.168316	0.26511
GM2A	0.275417	1.505791	0.133568	0.220377	0.132915	0.219656
GMEB1	0.389707	3.518685	0.000528	0.002168	0.000607	0.002454
GMEB2	0.688869	6.309228	1.54E-09	3.05E-08	2.27E-09	4.30E-08
GMFB	0.918474	5.141691	6.05E-07	6.10E-06	5.79E-07	5.86E-06
GMFG	-0.609	-5.00091	1.17E-06	1.11E-05	1.39E-06	1.28E-05
GMIP	0.103157	0.934017	0.351328	0.466585	0.356881	0.472091
GMPPB	0.250157	1.699919	0.090573	0.161921	0.091365	0.163337
GMPR	0.613636	2.066397	0.039973	0.082112	0.038701	0.079883

GNA11	0.808139	4.79805	2.97E-06	2.44E-05	2.92E-06	2.40E-05
GNA12	0.106343	0.845516	0.39875	0.515011	0.401968	0.518131
GNAI1	0.450733	1.360982	0.174925	0.273138	0.171903	0.269315
GNAI3	0.349867	2.532593	0.012026	0.030097	0.012365	0.030962
GNAL	0.792928	3.217733	0.001489	0.005191	0.001406	0.004953
GNAO1	0.074412	0.514692	0.60729	0.706326	0.608347	0.706858
GNAS	-0.17975	-0.4175	0.676725	0.76315	0.674282	0.76126
GNAT1	-0.4452	-5.07756	8.19E-07	8.14E-06	1.40E-06	1.28E-05
GNB1	0.049275	0.307261	0.758938	0.827833	0.759093	0.827781
GNB2	0.448826	2.670882	0.008136	0.021677	0.008112	0.021614
GNB2L1	-0.1354	-0.72432	0.469648	0.584417	0.468768	0.583477
GNB3	0.159298	1.382316	0.168289	0.265244	0.172486	0.269759
GNB5	0.184541	0.956263	0.339999	0.455269	0.33882	0.453949
GNG10	1.227154	8.875396	2.59E-16	3.68E-14	3.01E-16	4.28E-14
GNG11	0.787925	4.202135	3.86E-05	0.000236	3.70E-05	0.000227
GNG3	0.962381	8.337822	8.54E-15	8.19E-13	1.34E-14	1.29E-12
GNG7	-0.16821	-0.92696	0.354974	0.470496	0.354235	0.469781
GNL1	0.232397	1.963405	0.050871	0.100925	0.052924	0.104513
GNL2	0.320655	1.792791	0.074393	0.138859	0.074002	0.138184
GNLY	-0.91692	-2.3171	0.021426	0.049052	0.020434	0.047056
GNPAT	0.56912	3.547636	0.000476	0.00199	0.000478	0.001996
GNRH1	-0.57805	-5.76493	2.77E-08	3.87E-07	4.33E-08	5.79E-07
GNS	0.726466	3.000821	0.003006	0.009432	0.002863	0.009048
GOLGA1	0.015813	0.108976	0.913322	0.940537	0.913569	0.940792
GOLGA2	0.109124	0.848384	0.397155	0.513374	0.400045	0.516563
GOLGA3	0.357859	2.349111	0.019712	0.04582	0.01991	0.046168
GOLGA4	-0.05072	-0.31152	0.755705	0.825938	0.755791	0.825714
GOLGA7	0.152612	0.931442	0.352656	0.467875	0.352765	0.46836
GOLGB1	0.075142	0.54371	0.587197	0.689826	0.588724	0.691578
GOLPH3	0.699419	4.137696	5.01E-05	0.000295	4.95E-05	0.00029
GOPC	0.66389	3.632141	0.00035	0.001529	0.000342	0.001494
GOSR1	0.606038	3.3328	0.00101	0.00372	0.00099	0.003648
GOSR2	0.533395	4.132502	5.12E-05	0.0003	5.62E-05	0.000323
GOT2	0.424781	3.023043	0.002802	0.008863	0.002897	0.009131
GP2	-0.01978	-0.03304	0.97367	0.982239	0.973441	0.982134
GPA33	-0.39396	-1.00508	0.315973	0.430206	0.312247	0.425752
GPAA1	0.289347	1.719028	0.087029	0.156659	0.086929	0.156719
GPC1	0.195027	1.080824	0.280969	0.392206	0.28027	0.39123
GPC4	-0.1724	-0.54302	0.587673	0.689826	0.585124	0.688424
GPC6	0.957756	3.470471	0.000626	0.002526	0.00058	0.00236
GPD1	0.241074	1.563988	0.119271	0.201066	0.119797	0.201809

GPHN	0.166881	0.762168	0.446784	0.561917	0.444974	0.55979
GPI	-0.17721	-0.9718	0.332227	0.447155	0.331447	0.446489
GPKOW	0.18328	1.22139	0.223258	0.330439	0.224202	0.331213
GPM6B	0.206879	0.663245	0.507875	0.620486	0.505019	0.617642
GPNMB	2.027294	6.584846	3.35E-10	8.04E-09	2.54E-10	6.48E-09
GPR108	0.216325	1.654474	0.09947	0.17477	0.101363	0.177103
GPR109B	0.614953	1.362271	0.174518	0.272605	0.171032	0.268391
GPR133	0.376698	1.042473	0.298347	0.411232	0.294773	0.407621
GPR135	0.150216	1.25228	0.21181	0.317242	0.215647	0.321351
GPR155	0.718648	2.044964	0.04206	0.085799	0.040577	0.083244
GPR160	1.526744	3.654386	0.000323	0.001426	0.000289	0.001297
GPR3	-0.68238	-6.16322	3.41E-09	6.04E-08	4.84E-09	8.13E-08
GPR35	0.599425	2.323499	0.021074	0.048433	0.020371	0.046955
GPR4	0.40763	3.023365	0.002799	0.008863	0.002925	0.009201
GPR55	-0.31319	-3.28921	0.001171	0.004206	0.001433	0.005037
GPR56	-0.35507	-1.74234	0.082859	0.150304	0.081883	0.149225
GPR65	0.509512	2.624505	0.009291	0.024301	0.009109	0.023876
GPR75	-0.6194	-5.2198	4.17E-07	4.36E-06	5.12E-07	5.29E-06
GPRC5B	1.099121	4.94747	1.50E-06	1.35E-05	1.35E-06	1.25E-05
GPRC5C	0.703066	3.570775	0.000438	0.001851	0.000421	0.001783
GPS1	-0.33286	-2.49332	0.013399	0.033233	0.013855	0.034094
GPSM2	0.098015	0.396171	0.692366	0.776454	0.690861	0.775212
GPSM3	-0.02451	-0.23569	0.813892	0.866235	0.816468	0.86819
GPT	0.310923	2.200033	0.028855	0.062699	0.0294	0.063706
GPT2	-0.81203	-2.40292	0.017102	0.040637	0.016324	0.039005
GPX1	0.319161	1.670739	0.096208	0.170376	0.095435	0.169135
GPX2	0.668572	1.900604	0.058673	0.113999	0.056846	0.111139
GPX3	0.898664	2.325152	0.020983	0.048273	0.020016	0.046297
GPX4	-0.11827	-0.6141	0.539792	0.648855	0.538817	0.647683
GRAP2	-0.03942	-0.27099	0.786655	0.846641	0.787237	0.846879
GRASP	0.309613	2.880236	0.00437	0.012943	0.004874	0.014115
GRB10	-0.09625	-0.41997	0.674918	0.761944	0.673554	0.760732
GRB14	0.183073	0.390552	0.69651	0.779799	0.694135	0.777981
GRB2	0.724835	6.095092	4.91E-09	8.10E-08	6.36E-09	1.03E-07
GRB7	0.416824	1.167824	0.244153	0.353305	0.240691	0.349449
GREM1	-0.76169	-1.70678	0.089286	0.159987	0.086717	0.156456
GRHPR	0.04862	0.291056	0.771285	0.83584	0.771259	0.83639
GRIA3	-0.16163	-1.35342	0.177325	0.275969	0.181031	0.280899
GRIK3	-0.0527	-0.54321	0.587539	0.689826	0.594074	0.695603
GRIN1	0.3887	4.300895	2.57E-05	0.000164	3.73E-05	0.000228
GRIN2C	0.209122	1.981541	0.048787	0.097367	0.051853	0.102787

GRIN2D	0.091746	0.457	0.648126	0.741166	0.647155	0.740416
GRK5	0.312681	2.207243	0.02834	0.061835	0.028868	0.062732
GRK6	-0.35514	-3.24958	0.001339	0.004742	0.00152	0.005296
GRM3	-0.35405	-2.57749	0.010611	0.027208	0.010931	0.027862
GRN	0.812833	4.509618	1.06E-05	7.62E-05	1.02E-05	7.41E-05
GRP	-1.10725	-2.56732	0.010918	0.027798	0.010294	0.026511
GRSF1	-0.26972	-1.65068	0.100244	0.175801	0.100325	0.175812
GSK3B	-0.19133	-0.96222	0.337008	0.452275	0.335634	0.450363
GSN	-0.03753	-0.28383	0.776808	0.839502	0.777962	0.840094
GSPT1	-0.04609	-0.20002	0.841653	0.885157	0.840948	0.884615
GSR	0.964139	4.585855	7.62E-06	5.64E-05	7.04E-06	5.30E-05
GSS	0.356916	2.216725	0.027675	0.060615	0.027749	0.060717
GSTA4	0.184033	0.753421	0.45201	0.56667	0.449729	0.564681
GSTK1	-0.46383	-4.22282	3.54E-05	0.00022	4.31E-05	0.000259
GSTM2	1.0231	2.94014	0.003634	0.011027	0.003395	0.010428
GSTM3	1.309662	3.851703	0.000154	0.000768	0.000138	0.000699
GSTM4	0.43187	1.507734	0.13307	0.21999	0.130662	0.216617
GSTM5	0.472211	2.394855	0.017473	0.041392	0.017159	0.040614
GSTO1	-0.08829	-0.66952	0.503873	0.616398	0.506171	0.618404
GSTP1	0.107238	0.399357	0.690021	0.774749	0.688317	0.773021
GSTT1	-1.2984	-1.74453	0.082477	0.149784	0.079764	0.146098
GSTZ1	-0.00818	-0.03679	0.970687	0.980281	0.970566	0.980159
GTF2A1	0.577979	5.453513	1.33E-07	1.57E-06	1.87E-07	2.15E-06
GTF2A2	-0.82934	-3.10524	0.002154	0.007108	0.002028	0.00675
GTF2B	-0.12279	-0.76163	0.447103	0.562168	0.447351	0.562179
GTF2E1	0.364144	2.350496	0.019641	0.045677	0.019794	0.045964
GTF2E2	0.5039	2.698844	0.007503	0.020233	0.00738	0.020004
GTF2F2	0.610809	3.082877	0.002315	0.007566	0.002247	0.007386
GTF2H1	-0.32714	-2.12997	0.034295	0.072151	0.034556	0.072636
GTF2H2	0.487085	1.899878	0.058769	0.114138	0.057397	0.111853
GTF2H4	0.144106	0.736409	0.462273	0.577271	0.461098	0.576219
GTF2H5	0.107797	0.79704	0.426295	0.541949	0.428453	0.544398
GTF2IRD1	-0.27788	-1.30635	0.192811	0.295954	0.191178	0.293544
GTF3C1	0.354374	2.983247	0.003177	0.009849	0.003441	0.01053
GTF3C2	0.289304	2.210818	0.028088	0.061401	0.028957	0.062892
GTF3C3	1.03293	6.953798	4.08E-11	1.29E-09	4.31E-11	1.35E-09
GTF3C4	0.408807	2.451659	0.015006	0.036469	0.014986	0.036437
GTPBP1	0.029483	0.228783	0.819252	0.870363	0.820331	0.871115
GTPBP4	-0.3443	-1.72858	0.085301	0.153843	0.084399	0.153157
GTPBP5	0.13282	1.295604	0.196482	0.299826	0.203127	0.307075
GTSE1	0.69614	3.630629	0.000352	0.001532	0.00034	0.00149

GUCA1B	0.118046	1.202726	0.230387	0.337117	0.238308	0.346764
GUCY1A3	0.340678	1.378523	0.169455	0.266724	0.167263	0.263804
GUCY1B3	0.159169	0.863314	0.388913	0.505362	0.38807	0.504513
GUCY2C	1.358803	2.85748	0.004684	0.013673	0.004352	0.012872
GUK1	-0.13249	-1.12262	0.262834	0.372757	0.267119	0.377167
GUSB	0.246188	1.994801	0.04731	0.094701	0.048948	0.097772
GYG2	0.991001	3.372348	0.000882	0.003331	0.000816	0.003133
GZMA	-0.92921	-3.37666	0.000869	0.003295	0.000808	0.00311
GZMB	-0.32759	-0.98451	0.325958	0.440483	0.32255	0.436757
GZMH	-0.4709	-1.41075	0.159745	0.253993	0.156806	0.250421
GZMK	-1.17328	-3.83927	0.000162	0.000796	0.000146	0.000733
GZMM	-0.72494	-4.0944	5.96E-05	0.000341	5.82E-05	0.000333
H1F0	0.564309	1.774566	0.077365	0.143156	0.075356	0.140095
H2AFV	0.321871	2.091856	0.037609	0.077941	0.03788	0.078604
H2AFX	0.326627	2.955806	0.003461	0.010564	0.00384	0.011546
H2AFZ	-0.0129	-0.09917	0.921092	0.945638	0.921548	0.945939
H3F3B	-0.05	-0.31757	0.751114	0.821941	0.751363	0.822213
H6PD	0.218442	1.659544	0.098444	0.173616	0.100261	0.175765
HA AO	0.215867	1.28207	0.20118	0.305508	0.201047	0.305306
HABP4	0.500525	3.412954	0.000766	0.00297	0.000788	0.00305
HADHA	-0.21258	-1.40146	0.162499	0.257239	0.16325	0.258167
HAGH	0.031006	0.200879	0.840981	0.88482	0.841209	0.88469
HARS2	-0.44301	-2.5618	0.011088	0.028199	0.011019	0.028039
HAS3	-0.4533	-1.42382	0.155928	0.249358	0.153111	0.245772
HAT1	0.176498	1.291885	0.197765	0.301491	0.199723	0.303785
HBB	1.015715	1.445639	0.149714	0.241309	0.146121	0.236491
HBEGF	0.237099	1.444909	0.149919	0.241557	0.149989	0.24167
HBS1L	0.238369	1.277681	0.202721	0.307328	0.201832	0.306003
HBXIP	0.38805	3.125075	0.002019	0.006731	0.002169	0.007168
HBZ	-0.25868	-2.16936	0.031137	0.066489	0.032585	0.069112
HCCS	0.220694	1.3555	0.176661	0.275209	0.176802	0.275247
HCFC1	0.741493	6.10303	4.70E-09	7.87E-08	5.95E-09	9.71E-08
HCFC1R1	0.172693	1.098745	0.273091	0.383716	0.273592	0.384087
HCG9	0.417253	4.604442	7.03E-06	5.27E-05	1.07E-05	7.69E-05
HCK	-0.64219	-3.63579	0.000346	0.00151	0.00034	0.001489
HCLS1	-0.4206	-2.56843	0.010884	0.027787	0.010893	0.02778
HCN2	0.023742	0.279851	0.779857	0.84125	0.785291	0.845892
HCP5	0.308419	0.891899	0.373431	0.490121	0.369979	0.485999
HCST	-0.3637	-2.32752	0.020854	0.048071	0.020991	0.048196
HDAC1	0.149758	0.952387	0.341956	0.457498	0.342458	0.45778
HDAC2	0.468893	3.674916	0.0003	0.001336	0.000325	0.001434

HDAC3	-0.14226	-1.17993	0.239313	0.347473	0.243175	0.351886
HDAC4	0.576717	2.659589	0.008405	0.022292	0.00815	0.021701
HDAC6	0.826236	7.304923	5.16E-12	2.11E-10	7.81E-12	3.11E-10
HDGF	0.480939	3.64825	0.00033	0.001453	0.000354	0.001531
HDGFRP3	1.202623	4.92472	1.67E-06	1.48E-05	1.47E-06	1.33E-05
HDLBP	0.353422	1.601276	0.110764	0.189947	0.10931	0.187914
HECA	-0.21505	-1.7231	0.086288	0.155444	0.088501	0.15896
HECTD1	0.459815	2.225967	0.02704	0.059415	0.026527	0.058533
HELZ	0.233112	1.478614	0.140687	0.229195	0.141068	0.229656
HERC1	0.20346	1.261842	0.208354	0.313465	0.208591	0.313521
HERC2	-0.23035	-2.13733	0.033684	0.071105	0.035933	0.075026
HERC3	-2.24E-05	-0.00022	0.999824	0.999824	0.999827	0.999827
HERPUD1	-0.22019	-1.25055	0.212439	0.317678	0.211952	0.317253
HES1	0.332858	1.253232	0.211464	0.316825	0.208858	0.31382
HES2	-0.32638	-2.52119	0.012411	0.031011	0.012922	0.032201
HEXA	0.04805	0.318401	0.750486	0.821828	0.750955	0.822001
HEXB	0.174978	1.07521	0.283469	0.394567	0.283638	0.39511
HEY1	0.538394	2.366428	0.018837	0.044068	0.018315	0.042976
HEY2	0.834163	3.290091	0.001168	0.004197	0.001097	0.003982
HFE	0.956054	7.806371	2.44E-13	1.43E-11	3.34E-13	1.96E-11
HGD	0.546418	1.557091	0.1209	0.203302	0.118205	0.199628
HHEX	1.456746	4.284395	2.75E-05	0.000174	2.40E-05	0.000155
HIBCH	0.370758	1.534701	0.126307	0.210886	0.124433	0.208034
HIF1A	0.960401	6.996356	3.19E-11	1.03E-09	3.65E-11	1.16E-09
HINT1	-0.26239	-1.86622	0.063353	0.121385	0.064295	0.123041
HIP1	0.493735	2.688706	0.007727	0.020789	0.007616	0.020549
HIPK3	1.017202	4.922371	1.69E-06	1.49E-05	1.55E-06	1.39E-05
HIRIP3	0.246761	2.01968	0.044641	0.09028	0.046292	0.093131
HIST1H1A	0.350662	2.411058	0.016735	0.039906	0.017026	0.040466
HIST1H1C	1.796914	4.220569	3.58E-05	0.000221	3.09E-05	0.000194
HIST1H2AC	1.799205	4.970371	1.35E-06	1.24E-05	1.12E-06	1.06E-05
HIST1H2AE	1.249698	3.330449	0.001018	0.003742	0.000931	0.003466
HIST1H2AM	0.890509	3.573406	0.000434	0.001835	0.000404	0.001717
HIST1H2BD	1.175067	4.11301	5.53E-05	0.000321	4.96E-05	0.00029
HIST1H2BK	1.602764	4.493646	1.14E-05	8.10E-05	9.77E-06	7.14E-05
HIST1H2BL	0.384193	3.411134	0.000771	0.002982	0.000873	0.00329
HIST1H4B	0.417448	2.950391	0.00352	0.01073	0.003629	0.010996
HIST1H4C	2.129599	7.697568	4.77E-13	2.58E-11	3.39E-13	1.97E-11
HIST1H4J	-0.6192	-2.45956	0.014689	0.035864	0.014166	0.034659
HIST2H2BE	1.682227	4.434963	1.46E-05	0.0001	1.25E-05	8.87E-05
HIST3H2A	1.075609	4.988193	1.24E-06	1.16E-05	1.12E-06	1.06E-05

HIVEP1	0.298928	2.357201	0.019299	0.044993	0.020083	0.046407
HIVEP2	-0.20747	-1.04285	0.298175	0.411232	0.296797	0.409316
HK2	0.304829	1.298399	0.195522	0.298944	0.193428	0.296514
HKR1	-0.24526	-2.00935	0.045733	0.092212	0.047418	0.094998
HLA-C	0.482719	4.178737	4.24E-05	0.000255	4.98E-05	0.000291
HLA-DMA	0.718971	2.744237	0.006571	0.018198	0.00627	0.017478
HLA-DOA	-0.28455	-1.82797	0.06892	0.130457	0.069252	0.13098
HLA-DOB	0.098657	0.569486	0.569613	0.675033	0.569316	0.674961
HLA-DPA1	-0.30974	-1.05781	0.291314	0.404126	0.288246	0.40046
HLA-DPB1	1.049667	3.584073	0.000417	0.001775	0.000383	0.001643
HLA-DQA1	2.079238	3.619192	0.000367	0.001587	0.000326	0.001437
HLA-DQB1	1.483232	2.739642	0.00666	0.018391	0.006208	0.017336
HLA-DRB1	0.24546	1.071231	0.28525	0.396767	0.283105	0.394484
HLA-F	0.155923	0.806234	0.420987	0.536798	0.419841	0.535084
HLA-G	0.226574	1.547978	0.123078	0.206301	0.124051	0.207561
HLF	0.462984	1.718226	0.087175	0.156848	0.085343	0.154452
HM13	-0.14645	-1.08998	0.276927	0.388216	0.279251	0.390271
HMG20A	0.067337	0.454316	0.650053	0.742828	0.650822	0.743525
HMGA1	0.558829	3.638864	0.000342	0.001496	0.000348	0.001512
HMGA2	-0.07418	-0.42471	0.671466	0.760089	0.671186	0.759406
HMGB1	0.515781	4.380103	1.84E-05	0.000124	2.16E-05	0.000141
HMGB3	0.077382	0.319667	0.749527	0.821351	0.748325	0.820322
HMGCL	0.092767	0.6358	0.525573	0.635993	0.526699	0.636439
HMGCR	-0.44335	-1.96856	0.050271	0.099862	0.049285	0.098278
HMGCS1	-0.72393	-2.10542	0.036399	0.075866	0.035068	0.073481
HMGCS2	0.715333	1.267988	0.206155	0.310853	0.202275	0.306233
HMGN3	0.9282	3.8846	0.000136	0.000693	0.000126	0.000646
HMGN4	0.232156	1.519907	0.129983	0.216026	0.130608	0.216604
HMOX1	-0.1291	-0.38002	0.704304	0.78627	0.702287	0.784691
HNF4A	0.6602	4.472547	1.24E-05	8.79E-05	1.29E-05	9.10E-05
HNMT	0.700985	4.527856	9.80E-06	7.10E-05	9.99E-06	7.27E-05
HNRPLL	0.830383	6.292643	1.69E-09	3.29E-08	1.98E-09	3.81E-08
HOMER1	1.03207	3.189015	0.001638	0.005643	0.001518	0.005296
HOMER2	0.565937	1.645654	0.101276	0.176819	0.098832	0.173779
HOMER3	0.512956	2.883741	0.004324	0.012829	0.004271	0.012666
HOOK1	0.770537	3.109197	0.002126	0.007042	0.002014	0.006713
HOOK2	0.308665	1.602669	0.110456	0.189606	0.109588	0.188324
HOXA2	1.251842	5.534044	8.94E-08	1.10E-06	7.79E-08	9.74E-07
HOXA4	0.096924	0.528203	0.597896	0.697991	0.597274	0.697264
HOXA5	0.56847	1.366012	0.173343	0.27148	0.169961	0.267163
HOXB13	-0.13452	-0.49043	0.624326	0.720612	0.622265	0.718992

HOXB2	0.896066	2.772762	0.006039	0.016867	0.005697	0.016033
HOXB4	0.854544	4.993544	1.21E-06	1.13E-05	1.18E-06	1.11E-05
HOXB7	0.794834	1.777303	0.076913	0.142543	0.074543	0.138958
HOXC9	0.35328	0.95246	0.341919	0.457498	0.338297	0.453377
HPCA	-0.49363	-4.97505	1.32E-06	1.22E-05	1.90E-06	1.67E-05
HPCAL1	0.082132	0.422811	0.67285	0.760771	0.672073	0.759861
HPGD	-1.25857	-2.14083	0.033398	0.070643	0.031894	0.067982
HPRT1	0.036172	0.284665	0.776171	0.839406	0.777589	0.840094
HPS1	0.626943	4.497214	1.12E-05	8.02E-05	1.20E-05	8.54E-05
HPS5	0.203281	1.148503	0.25202	0.361346	0.251476	0.360127
HRAS	-0.14855	-0.78375	0.434036	0.550005	0.433032	0.548696
HS2ST1	1.428688	7.846813	1.90E-13	1.13E-11	1.66E-13	1.02E-11
HS3ST2	1.226653	3.862729	0.000148	0.000742	0.000133	0.000678
HS3ST3A1	-0.00643	-0.01868	0.985116	0.990596	0.985009	0.990488
HS3ST3B1	0.619202	2.27485	0.023887	0.053641	0.023066	0.052245
HS6ST1	0.914154	7.506061	1.54E-12	6.88E-11	2.09E-12	9.11E-11
HSBP1	0.476657	3.06249	0.002471	0.008005	0.002498	0.00804
HSD11B2	-0.38315	-1.13292	0.258494	0.36749	0.255108	0.364218
HSD17B2	-0.35201	-0.62892	0.530062	0.640105	0.526532	0.636439
HSD17B3	0.821931	3.690205	0.000283	0.001279	0.000266	0.001213
HSD17B4	-0.16105	-1.21229	0.226712	0.333296	0.229106	0.336121
HSF2	0.234797	1.512409	0.131878	0.218634	0.132371	0.219005
HSF2BP	0.460043	2.467146	0.01439	0.035189	0.014192	0.034705
HSF4	0.009063	0.087416	0.930421	0.952511	0.931409	0.953125
HSPA14	0.714392	3.670339	0.000305	0.001357	0.000293	0.001312
HSPA1L	0.847836	7.873817	1.60E-13	9.79E-12	2.80E-13	1.66E-11
HSPA5	0.72228	4.291145	2.67E-05	0.00017	2.64E-05	0.000168
HSPA8	-0.16481	-1.33389	0.183631	0.284372	0.186869	0.28853
HSPB2	0.188158	1.157159	0.248474	0.357571	0.248645	0.357817
HSPB3	-0.99236	-2.85405	0.004733	0.013782	0.004437	0.013074
HSPB7	-0.10789	-0.70103	0.48403	0.596471	0.484688	0.596656
HSPBP1	0.433819	3.62923	0.000354	0.001539	0.000395	0.001685
HSPD1	0.684508	1.749926	0.081538	0.148596	0.079209	0.145423
HSPH1	0.605639	2.303189	0.022211	0.050651	0.021462	0.049063
HTATIP2	0.389261	1.740716	0.083144	0.150705	0.081846	0.149216
HTATSF1	0.46449	2.458693	0.014724	0.035911	0.014504	0.03539
HTR2A	1.031584	4.322736	2.34E-05	0.000152	2.13E-05	0.00014
HTR2B	-1.29944	-2.40618	0.016954	0.040326	0.016036	0.038492
HTR3A	0.672847	3.279169	0.001212	0.004341	0.001166	0.004191
HYAL1	1.037691	2.332797	0.02057	0.047487	0.019565	0.045567
HYAL2	0.520986	3.741089	0.000234	0.001087	0.000246	0.001135

HYOU1	0.126231	0.598303	0.550259	0.657568	0.548837	0.656074
IARS	0.038135	0.252714	0.800727	0.856577	0.801107	0.856897
IBTK	-0.05723	-0.39158	0.695753	0.779137	0.696529	0.779716
ICA1	0.445373	3.726132	0.000248	0.00114	0.000278	0.001252
ICAM3	-0.34765	-1.47267	0.142283	0.231184	0.140393	0.228876
ICMT	0.248807	1.577402	0.116153	0.197154	0.116497	0.197644
ICOS	-0.47114	-2.31715	0.021423	0.049052	0.021011	0.048219
ICOSLG	0.298167	2.938416	0.003654	0.011079	0.004188	0.01245
ICT1	-0.13249	-0.69428	0.488245	0.600092	0.487254	0.598717
ID2	0.211006	0.838234	0.402818	0.519123	0.400326	0.51662
ID3	-0.18625	-0.6733	0.501468	0.613938	0.498899	0.611268
ID4	0.713776	2.627748	0.009206	0.024132	0.008799	0.023194
IDE	0.583829	3.369306	0.000891	0.003356	0.000881	0.003311
IDH2	0.097038	0.363582	0.716523	0.79671	0.714962	0.795531
IDH3A	0.165036	0.835986	0.404078	0.520463	0.402788	0.518374
IDH3G	-0.0484	-0.39383	0.694088	0.777644	0.696291	0.779716
IDI1	-0.56591	-2.57004	0.010835	0.027677	0.010514	0.027046
IDS	0.891806	6.800352	9.88E-11	2.82E-09	1.18E-10	3.29E-09
IDUA	0.158948	1.382439	0.168251	0.265244	0.172485	0.269759
IER2	0.233376	1.078852	0.281846	0.392846	0.279992	0.390957
IER5	0.136492	0.55843	0.577124	0.682042	0.5752	0.67994
IFI27	0.161467	0.533574	0.59418	0.69538	0.591759	0.693756
IFI30	-0.14165	-0.73556	0.46279	0.577719	0.461713	0.576834
IFI35	0.317399	1.580934	0.115343	0.19592	0.114258	0.194641
IFI44L	-0.00828	-0.02133	0.982998	0.989101	0.982868	0.98897
IFIH1	0.489147	2.477033	0.014008	0.034434	0.013739	0.033862
IFIT1	0.964939	3.259615	0.001294	0.004602	0.001203	0.004316
IFIT2	0.841353	3.303874	0.001115	0.004031	0.001046	0.00383
IFITM2	0.912476	5.471699	1.22E-07	1.44E-06	1.20E-07	1.43E-06
IFNAR1	0.983615	7.623457	7.52E-13	3.68E-11	9.45E-13	4.49E-11
IFNGR1	-0.33782	-1.56584	0.118836	0.200765	0.117423	0.198574
IFNGR2	0.082738	0.45822	0.647251	0.74056	0.646775	0.740161
IFRD2	0.501922	3.030929	0.002733	0.008691	0.002729	0.008678
IGBP1	0.227866	1.479936	0.140334	0.2287	0.140911	0.229481
IGF1	1.768652	5.571133	7.42E-08	9.32E-07	6.02E-08	7.79E-07
IGF1R	1.672807	4.771762	3.34E-06	2.71E-05	2.83E-06	2.34E-05
IGF2R	1.22338	8.012014	6.75E-14	4.74E-12	6.91E-14	5.15E-12
IGFBP1	-1.12311	-3.61467	0.000374	0.001608	0.000341	0.00149
IGFBP2	-0.47195	-0.88631	0.376426	0.493089	0.372378	0.488877
IGFBP3	0.387606	1.034681	0.301964	0.415102	0.298321	0.410694
IGFBP5	1.136264	4.454164	1.35E-05	9.41E-05	1.20E-05	8.59E-05

IGFBP6	0.639692	2.191553	0.029471	0.063743	0.028449	0.06196
IGFBP7	0.353156	2.057426	0.040835	0.083701	0.040697	0.083454
IGHMBP2	0.525223	3.734507	0.00024	0.001109	0.000252	0.001154
IGSF3	0.280279	2.198316	0.028979	0.06291	0.029995	0.064579
IGSF8	-0.67479	-3.25576	0.001311	0.004655	0.001261	0.0045
IK	0.142336	1.077137	0.28261	0.393793	0.285167	0.397121
IKBKB	-0.25855	-1.41076	0.159742	0.253993	0.159029	0.252993
IL10RB	0.540512	2.666921	0.008229	0.021864	0.008027	0.021442
IL11RA	0.662958	4.636031	6.12E-06	4.67E-05	6.47E-06	4.94E-05
IL15	0.649408	3.226935	0.001444	0.005058	0.001395	0.004921
IL15RA	0.742802	4.553504	8.77E-06	6.40E-05	8.76E-06	6.42E-05
IL16	-0.20618	-1.2989	0.195349	0.298876	0.195721	0.299053
IL18	0.78988	2.423334	0.016195	0.038835	0.015464	0.037292
IL18R1	1.026096	3.295839	0.001145	0.004132	0.00106	0.003875
IL18RAP	0.682583	2.693962	0.00761	0.020498	0.007289	0.019807
IL1A	-0.56187	-2.85596	0.004705	0.013719	0.00459	0.013449
IL1B	-0.0912	-0.20807	0.83537	0.88052	0.834061	0.880077
IL1F5	-0.12638	-1.28851	0.198935	0.302392	0.206591	0.311011
IL1R1	1.236295	7.201992	9.52E-12	3.76E-10	8.88E-12	3.48E-10
IL1R2	0.16955	0.305107	0.760576	0.828535	0.758584	0.827551
IL1RAP	0.416755	2.126009	0.034627	0.072655	0.03414	0.071986
IL23A	-0.39472	-2.57813	0.010592	0.027175	0.010707	0.027409
IL27RA	0.416974	1.490173	0.137624	0.225456	0.135239	0.222324
IL2RA	0.481917	2.535068	0.011944	0.029955	0.011748	0.029558
IL2RG	0.312506	0.832735	0.405906	0.522101	0.40236	0.518203
IL4R	0.444261	3.845202	0.000158	0.000783	0.000182	0.00088
IL6ST	1.229702	6.465731	6.52E-10	1.45E-08	5.84E-10	1.30E-08
IL7R	0.015301	0.048453	0.9614	0.974252	0.961138	0.973986
ILF2	-0.10278	-0.65783	0.511338	0.623535	0.51184	0.624033
ILF3	0.130713	0.748342	0.45506	0.569773	0.454649	0.569371
ILK	-0.03907	-0.30674	0.759337	0.828048	0.760838	0.829069
ILVBL	0.3827	2.230312	0.026746	0.058934	0.02664	0.058756
IMMT	-0.40076	-3.07844	0.002348	0.007653	0.002481	0.008009
IMP4	0.222869	1.626659	0.105254	0.182275	0.106739	0.184169
IMPA1	0.017358	0.084684	0.93259	0.953907	0.932374	0.953679
IMPA2	-0.55901	-1.76682	0.078658	0.144864	0.076638	0.141977
IMPDH1	0.026241	0.162756	0.870861	0.905656	0.870932	0.90576
IMPDH2	0.422795	3.615352	0.000373	0.001605	0.000419	0.001776
ING1	0.009423	0.055881	0.955488	0.970048	0.955475	0.970225
ING3	0.801418	4.996765	1.20E-06	1.13E-05	1.20E-06	1.13E-05
ING5	-0.00422	-0.02197	0.982494	0.988806	0.982453	0.988764

INHBA	-0.09525	-0.29604	0.767482	0.833218	0.765925	0.832527
INHBB	1.11255	2.876281	0.004423	0.013075	0.004128	0.012318
INPP1	0.054462	0.237855	0.812217	0.86504	0.811398	0.864559
INPP5A	-0.06938	-0.3798	0.704465	0.78627	0.704006	0.78577
INPP5B	0.599255	3.995766	8.82E-05	0.000477	9.07E-05	0.000487
INPP5D	-0.47615	-3.37437	0.000876	0.003316	0.00091	0.003397
INPP5E	0.884192	5.156219	5.65E-07	5.73E-06	5.49E-07	5.61E-06
INPLL1	0.178502	1.331275	0.184489	0.285606	0.186633	0.28826
INSIG1	-0.50149	-1.75611	0.080473	0.147284	0.078602	0.144694
INSM1	-0.73355	-1.57072	0.117698	0.199273	0.114705	0.195189
INVS	0.18099	1.492772	0.136943	0.224888	0.140092	0.228623
IPO11	1.088293	6.741424	1.38E-10	3.77E-09	1.36E-10	3.73E-09
IPO8	0.519509	3.204808	0.001554	0.005395	0.001558	0.005381
IQCE	0.399764	2.233563	0.026528	0.05848	0.026318	0.058099
IQGAP1	0.134424	0.701281	0.483876	0.596438	0.482852	0.595488
IQGAP2	-0.21519	-1.16285	0.246163	0.355225	0.245292	0.354113
IQGAP3	0.219276	1.568215	0.118281	0.199972	0.119654	0.201641
IRAK1	-0.48355	-2.737	0.006712	0.018502	0.006645	0.018338
IRAK2	-0.0704	-0.44457	0.657069	0.747936	0.657363	0.747949
IREB2	0.929883	5.042629	9.65E-07	9.41E-06	9.14E-07	8.97E-06
IRF1	-0.39554	-1.70996	0.088697	0.159112	0.087247	0.157171
IRF2	0.822021	4.138722	4.99E-05	0.000294	4.73E-05	0.00028
IRF3	-0.71007	-5.92412	1.21E-08	1.83E-07	1.54E-08	2.28E-07
IRF4	0.318556	2.745044	0.006555	0.018165	0.007073	0.019315
IRF5	0.158639	0.487289	0.626543	0.722462	0.624145	0.72002
IRF7	1.004188	3.86703	0.000145	0.000735	0.000133	0.000679
IRF8	-0.36538	-1.27176	0.204813	0.309426	0.201989	0.306074
IRX3	0.514841	1.172438	0.242301	0.351594	0.238519	0.346856
IRX5	-0.68502	-1.868	0.063103	0.121105	0.061152	0.117986
ISG20	-0.38489	-1.36229	0.174513	0.272605	0.171872	0.269315
ISLR	-0.28826	-1.14095	0.255142	0.364046	0.252612	0.361313
ISYNA1	-0.16218	-1.25565	0.210587	0.316014	0.213317	0.318585
ITCH	0.810615	4.165751	4.47E-05	0.000267	4.26E-05	0.000257
ITGA10	0.282991	1.683854	0.093641	0.166899	0.093547	0.166673
ITGA2	-0.08547	-0.3177	0.751015	0.821941	0.749616	0.821066
ITGA6	0.720365	3.309698	0.001093	0.003975	0.001043	0.00382
ITGA7	-0.03219	-0.16384	0.87001	0.905258	0.869666	0.905054
ITGA8	0.284989	1.062642	0.28912	0.401555	0.286332	0.398272
ITGAE	0.013453	0.062889	0.949912	0.96657	0.949726	0.96653
ITGAV	1.137884	4.947681	1.50E-06	1.35E-05	1.34E-06	1.24E-05
ITGAX	0.234749	2.30254	0.022248	0.050687	0.024296	0.054434

ITGB1BP1	2.045977	4.744758	3.77E-06	3.04E-05	3.15E-06	2.57E-05
ITGB2	-0.31858	-1.79242	0.074452	0.138913	0.07409	0.138293
ITGB3	0.54497	3.736946	0.000238	0.001101	0.000246	0.001135
ITGB3BP	-0.14421	-0.63985	0.52294	0.633621	0.521158	0.631986
ITGB4	-0.59052	-2.57655	0.010639	0.02725	0.010291	0.026511
ITGB5	0.65246	3.771039	0.000209	0.000988	0.000206	0.000972
ITGB7	-0.5003	-3.18339	0.001668	0.005736	0.001683	0.005748
ITGB8	0.119447	0.510771	0.610028	0.708284	0.608367	0.706858
ITGBL1	-1.59358	-3.94763	0.000107	0.000559	9.39E-05	0.000503
ITIH2	0.386799	1.256219	0.210381	0.315956	0.207352	0.311957
ITIH4	0.617404	5.213791	4.29E-07	4.47E-06	5.28E-07	5.42E-06
ITM2A	0.863864	2.673045	0.008085	0.021568	0.007655	0.020629
ITM2C	-0.86099	-3.19237	0.00162	0.005597	0.001519	0.005296
ITPK1	0.182677	2.077307	0.038945	0.080386	0.043607	0.088495
ITPKA	-0.54542	-2.30325	0.022208	0.050651	0.021572	0.049289
ITPR1	0.348764	1.914264	0.056896	0.111114	0.056488	0.110531
ITPR2	0.78568	3.665993	0.00031	0.001374	0.000293	0.001312
ITPR3	-0.34092	-2.71603	0.007137	0.019388	0.007528	0.020346
ITSN2	0.224159	2.286373	0.023193	0.052432	0.025583	0.056824
IVD	-0.05072	-0.28601	0.775138	0.839049	0.774885	0.838389
IVNS1ABP	-0.16571	-0.68623	0.493295	0.605191	0.491158	0.603041
JAG2	0.198161	0.903841	0.367077	0.483403	0.365162	0.481284
JAK1	0.194741	1.1532	0.250091	0.359238	0.249929	0.358787
JAK2	0.440442	1.981023	0.048846	0.097443	0.047907	0.095774
JAK3	0.028544	0.305087	0.760591	0.828535	0.765097	0.831819
JAM3	0.385346	1.845835	0.066272	0.126258	0.065332	0.124518
JMJD1C	0.720127	3.489753	0.000585	0.002378	0.00056	0.002288
JPH3	0.219541	2.17555	0.030664	0.065809	0.0333	0.070341
JTB	0.488612	4.184748	4.14E-05	0.00025	4.83E-05	0.000284
JUN	1.129321	3.969165	9.79E-05	0.000524	8.85E-05	0.000478
JUNB	-0.34032	-1.56562	0.118889	0.200782	0.117445	0.198574
JUP	0.435784	1.27404	0.204006	0.308404	0.200769	0.304982
KAL1	-0.0209	-0.1039	0.917345	0.943135	0.9171	0.943082
KARS	0.296781	2.146551	0.032933	0.069791	0.03363	0.070975
KATNA1	0.186566	1.249988	0.212644	0.31785	0.213632	0.318752
KATNB1	-0.49869	-2.71804	0.007095	0.019323	0.006992	0.019138
KCMF1	0.137041	0.806252	0.420976	0.536798	0.42077	0.536085
KCNA3	0.058435	0.284368	0.776398	0.839446	0.775691	0.839067
KCNA5	0.834978	3.140112	0.001923	0.006469	0.001809	0.006117
KCNAB1	1.429183	7.484121	1.76E-12	7.78E-11	1.51E-12	6.83E-11
KCNAB2	0.156287	1.259705	0.209123	0.31442	0.212426	0.31776

KCNB1	0.29825	1.834527	0.067939	0.128911	0.068027	0.129027
KCND1	0.427224	2.759461	0.006282	0.017461	0.006345	0.017636
KCNE3	1.881665	5.002886	1.16E-06	1.10E-05	9.61E-07	9.28E-06
KCNF1	-0.06928	-0.50223	0.616015	0.713228	0.617475	0.714635
KCNG1	0.078953	0.610267	0.54232	0.650895	0.544724	0.653519
KCNH2	-0.86141	-3.48787	0.000589	0.00239	0.000551	0.002257
KCNJ10	-0.20234	-1.6263	0.10533	0.18234	0.107819	0.185759
KCNJ15	-0.12138	-0.31077	0.756275	0.826028	0.754456	0.824637
KCNJ3	-0.26069	-1.16141	0.246743	0.355734	0.244737	0.353656
KCNJ8	1.091558	4.643336	5.92E-06	4.55E-05	5.33E-06	4.15E-05
KCNK1	-0.24947	-0.86003	0.390719	0.506649	0.38773	0.504382
KCNK3	0.190128	0.609446	0.542864	0.651381	0.540148	0.648785
KCNK5	-0.91728	-3.05806	0.002507	0.008108	0.002347	0.00766
KCNK6	0.052453	0.212683	0.831773	0.878897	0.830923	0.878796
KCNMA1	-0.06477	-0.29585	0.767624	0.833218	0.766726	0.832994
KCNMB1	-0.08141	-0.53609	0.592444	0.694386	0.59311	0.695018
KCNMB2	0.239644	1.571544	0.117507	0.199092	0.118115	0.199547
KCNMB3	0.579247	2.772733	0.00604	0.016867	0.005863	0.016481
KCNMB4	0.948914	3.502971	0.000558	0.002281	0.000517	0.002136
KCNN3	0.809826	3.044328	0.002619	0.008385	0.002472	0.007997
KCNN4	0.220054	0.690488	0.490622	0.602541	0.487655	0.599053
KCNS1	0.242489	1.508654	0.132835	0.219823	0.133055	0.21981
KCNS3	-0.48273	-1.21664	0.225058	0.33211	0.221474	0.328266
KCTD15	0.869411	3.6804	0.000294	0.001315	0.000274	0.001243
KCTD5	-0.1752	-0.90165	0.368236	0.484386	0.367023	0.482737
KDELR1	0.300559	1.791244	0.074641	0.139102	0.074564	0.138958
KDELR2	0.867811	6.033619	6.81E-09	1.09E-07	7.33E-09	1.17E-07
KDR	1.436984	7.467029	1.95E-12	8.53E-11	1.66E-12	7.44E-11
KEAP1	-0.0479	-0.35578	0.722352	0.800532	0.723631	0.801571
KEL	0.230883	2.041068	0.042449	0.08648	0.04464	0.090318
KHDRBS1	1.120161	9.771129	6.19E-19	1.26E-16	1.08E-18	2.42E-16
KHDRBS3	-0.06127	-0.17575	0.860654	0.899305	0.859651	0.898457
KHK	-0.898	-5.33393	2.40E-07	2.67E-06	2.35E-07	2.63E-06
KIAA0182	0.516303	2.578998	0.010566	0.027123	0.010335	0.0266
KIAA0196	-0.18893	-1.05599	0.29214	0.404683	0.291504	0.40427
KIAA0319	1.00731	5.937833	1.13E-08	1.72E-07	1.09E-08	1.70E-07
KIAA0368	0.46526	3.010026	0.00292	0.009192	0.002954	0.009257
KIAA0528	0.093197	0.526408	0.59914	0.698922	0.598726	0.698613
KIAA0556	0.256907	1.677488	0.09488	0.168788	0.095394	0.169126
KIAA0664	0.171495	2.098281	0.037032	0.077082	0.042557	0.086513
KIAA0753	0.719566	4.259672	3.05E-05	0.000191	3.01E-05	0.000189

KIAA0776	0.570083	3.090206	0.002261	0.007433	0.002217	0.007301
KIAA0907	-0.27834	-1.52627	0.128392	0.213683	0.127766	0.212718
KIAA0922	-0.05537	-0.3854	0.700318	0.783503	0.701202	0.784118
KIAA1033	-0.016	-0.09767	0.922281	0.946118	0.9223	0.946052
KIAA1217	0.397366	1.972604	0.049805	0.099019	0.04911	0.098021
KIAA1324	0.798376	1.895366	0.059367	0.115157	0.05737	0.111853
KIAA1407	-0.62982	-3.50743	0.000549	0.002247	0.000538	0.002216
KIAA1632	0.659215	4.836554	2.50E-06	2.08E-05	2.72E-06	2.26E-05
KIAA1704	1.199685	7.639664	6.81E-13	3.40E-11	6.79E-13	3.43E-11
KIAA1715	1.087418	6.111549	4.49E-09	7.60E-08	4.21E-09	7.20E-08
KIF11	0.692673	2.713296	0.007194	0.019519	0.006883	0.018896
KIF1C	0.100587	0.452489	0.651367	0.743879	0.650018	0.743287
KIF21A	0.188344	0.716945	0.474175	0.588383	0.471685	0.586022
KIF21B	0.154714	0.728411	0.467144	0.582226	0.46552	0.580704
KIF23	-0.08195	-0.42427	0.671784	0.760153	0.671029	0.759406
KIF2C	-0.20174	-1.09563	0.274449	0.385393	0.273601	0.384087
KIF3C	0.957255	7.119541	1.55E-11	5.64E-10	1.82E-11	6.48E-10
KIF5B	-0.14237	-0.84118	0.401171	0.517568	0.400997	0.517344
KIF5C	-0.05598	-0.28937	0.77257	0.836847	0.772025	0.836642
KIFAP3	-0.07587	-0.35032	0.726436	0.80392	0.725422	0.80256
KIFC1	-0.02557	-0.25173	0.801486	0.85705	0.80444	0.859679
KIN	0.537684	3.164456	0.001776	0.006015	0.001764	0.005999
KIT	-0.05068	-0.14811	0.88239	0.9151	0.881551	0.914431
KLC2	1.285712	6.280639	1.80E-09	3.47E-08	1.57E-09	3.14E-08
KLF10	1.13407	4.703805	4.53E-06	3.60E-05	4.05E-06	3.24E-05
KLF11	0.883697	4.234323	3.38E-05	0.00021	3.16E-05	0.000197
KLF12	0.648142	4.361559	1.99E-05	0.000132	2.06E-05	0.000136
KLF3	0.257708	1.649368	0.100513	0.175943	0.100898	0.176489
KLF4	1.335778	4.559048	8.56E-06	6.27E-05	7.48E-06	5.58E-05
KLF5	0.085744	0.327111	0.743898	0.816951	0.742509	0.815753
KLF6	0.374919	1.673401	0.095683	0.16983	0.094279	0.167655
KLF7	1.216528	4.68724	4.88E-06	3.83E-05	4.30E-06	3.42E-05
KLF8	0.567518	5.002528	1.16E-06	1.10E-05	1.47E-06	1.33E-05
KLHDC3	0.056649	0.277388	0.781745	0.842707	0.78107	0.842559
KLHDC4	0.478196	4.022557	7.94E-05	0.000435	9.07E-05	0.000487
KLHL3	-0.40748	-2.83708	0.004982	0.014419	0.005109	0.014696
KLHL5	1.939904	7.739191	3.69E-13	2.07E-11	2.71E-13	1.63E-11
KLHL7	0.185969	0.63592	0.525495	0.635993	0.522861	0.633526
KLHL8	1.116292	5.314316	2.64E-07	2.91E-06	2.37E-07	2.65E-06
KLHL9	0.23947	1.71125	0.088457	0.158744	0.089636	0.160613
KLK11	1.436998	2.815174	0.005322	0.015186	0.004948	0.014293

KLK6	1.280834	2.39	0.017699	0.041782	0.016753	0.039909
KLK7	1.404798	2.826434	0.005145	0.014807	0.004783	0.013919
KLKB1	-1.07374	-7.0721	2.05E-11	7.07E-10	2.12E-11	7.26E-10
KLRB1	0.053297	0.176116	0.860367	0.899205	0.859459	0.898456
KLRC3	-0.15884	-0.57244	0.567613	0.673483	0.56528	0.670913
KLRG1	-0.00651	-0.03337	0.973411	0.982188	0.973343	0.982134
KNDC1	-0.45647	-3.96706	9.87E-05	0.000527	0.000115	0.000596
KPNA4	0.526956	3.477006	0.000612	0.002475	0.000624	0.002518
KPNA6	0.827969	5.489014	1.12E-07	1.34E-06	1.16E-07	1.39E-06
KPNB1	0.549263	3.604161	0.000388	0.001664	0.000396	0.001685
KPTN	1.078729	6.258709	2.03E-09	3.88E-08	1.93E-09	3.75E-08
KRAS	1.011173	4.308236	2.49E-05	0.00016	2.27E-05	0.000148
KRT10	0.704577	3.705198	0.000268	0.001215	0.000259	0.001183
KRT13	-1.59184	-3.52754	0.000511	0.00211	0.00046	0.001931
KRT14	-1.05086	-3.40957	0.000775	0.002991	0.000714	0.002812
KRT15	-1.23067	-3.11648	0.002077	0.006892	0.001915	0.006431
KRT16	-1.05216	-2.99838	0.003029	0.009486	0.002822	0.008931
KRT19	-1.06807	-4.10126	5.80E-05	0.000333	5.26E-05	0.000304
KRT20	-2.41871	-3.76101	0.000217	0.001018	0.000191	0.000914
KRT7	0.131527	0.598418	0.550183	0.657568	0.548578	0.656074
KRT8	-0.36667	-2.18477	0.029972	0.064618	0.029923	0.064453
KRTCAP2	0.362995	3.714635	0.000259	0.001185	0.000326	0.001435
KTN1	0.335748	2.069626	0.039666	0.081553	0.039734	0.081836
KYNU	-0.5691	-1.8198	0.07016	0.132485	0.068283	0.12946
LICAM	0.337545	1.213766	0.226151	0.332686	0.223352	0.330319
LACTB	0.677554	3.240014	0.001382	0.004877	0.001328	0.004714
LACTB2	0.419425	1.215353	0.225546	0.332455	0.222206	0.328935
LAD1	0.131066	0.621781	0.534736	0.643844	0.533283	0.642181
LAIR1	0.286911	2.454289	0.0149	0.036266	0.015835	0.038108
LAIR2	0.370914	1.298435	0.19551	0.298944	0.192739	0.295747
LAMA2	0.355246	1.496869	0.135874	0.223289	0.134001	0.220998
LAMA3	0.234626	1.536086	0.125967	0.210393	0.126583	0.211224
LAMA5	-0.40444	-1.7834	0.075913	0.141105	0.074637	0.139038
LAMB1	0.593693	2.472986	0.014163	0.034707	0.013692	0.033763
LAMC1	1.246744	8.460857	3.87E-15	4.14E-13	4.11E-15	4.40E-13
LAMC3	0.454926	3.970957	9.72E-05	0.000521	0.000113	0.00059
LAMP1	0.288993	1.329076	0.185212	0.286348	0.183492	0.28425
LAMP2	1.577173	8.80184	4.20E-16	5.64E-14	3.57E-16	4.79E-14
LANCL1	1.283495	6.161396	3.44E-09	6.08E-08	2.99E-09	5.46E-08
LANCL2	0.378936	1.564425	0.119168	0.201066	0.117335	0.198574
LAPTM5	-0.06307	-0.406	0.685141	0.770933	0.685533	0.770814

LARGE	-0.27953	-1.99895	0.046856	0.094031	0.047668	0.095377
LARS2	1.009568	5.716071	3.56E-08	4.85E-07	3.38E-08	4.63E-07
LASP1	0.185331	1.048378	0.295625	0.408779	0.295083	0.407636
LASS6	0.94279	3.741106	0.000234	0.001087	0.000217	0.001014
LATS2	0.784334	5.760977	2.83E-08	3.94E-07	3.17E-08	4.36E-07
LBR	0.234808	1.271564	0.204883	0.309431	0.204061	0.308189
LCAT	0.216536	2.216475	0.027692	0.060615	0.030421	0.065316
LCK	-0.90013	-3.76407	0.000215	0.001009	0.0002	0.000948
LCN2	-0.64438	-1.10214	0.271617	0.382468	0.267484	0.377417
LCP1	-0.31919	-1.86966	0.062871	0.120857	0.062719	0.120515
LCP2	0.079321	0.573745	0.566732	0.672806	0.568313	0.674003
LDB2	1.298996	5.489748	1.11E-07	1.34E-06	9.62E-08	1.17E-06
LDB3	0.141533	0.769216	0.442598	0.558146	0.441801	0.557142
LDHA	0.171996	1.274183	0.203955	0.308404	0.20608	0.310441
LDHB	-0.19711	-0.57227	0.567732	0.673483	0.564938	0.67091
LDLR	-0.24094	-1.65162	0.100051	0.175588	0.100956	0.176523
LEFTY2	0.470925	2.251426	0.025356	0.056426	0.024843	0.055476
LEMD3	1.013427	5.855469	1.73E-08	2.52E-07	1.66E-08	2.45E-07
LEPR	0.916693	2.539073	0.011812	0.029688	0.011198	0.028448
LEPRE1	0.713838	4.403856	1.67E-05	0.000113	1.67E-05	0.000113
LEPREL1	-0.27615	-1.05598	0.292147	0.404683	0.289447	0.401654
LEPROTL1	-0.42002	-2.62972	0.009154	0.02401	0.009195	0.024064
LETM1	0.132071	0.944199	0.346113	0.461636	0.347926	0.46403
LFNG	0.483911	2.200577	0.028816	0.062643	0.028169	0.061407
LGALS2	0.924394	1.77202	0.077788	0.143712	0.075303	0.140057
LGALS3	0.533687	2.716553	0.007126	0.019371	0.006968	0.019084
LGALS3BP	0.661179	3.17036	0.001741	0.005922	0.001676	0.00573
LGALS4	-0.82067	-1.76247	0.079391	0.14566	0.07695	0.142453
LGALS9	-0.26954	-1.23961	0.216454	0.322451	0.214657	0.320078
LGI4	0.144092	1.465925	0.14411	0.233477	0.150917	0.242997
LGMN	0.350753	1.671427	0.096072	0.170239	0.094902	0.168443
LGR5	0.120164	0.21963	0.826365	0.875347	0.824903	0.873996
LHFP	0.087731	0.484667	0.628399	0.723891	0.627888	0.72348
LHFPL2	0.431413	2.296306	0.022608	0.051358	0.022321	0.050878
LIAS	-0.35186	-1.29582	0.196409	0.299813	0.193786	0.296869
LIFR	2.009257	5.370921	2.00E-07	2.27E-06	1.62E-07	1.87E-06
LIG1	-0.42179	-2.552	0.011395	0.028823	0.01139	0.028829
LIG3	-0.17329	-0.9248	0.356094	0.471715	0.355122	0.470426
LIG4	0.581293	3.296132	0.001144	0.004131	0.001128	0.004078
LILRB2	0.481711	2.605369	0.00981	0.025459	0.009669	0.025136
LILRB3	0.285815	2.6097	0.00969	0.025176	0.010563	0.027128

LILRB4	-0.02361	-0.17912	0.858011	0.897142	0.85877	0.898136
LIMD1	0.505378	2.893402	0.004198	0.012487	0.004158	0.012389
LIMK1	0.02541	0.209893	0.833947	0.880214	0.835271	0.880415
LIMK2	-0.03396	-0.14035	0.88851	0.920431	0.88796	0.919862
LIMS1	0.021628	0.167204	0.867364	0.904338	0.868148	0.904472
LIMS3	0.571103	3.182975	0.001671	0.005739	0.001643	0.005634
LIN7A	-0.10347	-0.53778	0.59128	0.693509	0.590393	0.692846
LIPA	0.31377	1.518143	0.130427	0.216687	0.129144	0.214479
LIPC	1.737303	3.930547	0.000114	0.000593	0.0001	0.000531
LIPG	0.484716	1.016989	0.310286	0.423962	0.306297	0.419952
LITAF	0.755067	3.145094	0.001892	0.006383	0.001795	0.006087
LMAN1	-0.1016	-0.52924	0.597175	0.697496	0.59631	0.697005
LMCD1	0.435969	1.266364	0.206734	0.311511	0.203472	0.307498
LMLN	0.335443	2.441256	0.015434	0.037348	0.015857	0.038142
LMNA	0.320295	1.697959	0.090942	0.162521	0.090249	0.161465
LMNB2	-0.08311	-0.5098	0.610705	0.708895	0.610825	0.708859
LMO7	-0.27463	-1.09773	0.273533	0.384222	0.271018	0.381487
LMOD1	0.096706	0.575926	0.565259	0.671397	0.565174	0.670913
LNPEP	1.367909	6.750167	1.32E-10	3.62E-09	1.13E-10	3.21E-09
LOC283174	-0.34755	-2.70499	0.00737	0.019955	0.007727	0.020753
LOC285033	0.691703	4.901465	1.86E-06	1.62E-05	1.99E-06	1.73E-05
LOXL2	0.071021	0.595425	0.552177	0.65902	0.555596	0.662431
LPHN3	0.779837	2.608457	0.009724	0.025251	0.009257	0.024199
LPIN2	0.380385	1.613209	0.108146	0.186185	0.106479	0.183855
LPL	3.165429	6.328708	1.39E-09	2.79E-08	1.01E-09	2.11E-08
LPP	1.622622	8.765047	5.34E-16	6.61E-14	4.42E-16	5.61E-14
LPPR2	0.226848	2.251513	0.02535	0.056426	0.027679	0.060621
LPXN	-0.45808	-3.83286	0.000166	0.000813	0.000187	0.000899
LRBA	0.119884	0.594125	0.553045	0.659556	0.551844	0.658793
LRCH3	0.512784	3.405566	0.000786	0.003025	0.000802	0.003096
LRCH4	0.466755	3.953838	0.000104	0.000549	0.000119	0.000616
LRFN3	1.359066	6.403549	9.20E-10	1.96E-08	7.85E-10	1.69E-08
LRMP	-0.64725	-1.62527	0.10555	0.182653	0.102863	0.178836
LRP11	0.962568	4.026919	7.80E-05	0.000429	7.18E-05	0.000398
LRP3	0.241043	1.386026	0.167155	0.263634	0.166788	0.263231
LRP4	0.36716	0.923602	0.356715	0.472137	0.352988	0.468524
LRP5	0.130132	0.866971	0.386911	0.503735	0.387885	0.504444
LRPAP1	-0.06666	-0.39806	0.690977	0.775081	0.690928	0.775212
LRPPRC	-0.21722	-1.28851	0.198934	0.302392	0.198791	0.302858
LRRC17	0.109463	0.419793	0.67505	0.761944	0.673341	0.760732
LRRFIP1	-0.10801	-0.69568	0.487373	0.599334	0.487946	0.599255

LRRFIP2	-0.72364	-3.7931	0.000193	0.000922	0.000186	0.000896
LRRK2	0.575135	2.435814	0.015661	0.037736	0.015169	0.036807
LRSAM1	-0.03825	-0.2911	0.771252	0.83584	0.772475	0.836937
LSAMP	1.213007	6.178383	3.14E-09	5.72E-08	2.80E-09	5.14E-08
LSM1	0.17682	1.079975	0.281346	0.392423	0.281459	0.392773
LSM10	0.317078	2.63093	0.009123	0.023966	0.009692	0.025182
LSM11	0.627318	3.975642	9.55E-05	0.000513	9.65E-05	0.000514
LSM3	0.257758	1.715633	0.08765	0.157535	0.088277	0.158662
LSM4	-0.98408	-5.57653	7.22E-08	9.11E-07	6.88E-08	8.65E-07
LSM5	1.216522	6.446155	7.27E-10	1.61E-08	6.54E-10	1.44E-08
LSM6	1.037391	6.992598	3.26E-11	1.05E-09	3.44E-11	1.12E-09
LSM7	-0.20116	-1.35579	0.176569	0.275157	0.177559	0.276151
LSS	-0.34802	-1.70257	0.090074	0.161275	0.089042	0.159793
LST1	0.000863	0.005356	0.995731	0.997641	0.995734	0.997644
LTA4H	0.285607	1.349923	0.178441	0.27743	0.176874	0.275267
LTB	-0.11738	-0.61695	0.537913	0.647093	0.537004	0.646
LTBP1	0.085554	0.39851	0.690644	0.774893	0.68954	0.774024
LTBR	0.001262	0.012469	0.990063	0.99433	0.990216	0.994345
LTF	-2.22924	-3.6391	0.000342	0.001496	0.000303	0.001347
LUM	0.759474	3.600786	0.000393	0.00168	0.000374	0.001608
LUZP1	0.773921	5.797363	2.34E-08	3.34E-07	2.67E-08	3.75E-07
LY6E	-0.42963	-1.47758	0.140964	0.229549	0.138459	0.226351
LY6G5C	0.432768	2.150929	0.032582	0.069198	0.032055	0.068265
LY75	0.826123	2.268201	0.024297	0.054438	0.023253	0.052645
LY9	-0.36774	-1.99765	0.046997	0.094235	0.046599	0.093557
LY96	0.382806	1.522725	0.129277	0.215004	0.127255	0.212016
LYN	-0.36196	-1.63798	0.102867	0.179066	0.10146	0.177128
LYNX1	0.388468	2.966123	0.003352	0.01029	0.003524	0.010734
LYPLA2	0.232419	1.746248	0.082177	0.149482	0.083728	0.152057
LYPLAL1	0.58539	3.056042	0.002523	0.008144	0.002461	0.007967
LYZ	0.036547	0.068685	0.945303	0.963549	0.944839	0.963076
M6PR	-0.02099	-0.13009	0.896617	0.927807	0.896673	0.927865
MAD1L1	-0.2922	-0.89756	0.370408	0.486697	0.367086	0.482737
MAD2L1	-0.32423	-1.52752	0.128081	0.213309	0.12669	0.211224
MADCAM1	0.7617	3.026008	0.002776	0.008804	0.002633	0.008419
MADD	0.236765	2.183367	0.030076	0.064764	0.032116	0.068363
MAF	-0.11439	-0.61749	0.537559	0.646833	0.536809	0.646
MAFB	0.200233	0.884714	0.377286	0.494077	0.37522	0.491479
MAG	0.318121	3.460821	0.000648	0.002594	0.000827	0.003158
MAGEA10	1.423942	4.068594	6.61E-05	0.000373	5.84E-05	0.000333
MAGED2	-0.20633	-1.32384	0.186941	0.288452	0.187473	0.289272

MAGEF1	1.080631	5.371774	1.99E-07	2.27E-06	1.82E-07	2.09E-06
MAGI1	1.421604	10.44643	5.68E-21	1.78E-18	6.83E-21	2.01E-18
MAGOH	0.42709	2.49925	0.013183	0.032783	0.013124	0.032636
MAL	-0.60864	-1.48023	0.140254	0.228649	0.137153	0.224841
MALT1	0.149725	0.65701	0.511867	0.623743	0.510012	0.622288
MAMDC2	1.251585	3.245929	0.001355	0.004792	0.001243	0.004447
MAN1A1	1.211075	4.197816	3.93E-05	0.00024	3.50E-05	0.000217
MAN1A2	1.51474	10.84096	3.50E-22	1.43E-19	3.98E-22	1.70E-19
MAN1B1	0.232747	1.490381	0.137569	0.225445	0.138024	0.225953
MAN2A2	0.244025	1.55386	0.121668	0.204375	0.122054	0.204982
MAN2C1	0.347926	2.394507	0.017489	0.04141	0.017792	0.041875
MANBA	0.326275	1.905225	0.058067	0.113148	0.057908	0.112698
MAOA	0.9326	2.497934	0.013231	0.032885	0.012551	0.031344
MAOB	-0.03864	-0.21617	0.829059	0.877805	0.828843	0.877489
MAP1A	0.647461	4.317978	2.39E-05	0.000154	2.47E-05	0.000158
MAP2K1	-0.38591	-2.81628	0.005304	0.015145	0.005493	0.015563
MAP2K3	0.152348	0.722799	0.470578	0.585265	0.469	0.583611
MAP2K4	0.095173	0.562083	0.574637	0.679787	0.574496	0.679449
MAP2K5	-0.25968	-1.96779	0.05036	0.099997	0.05158	0.102332
MAP3K11	0.631466	6.658482	2.22E-10	5.69E-09	4.32E-10	1.01E-08
MAP3K14	0.992537	5.236148	3.85E-07	4.05E-06	3.60E-07	3.81E-06
MAP3K4	0.525038	3.620333	0.000366	0.001583	0.000379	0.001627
MAP3K6	-0.22166	-1.49893	0.135338	0.222642	0.136259	0.223687
MAP3K7	0.256698	1.928429	0.055101	0.108176	0.056329	0.110311
MAP4	-0.23264	-1.76843	0.078387	0.144478	0.08	0.146361
MAP4K1	-0.60404	-4.91974	1.71E-06	1.51E-05	2.00E-06	1.74E-05
MAP4K2	-0.43196	-2.31354	0.021625	0.049458	0.021358	0.048859
MAP4K3	1.244394	5.936897	1.13E-08	1.72E-07	9.94E-09	1.56E-07
MAP4K4	0.885865	3.877868	0.00014	0.000709	0.00013	0.000666
MAP4K5	0.708509	3.940396	0.00011	0.000573	0.000107	0.000561
MAPK1	-0.02698	-0.16102	0.872225	0.906158	0.872204	0.906136
MAPK10	0.163131	1.215205	0.225602	0.332455	0.227856	0.335103
MAPK11	0.598213	5.255508	3.51E-07	3.73E-06	4.49E-07	4.69E-06
MAPK14	0.268021	1.575329	0.116631	0.197893	0.116449	0.197644
MAPK4	0.214038	1.919454	0.056232	0.110076	0.058985	0.114368
MAPK6	0.13872	0.83967	0.402013	0.518513	0.402048	0.518131
MAPK7	0.257044	1.923612	0.055706	0.109181	0.056915	0.111181
MAPK8IP3	0.140115	1.463762	0.144699	0.234351	0.152086	0.244629
MAPK9	0.150882	0.969567	0.333337	0.448392	0.333945	0.448953
MAPKAP1	0.534167	3.316563	0.001068	0.003893	0.001072	0.003905
MAPKAPK2	-0.21499	-1.55625	0.121099	0.203565	0.122606	0.20573

MAPKAPK3	1.048648	7.259878	6.75E-12	2.69E-10	7.34E-12	2.95E-10
MAPKAPK5	-0.44281	-2.53404	0.011978	0.029999	0.01189	0.029869
MAPRE1	0.25821	2.008367	0.045838	0.092305	0.047158	0.094542
MAPRE2	0.702228	3.956047	0.000103	0.000545	0.000101	0.000534
MAPRE3	-0.1641	-1.34404	0.180332	0.279815	0.183724	0.284384
MAPT	1.396887	9.063894	7.41E-17	1.12E-14	7.37E-17	1.12E-14
MARCKS	0.336574	1.647286	0.10094	0.176477	0.099848	0.175172
MARCKSL1	0.260332	1.255944	0.21048	0.315956	0.208945	0.313851
MARK3	-0.12994	-0.90682	0.365506	0.481738	0.367015	0.482737
MARS	-0.04099	-0.20874	0.834845	0.880324	0.834412	0.880102
MARVELD3	0.284505	1.080216	0.28124	0.392423	0.278523	0.389484
MAT2B	-0.0434	-0.37917	0.704934	0.786396	0.707776	0.788655
MATN2	-0.91948	-2.13022	0.034274	0.072139	0.032855	0.06962
MAX	-0.25418	-1.51086	0.132272	0.21921	0.132159	0.218791
MBD1	0.134357	0.835334	0.404444	0.520661	0.404721	0.52072
MBD2	0.244365	2.527478	0.012197	0.03051	0.013775	0.033913
MBD3	0.268171	2.957352	0.003445	0.010527	0.004174	0.012417
MBD4	0.458166	2.567444	0.010914	0.027798	0.010805	0.027614
MBIP	2.149688	8.344452	8.19E-15	8.02E-13	5.67E-15	5.79E-13
MBNL1	-0.63456	-3.41786	0.000753	0.00294	0.000734	0.002881
MBNL2	0.136624	0.539427	0.590143	0.692379	0.588155	0.691082
MBNL3	1.379097	5.328576	2.46E-07	2.72E-06	2.10E-07	2.39E-06
MBP	0.141302	1.186566	0.23669	0.344623	0.240748	0.349449
MBTPS1	0.081853	0.659183	0.510474	0.622853	0.513535	0.625613
MCART1	0.582253	3.367724	0.000896	0.003363	0.000886	0.003328
MCFD2	0.213064	1.460299	0.145647	0.235562	0.146726	0.237388
MCL1	0.45661	2.114724	0.035589	0.074342	0.03488	0.073185
MCM3	-0.49618	-2.63056	0.009133	0.023966	0.00898	0.023591
MCM6	-0.42686	-2.98766	0.003133	0.009739	0.003224	0.009983
MCM7	-0.27712	-1.23606	0.217768	0.323895	0.215819	0.321404
MCRS1	-0.0835	-0.61418	0.539737	0.648855	0.541572	0.650321
MCTS1	-1.09618	-7.0737	2.03E-11	7.06E-10	2.06E-11	7.12E-10
MDH1	0.550619	3.866206	0.000146	0.000737	0.000153	0.000763
MDH2	0.07371	0.452156	0.651606	0.743879	0.651716	0.743643
MDK	-0.06365	-0.16625	0.868117	0.904671	0.867118	0.904244
MDM2	-0.05677	-0.24004	0.810524	0.86402	0.80964	0.863273
MDM4	0.56828	2.003222	0.046392	0.09322	0.045052	0.091033
ME2	-0.16553	-0.76137	0.447259	0.562214	0.445484	0.560283
ME3	0.664462	5.040271	9.76E-07	9.48E-06	1.09E-06	1.04E-05
MED12	0.319203	2.253552	0.025219	0.056176	0.025707	0.057072
MED19	0.561906	3.561756	0.000452	0.001903	0.000457	0.001923

MED28	0.358227	2.19208	0.029432	0.063718	0.029463	0.063815
MED4	0.837232	5.478326	1.18E-07	1.40E-06	1.21E-07	1.44E-06
MED6	0.549721	3.895064	0.000131	0.000671	0.000137	0.000695
MEF2A	1.839698	10.95138	1.60E-22	7.50E-20	1.32E-22	6.21E-20
MEF2C	0.068697	0.373593	0.70907	0.78991	0.70859	0.789375
MEF2D	0.287578	2.44029	0.015474	0.037411	0.016404	0.039175
MEG3	0.406933	2.421106	0.016292	0.038987	0.016255	0.038898
MEIS2	0.36475	0.941871	0.347301	0.462806	0.343608	0.459186
MEN1	0.535335	3.687901	0.000286	0.001285	0.000296	0.001322
MEOX1	0.927845	2.968548	0.003327	0.010219	0.003119	0.009694
MERTK	0.225941	0.915605	0.360886	0.476585	0.358422	0.473597
MESP1	0.509619	4.979492	1.30E-06	1.20E-05	1.80E-06	1.59E-05
MEST	0.990739	2.128924	0.034382	0.072271	0.032927	0.06971
MET	0.796058	2.996339	0.003049	0.009521	0.002883	0.0091
METAP2	0.576707	3.04553	0.002609	0.00837	0.00255	0.008175
MFAP1	-0.0944	-0.73155	0.465229	0.580301	0.467919	0.583193
MFAP3	1.333981	6.630213	2.60E-10	6.57E-09	2.25E-10	5.84E-09
MFAP4	0.311321	1.367196	0.172972	0.270989	0.171085	0.268391
MFGE8	0.829896	7.186116	1.05E-11	4.10E-10	1.52E-11	5.66E-10
MFHAS1	0.953291	3.705283	0.000268	0.001215	0.000247	0.001136
MFI2	0.073967	0.335309	0.737714	0.812169	0.736689	0.811556
MFN2	-0.01517	-0.07879	0.937274	0.957377	0.937124	0.957321
MFNG	0.97633	4.667155	5.33E-06	4.15E-05	4.92E-06	3.85E-05
MGA	0.595501	3.051796	0.002557	0.008238	0.002489	0.008023
MGAT1	0.203124	1.565016	0.11903	0.200948	0.121178	0.203825
MGAT2	0.020526	0.129764	0.896873	0.927867	0.896969	0.927967
MGAT3	-0.11902	-1.06837	0.286537	0.398321	0.291925	0.404495
MGLL	0.886208	3.548082	0.000475	0.001988	0.000443	0.00187
MGMT	0.64502	2.509904	0.012803	0.031923	0.012316	0.030857
MGP	-0.57773	-1.74502	0.082391	0.149725	0.080251	0.146697
MGST1	-0.12788	-0.28156	0.778551	0.840228	0.776792	0.839679
MGST2	-0.30793	-1.5085	0.132876	0.219823	0.13164	0.218086
MGST3	0.027637	0.25732	0.797175	0.85444	0.79969	0.856352
MIB1	0.770608	2.903245	0.004073	0.012161	0.003864	0.011611
MICA	-0.74077	-2.44845	0.015137	0.036748	0.01448	0.035353
MID1	0.548512	1.76322	0.079264	0.145597	0.077262	0.142896
MINPP1	1.006794	3.914625	0.000121	0.000627	0.000111	0.000581
MIPEP	-0.4501	-2.04884	0.041675	0.085089	0.040852	0.083698
MITF	0.96238	4.182632	4.18E-05	0.000252	3.84E-05	0.000235
MKI67	0.591301	2.963449	0.00338	0.010356	0.003285	0.010119
MKKS	0.410885	2.398	0.017328	0.041089	0.017251	0.040764

MKL2	0.233375	1.619909	0.106698	0.184096	0.107739	0.185689
MKNK1	0.680688	2.882211	0.004344	0.012873	0.004159	0.012389
MKNK2	0.253576	1.549159	0.122794	0.205898	0.122873	0.206105
MKRN1	-0.04342	-0.2751	0.783503	0.844182	0.78371	0.844438
MLF1IP	-0.58368	-2.17439	0.030753	0.065908	0.029791	0.064257
MLF2	0.180087	1.145776	0.253144	0.361744	0.253638	0.362451
MLH1	0.3374	1.428355	0.154621	0.247814	0.152665	0.245308
MLH3	0.325668	2.128566	0.034412	0.072301	0.034689	0.072818
MLL	0.567974	3.178733	0.001694	0.005794	0.001668	0.005705
MLL5	1.277668	7.002951	3.07E-11	1.00E-09	2.76E-11	9.13E-10
MLLT10	-0.28169	-1.72433	0.086066	0.155103	0.086141	0.155596
MLN	-0.12871	-0.45926	0.646502	0.74056	0.644495	0.738811
MLPH	0.610529	1.672032	0.095953	0.170116	0.093494	0.166673
MLYCD	-0.01109	-0.06467	0.948499	0.966056	0.948468	0.966147
MMD	1.170265	6.004849	7.92E-09	1.25E-07	7.14E-09	1.15E-07
MME	0.017122	0.040542	0.967698	0.978525	0.967441	0.978265
MMP1	0.694641	1.041261	0.298908	0.411622	0.294654	0.407621
MMP10	-1.16957	-2.15228	0.032474	0.068999	0.03102	0.066394
MMP11	-0.31035	-1.66006	0.09834	0.173536	0.097662	0.172367
MMP15	0.391839	3.365008	0.000904	0.003387	0.001006	0.003706
MMP2	0.351226	1.943944	0.053189	0.105081	0.052828	0.104368
MMP25	-0.33602	-3.6037	0.000389	0.001664	0.0005	0.002073
MMP7	2.587313	4.051129	7.09E-05	0.000394	6.11E-05	0.000346
MMP9	-0.40247	-0.87245	0.383925	0.501236	0.380037	0.496297
MMRN2	2.438732	11.91245	1.58E-25	1.48E-22	9.59E-26	1.50E-22
MN1	0.318793	1.046752	0.296373	0.409559	0.293191	0.40613
MNAT1	0.383501	2.19078	0.029528	0.063749	0.029361	0.06368
MNDA	0.531884	2.033589	0.043205	0.087639	0.04204	0.085647
MNT	0.123501	1.088129	0.277739	0.389084	0.282758	0.394234
MOAP1	0.431366	2.545637	0.011599	0.029214	0.011557	0.029186
MOBKL2A	0.481985	4.971619	1.34E-06	1.24E-05	1.98E-06	1.73E-05
MOCS1	0.850088	4.700734	4.59E-06	3.63E-05	4.41E-06	3.50E-05
MOCS2	0.842468	5.833383	1.95E-08	2.80E-07	2.08E-08	3.00E-07
MOCS3	0.186614	1.127415	0.260806	0.370553	0.260819	0.370347
MOSPD3	-0.25505	-1.73441	0.084258	0.152313	0.085025	0.153995
MPDU1	0.501909	3.546753	0.000477	0.001994	0.000497	0.002065
MPDZ	0.604757	4.400913	1.69E-05	0.000114	1.81E-05	0.000122
MPHOSPH6	-0.22335	-1.38738	0.166744	0.263074	0.166975	0.263438
MPI	0.011374	0.096157	0.923484	0.946854	0.924163	0.947342
MPP1	-0.03293	-0.16514	0.86899	0.904797	0.868618	0.904472
MPP2	1.278192	12.12448	3.37E-26	7.73E-23	8.89E-26	1.50E-22

MPP3	0.349608	2.188177	0.029719	0.064103	0.029822	0.064266
MPP6	1.111058	3.044762	0.002615	0.008385	0.002427	0.007879
MPST	-1.07145	-5.06212	8.81E-07	8.66E-06	7.98E-07	7.95E-06
MPV17	0.045774	0.28465	0.776183	0.839406	0.776315	0.839356
MPZL1	0.08785	0.537601	0.591401	0.693509	0.591508	0.693635
MR1	1.021747	5.902542	1.36E-08	2.02E-07	1.30E-08	1.94E-07
MRAS	1.037757	7.086766	1.88E-11	6.69E-10	2.01E-11	7.00E-10
MRE11A	-0.14981	-0.70739	0.48008	0.593003	0.478494	0.591405
MRP63	0.05087	0.274902	0.783652	0.844182	0.783267	0.844348
MRPL1	0.295502	1.611644	0.108486	0.186635	0.107877	0.185791
MRPL14	-0.05067	-0.25261	0.800808	0.856577	0.800233	0.856352
MRPL16	0.017613	0.10023	0.920254	0.945398	0.920174	0.945316
MRPL19	0.859101	3.225328	0.001452	0.00508	0.001361	0.004822
MRPL21	0.470721	2.403474	0.017077	0.040598	0.016778	0.039949
MRPL22	-0.06039	-0.43495	0.664031	0.753488	0.665282	0.754907
MRPL23	-0.25595	-1.7788	0.076666	0.142287	0.077547	0.143154
MRPL28	0.649983	4.126109	5.25E-05	0.000306	5.31E-05	0.000307
MRPL33	0.94566	7.127134	1.48E-11	5.48E-10	1.77E-11	6.40E-10
MRPL39	-0.53376	-3.67984	0.000294	0.001317	0.000305	0.001353
MRPL4	-0.28029	-1.78376	0.075854	0.141082	0.076148	0.141349
MRPL40	0.192661	1.101056	0.272086	0.382876	0.271629	0.382117
MRPL42	-0.02201	-0.13676	0.89135	0.922764	0.891414	0.92283
MRPL43	-0.27982	-1.42254	0.156299	0.24978	0.155175	0.248323
MRPL54	-0.12246	-0.86591	0.387493	0.503827	0.389144	0.505382
MRPS10	0.336688	1.631942	0.104135	0.180826	0.102986	0.178875
MRPS11	-0.20593	-1.55396	0.121644	0.204375	0.123585	0.20715
MRPS12	0.468637	3.312017	0.001084	0.00395	0.001125	0.004072
MRPS16	0.585469	3.371801	0.000883	0.003335	0.000873	0.00329
MRPS18B	-0.17855	-1.063	0.288957	0.401448	0.288841	0.40105
MRPS23	0.337772	2.008935	0.045777	0.092261	0.045708	0.092122
MRPS30	0.242509	1.000949	0.317961	0.432026	0.315555	0.429035
MRPS31	0.479985	2.792582	0.005694	0.016024	0.005656	0.015948
MRPS35	-0.19684	-0.69296	0.489073	0.600953	0.486389	0.598436
MRPS36	-0.28635	-1.85167	0.065426	0.124951	0.065785	0.125229
MRPS5	0.268681	2.392304	0.017592	0.041569	0.018826	0.04402
MRPS6	0.525483	2.735142	0.006749	0.018531	0.006613	0.018261
MRRF	-0.21564	-1.08697	0.278252	0.389454	0.276899	0.387907
MRV11	-0.19617	-0.37721	0.706385	0.787478	0.704017	0.78577
MS4A1	-1.14322	-2.9689	0.003323	0.010219	0.003089	0.00962
MS4A2	1.16161	3.763192	0.000216	0.001011	0.000195	0.000928
MS4A4A	0.979612	4.000663	8.65E-05	0.00047	7.95E-05	0.000435

MS4A6A	0.087779	0.452252	0.651537	0.743879	0.65072	0.743525
MS4A8B	-0.65533	-1.67131	0.096095	0.170239	0.09355	0.166673
MSC	0.198139	1.136344	0.25706	0.366005	0.256633	0.365508
MSH2	0.336261	1.410874	0.159707	0.253993	0.157694	0.251519
MSH3	0.419595	2.572728	0.010754	0.027499	0.010769	0.027538
MSI2	0.013239	0.06161	0.95093	0.967187	0.950745	0.967208
MSLN	-1.12047	-1.83241	0.068255	0.129354	0.065878	0.125356
MSMB	-2.19474	-3.57438	0.000432	0.00183	0.000385	0.001649
MSRA	1.115689	4.028622	7.75E-05	0.000427	7.00E-05	0.000388
MSRB2	1.429531	5.620815	5.78E-08	7.56E-07	4.86E-08	6.42E-07
MST1R	0.423742	1.772758	0.077665	0.143542	0.076226	0.141438
MSX1	1.679467	8.074003	4.57E-14	3.41E-12	3.60E-14	2.97E-12
MT1E	-0.57831	-1.24752	0.213545	0.318825	0.209807	0.314744
MT3	-0.57609	-3.99788	8.75E-05	0.000474	9.13E-05	0.00049
MTA1	-0.45844	-2.67023	0.008151	0.021693	0.008104	0.021614
MTAP	0.027826	0.124088	0.90136	0.931075	0.900944	0.930646
MTCH2	0.228363	1.289147	0.198713	0.302347	0.198189	0.30204
MTCP1	-0.39432	-2.5443	0.011642	0.029307	0.011743	0.029558
MTERF	-0.61368	-2.09263	0.037539	0.07793	0.036332	0.075759
MTF1	0.603322	4.152287	4.72E-05	0.000281	4.92E-05	0.000289
MTHFD1	0.163353	0.965519	0.335355	0.450462	0.335178	0.450301
MTHFD2	-0.03008	-0.16562	0.868606	0.904754	0.868406	0.904472
MTHFR	0.162938	1.330643	0.184697	0.285833	0.188073	0.289912
MTIF2	0.579999	3.637298	0.000344	0.001504	0.000346	0.001508
MTL5	0.439182	3.01748	0.002852	0.008996	0.002924	0.009201
MTM1	0.700873	3.728187	0.000246	0.001133	0.000238	0.001103
MTMR2	0.286704	1.634406	0.103617	0.18017	0.103263	0.179224
MTMR4	0.450189	2.759605	0.006279	0.017461	0.006288	0.017498
MTO1	0.197871	1.307106	0.192554	0.295656	0.193371	0.296514
MTR	0.297665	2.052238	0.041341	0.084443	0.041904	0.085481
MTRF1	0.664234	2.713148	0.007197	0.019519	0.006905	0.018946
MTX2	0.441499	3.127536	0.002003	0.006687	0.002072	0.006886
MTX3	0.63541	4.090251	6.06E-05	0.000345	6.16E-05	0.000348
MUC13	1.010729	2.579458	0.010553	0.027103	0.009967	0.025781
MUC2	-2.34818	-3.70538	0.000268	0.001215	0.000236	0.001098
MUC4	0.451501	0.748291	0.455091	0.569773	0.451172	0.565775
MUM1	0.228335	1.680703	0.094253	0.167862	0.095733	0.169598
MUS81	-0.00527	-0.05692	0.954662	0.969933	0.955568	0.970225
MUSK	-0.12387	-1.25332	0.211432	0.316825	0.219034	0.325264
MUT	0.610811	3.037072	0.00268	0.008546	0.002599	0.008315
MUTYH	0.072682	0.419802	0.675044	0.761944	0.674812	0.76131

MVD	-0.35429	-2.43574	0.015665	0.037736	0.015941	0.038305
MVK	0.641715	5.374003	1.97E-07	2.26E-06	2.43E-07	2.71E-06
MVP	0.207569	1.393529	0.164879	0.260394	0.165807	0.261971
MX1	-0.27984	-1.20039	0.231289	0.338016	0.229134	0.336121
MX2	0.787731	3.044004	0.002622	0.008386	0.00248	0.008009
MXD4	0.319141	1.853908	0.065103	0.124435	0.06491	0.123964
MYB	-0.70301	-2.83714	0.004981	0.014419	0.004758	0.013855
MYBPH	1.158781	12.07228	4.94E-26	7.73E-23	1.93E-25	2.27E-22
MYCBP2	0.472019	3.457928	0.000654	0.002616	0.000689	0.002742
MYCL1	0.71046	3.961133	0.000101	0.000535	9.85E-05	0.000524
MYD88	0.539649	3.563733	0.000449	0.001893	0.000458	0.001929
MYEOV	0.179108	0.732779	0.46448	0.579522	0.462225	0.577167
MYH10	0.338249	1.194443	0.233603	0.340867	0.230728	0.337616
MYH11	0.422759	1.309193	0.191847	0.294821	0.188788	0.290744
MYH9	-0.00369	-0.02588	0.979374	0.986722	0.979441	0.98679
MYL6	0.050501	0.500824	0.617	0.713734	0.622478	0.719008
MYL9	-0.52332	-2.20147	0.028752	0.062533	0.027986	0.061065
MYLIP	0.182464	0.860824	0.390281	0.506299	0.388564	0.504768
MYLK	0.148509	0.400429	0.689233	0.774234	0.687018	0.772236
MYO10	0.778744	2.456466	0.014813	0.036091	0.014142	0.034647
MYO1C	0.890145	6.114342	4.43E-09	7.51E-08	4.73E-09	7.97E-08
MYO1D	-0.45063	-2.34279	0.020041	0.046423	0.019736	0.045876
MYO1E	0.14485	0.71263	0.476837	0.589772	0.475462	0.588847
MYO1F	0.958648	7.01712	2.82E-11	9.28E-10	3.25E-11	1.06E-09
MYO5A	1.196234	8.300948	1.08E-14	9.97E-13	1.18E-14	1.16E-12
MYO6	1.086654	4.092514	6.01E-05	0.000343	5.44E-05	0.000313
MYO7A	0.507354	3.971573	9.70E-05	0.00052	0.000106	0.000561
MYO7B	-0.20814	-1.79855	0.073474	0.137307	0.076267	0.141459
MYO9A	1.547325	7.598548	8.75E-13	4.20E-11	7.17E-13	3.58E-11
MYO9B	-0.54245	-4.36252	1.98E-05	0.000132	2.25E-05	0.000146
MYOC	-0.52991	-1.14615	0.252989	0.361729	0.249114	0.358072
MYOM2	-0.59935	-2.63327	0.009062	0.023835	0.008759	0.023114
MYST1	0.617285	5.142751	6.02E-07	6.08E-06	7.29E-07	7.30E-06
MYST3	0.275703	1.590348	0.113205	0.193079	0.112909	0.192621
N4BP1	0.838823	7.033396	2.57E-11	8.50E-10	3.51E-11	1.13E-09
NAALAD2	-0.13174	-1.77327	0.07758	0.143498	0.088511	0.15896
NAB1	-0.18275	-0.93155	0.3526	0.467875	0.351317	0.466834
NADSYN1	0.130784	0.899394	0.369435	0.485555	0.37077	0.486901
NAGLU	0.382583	3.139776	0.001925	0.006471	0.002082	0.00691
NAGPA	0.59094	3.202273	0.001567	0.005436	0.001534	0.00533
NANS	0.21323	1.937737	0.053947	0.106221	0.056764	0.111024

NAPIL4	0.717162	4.854808	2.30E-06	1.94E-05	2.40E-06	2.03E-05
NAPG	-0.10198	-0.51367	0.608	0.706976	0.60699	0.705802
NAPSB	-0.23818	-0.9002	0.369005	0.485261	0.366283	0.482492
NARF	-0.32605	-2.02953	0.043619	0.088397	0.043732	0.08871
NARS	0.496959	2.973373	0.003277	0.010125	0.003267	0.010088
NASP	0.253321	1.643195	0.101784	0.177484	0.102269	0.178156
NAT2	-0.25682	-0.601	0.548466	0.656579	0.545273	0.653938
NAT8	-1.1056	-3.28856	0.001174	0.004212	0.001082	0.003932
NBEA	-0.76051	-2.78192	0.005877	0.016492	0.005588	0.015793
NBL1	-0.1656	-0.7855	0.433014	0.549006	0.431376	0.547373
NCAM1	0.213025	1.531081	0.127199	0.212149	0.128669	0.213841
NCAM2	-0.17652	-1.94273	0.053337	0.105284	0.058495	0.11356
NCBP1	-0.13846	-1.15485	0.249415	0.358548	0.253399	0.362219
NCBP2	0.606739	3.290405	0.001167	0.004195	0.001141	0.00412
NCF2	-0.00998	-0.04921	0.960799	0.974063	0.960678	0.973861
NCF4	0.252463	1.30046	0.194817	0.298448	0.193686	0.296813
NCK1	0.401084	2.291011	0.022918	0.051886	0.022777	0.051715
NCKIPSD	0.85249	9.877569	2.98E-19	6.66E-17	1.37E-18	2.79E-16
NCL	0.151326	1.759287	0.079932	0.146463	0.087504	0.157575
NCOA1	1.329654	8.735448	6.49E-16	7.82E-14	6.60E-16	7.75E-14
NCOA2	0.415867	2.197416	0.029044	0.063022	0.028687	0.062392
NCOA3	0.202528	1.189735	0.235445	0.343278	0.235217	0.343172
NCOA4	0.591429	3.963944	9.99E-05	0.000531	0.000103	0.000545
NCOA5	0.202966	1.468546	0.143397	0.232563	0.145016	0.234864
NCOA6	0.250815	2.086423	0.038103	0.078788	0.039704	0.081809
NDN	0.115807	0.501878	0.61626	0.713228	0.614665	0.711909
NDP	0.454735	1.320415	0.188081	0.289925	0.184908	0.285878
NDRG1	0.144812	0.557123	0.578015	0.682416	0.575903	0.680258
NDST2	0.791041	6.862255	6.93E-11	2.02E-09	9.85E-11	2.86E-09
NDUFA1	-0.07979	-0.59955	0.549431	0.65708	0.551477	0.658689
NDUFA10	0.130275	0.861688	0.389806	0.505822	0.390701	0.506704
NDUFA11	-0.23422	-1.59121	0.113011	0.193079	0.113897	0.194166
NDUFA3	0.05465	0.33082	0.741098	0.814394	0.74112	0.814558
NDUFA4	0.827508	6.163132	3.41E-09	6.04E-08	3.91E-09	6.85E-08
NDUFA5	-0.01826	-0.16602	0.868292	0.904671	0.869815	0.905054
NDUFA7	0.501731	3.615798	0.000372	0.001604	0.000391	0.001672
NDUFA9	-1.06008	-6.58587	3.33E-10	8.04E-09	3.30E-10	8.08E-09
NDUFAB1	0.25133	1.824879	0.069388	0.131184	0.070534	0.132976
NDUFB11	0.321297	2.00257	0.046462	0.093322	0.046586	0.093557
NDUFB2	-0.54023	-3.39769	0.000808	0.003099	0.000813	0.003126
NDUFB5	0.79527	5.071647	8.42E-07	8.33E-06	8.54E-07	8.49E-06

NDUFB7	-0.11513	-1.21275	0.226536	0.333142	0.235256	0.343172
NDUFB8	-0.10032	-0.72168	0.471267	0.585812	0.473009	0.587045
NDUFC1	0.27595	1.76906	0.078282	0.144454	0.078627	0.144694
NDUFC2	0.732456	5.453473	1.33E-07	1.57E-06	1.50E-07	1.75E-06
NDUFS1	0.565509	2.06618	0.039993	0.082118	0.038821	0.080097
NDUFS2	-0.15284	-0.92437	0.356316	0.471743	0.356343	0.471512
NDUFS3	0.034364	0.199301	0.842213	0.885549	0.842107	0.885293
NDUFS4	-0.38685	-2.76131	0.006248	0.017386	0.006433	0.017805
NDUFS8	-0.11035	-0.46316	0.643714	0.738276	0.642115	0.736622
NDUFV1	0.149946	1.218633	0.224301	0.331514	0.227789	0.335103
NDUFV2	-0.09668	-0.50501	0.614059	0.711558	0.613237	0.71078
NDUFV3	0.240298	0.996459	0.320132	0.434359	0.317746	0.431164
NEBL	0.006139	0.026637	0.978774	0.986328	0.978678	0.986232
NECAP1	0.08155	0.478455	0.632806	0.728611	0.632641	0.728243
NEDD1	0.940381	6.716159	1.60E-10	4.24E-09	1.78E-10	4.73E-09
NEDD4	0.090324	0.401582	0.688385	0.773651	0.687126	0.772236
NEDD8	0.27888	2.546358	0.011575	0.029187	0.012572	0.031381
NEDD9	0.463733	2.091838	0.037611	0.077941	0.036822	0.076713
NEFH	0.038103	0.196975	0.84403	0.886864	0.843651	0.886567
NEFL	0.086787	0.244614	0.806986	0.861587	0.805596	0.860327
NEK2	0.563565	2.684943	0.007812	0.020969	0.007593	0.020497
NEK3	0.51407	1.893882	0.059565	0.115445	0.058076	0.112978
NEK4	0.864238	6.2888	1.73E-09	3.34E-08	1.94E-09	3.76E-08
NEK7	0.640928	4.356511	2.03E-05	0.000134	2.12E-05	0.000139
NELL1	0.411015	3.216525	0.001495	0.005208	0.001596	0.005487
NEO1	0.146409	0.557115	0.578021	0.682416	0.575877	0.680258
NET1	-0.25839	-1.08168	0.280589	0.391835	0.278258	0.389346
NETO2	0.240873	0.512473	0.608839	0.707253	0.605889	0.705349
NEU1	0.871612	1.957446	0.051571	0.102229	0.049704	0.098987
NEXN	0.837509	3.184012	0.001665	0.005728	0.001565	0.005401
NF1	0.866611	5.694679	3.97E-08	5.35E-07	4.10E-08	5.52E-07
NF2	0.166337	1.572622	0.117257	0.19874	0.122179	0.205087
NFASC	0.066604	0.492314	0.622993	0.719427	0.624615	0.720238
NFAT5	0.915912	4.015856	8.15E-05	0.000446	7.56E-05	0.000417
NFATC1	0.016417	0.103768	0.917449	0.943135	0.917526	0.943082
NFATC2	1.135758	5.941602	1.11E-08	1.69E-07	1.01E-08	1.58E-07
NFATC3	0.11107	0.812742	0.417252	0.533046	0.419292	0.534638
NFATC4	0.816192	5.959831	1.00E-08	1.55E-07	1.13E-08	1.74E-07
NFE2	-0.04046	-0.16543	0.868757	0.904754	0.868099	0.904472
NFE2L2	0.536895	2.86569	0.004568	0.01343	0.004482	0.013175
NFE2L3	1.288688	4.21298	3.69E-05	0.000227	3.27E-05	0.000203

NFIC	2.006697	9.612119	1.84E-18	3.32E-16	1.31E-18	2.79E-16
NFIL3	0.936925	4.033986	7.59E-05	0.000419	7.01E-05	0.000389
NFIX	0.615567	4.188564	4.08E-05	0.000247	4.23E-05	0.000256
NFKB1	0.258103	1.832791	0.068198	0.129329	0.06917	0.130878
NFKB2	-0.44701	-2.42143	0.016278	0.038973	0.016077	0.038572
NFKBIB	-0.09988	-0.7427	0.45846	0.57338	0.460628	0.575785
NFKBIE	-0.16468	-0.78355	0.434155	0.550008	0.432536	0.548545
NFKBIL1	-0.10379	-0.76358	0.445945	0.561162	0.448004	0.562699
NFRKB	0.458049	4.496329	1.12E-05	8.03E-05	1.49E-05	0.000103
NFS1	0.144815	0.936459	0.350073	0.465839	0.350744	0.466336
NFX1	-0.29683	-1.54024	0.124953	0.20907	0.124032	0.207561
NFYA	0.296078	1.853091	0.065221	0.124609	0.065398	0.124543
NFYB	0.265337	1.628041	0.104961	0.182035	0.105061	0.181807
NFYC	0.432408	2.707056	0.007326	0.019846	0.00736	0.019961
NGEF	-0.15682	-0.81549	0.415685	0.531769	0.414571	0.530482
NHLH1	0.45615	3.461186	0.000647	0.002594	0.000689	0.002742
NHLRC2	0.551719	4.954403	1.45E-06	1.32E-05	1.86E-06	1.63E-05
NHP2L1	-0.09395	-0.68784	0.492285	0.60411	0.494189	0.606288
NID2	1.049071	4.676142	5.12E-06	4.01E-05	4.65E-06	3.66E-05
NIN	-0.27878	-2.1917	0.02946	0.063743	0.0305	0.065456
NINJ1	0.180795	1.147997	0.252228	0.361424	0.252703	0.361333
NIPBL	0.237105	1.206074	0.229096	0.335702	0.22784	0.335103
NIPSNAP1	-0.07387	-0.3718	0.7104	0.791017	0.70962	0.790147
NISCH	0.051563	0.500553	0.617191	0.713779	0.622311	0.718992
NKG7	-0.83205	-3.75968	0.000219	0.001021	0.000205	0.000969
NKRF	1.461557	9.617602	1.77E-18	3.32E-16	1.78E-18	3.34E-16
NKTR	-0.73438	-4.20319	3.84E-05	0.000235	3.76E-05	0.00023
NKX2-5	1.610592	7.06093	2.18E-11	7.39E-10	1.75E-11	6.40E-10
NLGN3	0.610464	6.888174	5.97E-11	1.79E-09	1.40E-10	3.81E-09
NLK	0.704088	3.447113	0.00068	0.002703	0.000652	0.002618
NMB	0.256737	0.959751	0.338244	0.453565	0.335459	0.450363
NME1	0.457503	2.905843	0.00404	0.012088	0.004072	0.012181
NME5	-0.08122	-0.29529	0.76805	0.833487	0.766705	0.832994
NME6	1.761721	10.50389	3.79E-21	1.27E-18	3.21E-21	1.08E-18
NMI	-0.00639	-0.04155	0.966897	0.977924	0.966947	0.977975
NMNAT3	0.523518	3.545353	0.00048	0.002001	0.000493	0.002052
NMT1	0.631688	4.168048	4.43E-05	0.000266	4.54E-05	0.000271
NMU	1.51128	2.863026	0.004605	0.013512	0.00427	0.012666
NNAT	0.932554	3.890393	0.000133	0.00068	0.000123	0.000634
NNMT	0.969213	2.799626	0.005575	0.015776	0.005239	0.014987
NNT	0.691767	2.459098	0.014707	0.035891	0.014106	0.034589

NODAL	0.714495	8.105535	3.75E-14	2.98E-12	1.13E-13	7.48E-12
NOLC1	-0.0889	-0.43691	0.662606	0.752053	0.661616	0.751473
NOS1	0.253958	2.81372	0.005345	0.015225	0.006388	0.017704
NOS3	-0.19922	-0.72683	0.46811	0.583121	0.465467	0.580704
NOTCH1	-0.57048	-4.43283	1.47E-05	0.000101	1.64E-05	0.000111
NOTCH3	-0.13672	-1.21864	0.224297	0.331514	0.22935	0.336332
NOV	1.325422	4.078756	6.35E-05	0.000359	5.64E-05	0.000323
NOVA1	0.279473	1.655473	0.099267	0.174544	0.099144	0.174132
NPAT	1.711547	11.63363	1.19E-24	9.33E-22	1.20E-24	9.42E-22
NPC1	0.186472	0.757062	0.44983	0.564885	0.447512	0.56223
NPC2	0.353377	2.088218	0.037939	0.078518	0.037855	0.078586
NPDC1	-0.79359	-2.98967	0.003113	0.009697	0.002945	0.009234
NPEPL1	0.026759	0.175151	0.861123	0.89951	0.861354	0.899636
NPFF	-0.47928	-4.36251	1.98E-05	0.000132	2.44E-05	0.000157
NPHP1	0.493529	1.849647	0.065718	0.125304	0.064172	0.12294
NPIP	-0.06401	-0.39229	0.695225	0.778731	0.695318	0.77891
NPTX1	-0.45607	-1.43407	0.152984	0.245568	0.15019	0.241909
NPTX2	0.538594	1.268979	0.205802	0.31042	0.202206	0.306233
NPTXR	0.581118	4.109947	5.60E-05	0.000324	5.90E-05	0.000336
NPY	-1.70762	-3.3441	0.000972	0.003607	0.00088	0.00331
NQO1	0.442293	1.18545	0.23713	0.34505	0.233606	0.340978
NQO2	-0.28253	-0.71873	0.473078	0.587753	0.469662	0.584125
NR0B2	1.334853	4.104655	5.72E-05	0.00033	5.07E-05	0.000295
NR1D2	0.771098	2.513424	0.01268	0.031649	0.012097	0.030339
NR1H2	0.039846	0.297881	0.766077	0.8325	0.767209	0.833153
NR1I2	0.275182	0.922173	0.357458	0.472722	0.354345	0.469794
NR2C1	0.252795	1.477437	0.141002	0.229549	0.140767	0.229326
NR2C2	0.513599	3.864647	0.000147	0.000739	0.000158	0.000784
NR2F1	0.319125	1.178533	0.239869	0.348173	0.237121	0.345155
NR2F2	0.767378	3.059409	0.002496	0.008079	0.002365	0.007715
NR2F6	-0.72667	-4.6009	7.14E-06	5.34E-05	7.21E-06	5.42E-05
NR4A1	0.711743	3.626096	0.000358	0.001555	0.000345	0.001502
NR4A2	1.142691	2.96865	0.003325	0.010219	0.003091	0.009622
NR4A3	1.217408	3.619014	0.000368	0.001587	0.000333	0.001463
NR5A2	0.852717	2.840884	0.004925	0.014316	0.004649	0.013598
NR6A1	0.718331	9.695327	1.04E-18	2.04E-16	9.67E-18	1.75E-15
NRCAM	-0.35801	-0.99127	0.322654	0.436821	0.319074	0.43255
NRD1	0.398502	2.949668	0.003528	0.010747	0.003678	0.011119
NRF1	-0.22627	-2.77901	0.005928	0.016615	0.007451	0.020173
NRG1	0.387641	1.996114	0.047166	0.094492	0.046599	0.093557
NRGN	1.422588	6.864727	6.83E-11	2.01E-09	5.76E-11	1.77E-09

NRIP1	-0.35084	-1.4115	0.159524	0.253984	0.157359	0.251219
NRK	-0.08444	-0.26531	0.79102	0.849393	0.789623	0.848475
NRP1	0.155333	1.146091	0.253014	0.361729	0.255193	0.36423
NRP2	0.085489	0.549388	0.583301	0.686925	0.583781	0.687317
NRXN1	-0.19909	-1.78494	0.075661	0.140778	0.078927	0.145075
NRXN3	-0.51996	-1.65	0.100383	0.175898	0.09809	0.172992
NSD1	0.001083	0.007266	0.994209	0.996329	0.994222	0.996342
NSDHL	-0.0773	-0.42099	0.674177	0.761874	0.673653	0.760732
NSF	0.675207	2.328404	0.020807	0.047984	0.02001	0.046297
NSFL1C	0.235643	1.581407	0.115235	0.195878	0.116026	0.197194
NSMAF	0.553546	3.009704	0.002923	0.009196	0.00287	0.009065
NSMCE1	-0.54947	-3.38589	0.000841	0.003215	0.000843	0.003202
NSUN2	-0.46147	-2.44412	0.015315	0.037084	0.01509	0.036652
NSUN4	0.574192	4.438958	1.44E-05	9.89E-05	1.59E-05	0.000109
NT5C	0.071933	0.657589	0.511496	0.623535	0.516527	0.628444
NT5C2	-0.04625	-0.23588	0.81375	0.866235	0.813266	0.865961
NT5E	1.264573	3.565244	0.000447	0.001885	0.000405	0.001719
NTHL1	-0.53552	-2.47972	0.013906	0.034201	0.013538	0.033435
NUBP1	0.06081	0.355057	0.72289	0.800751	0.72274	0.80137
NUBP2	-0.4411	-3.09497	0.002226	0.007332	0.002296	0.007516
NUCB1	-0.26108	-1.68167	0.094065	0.16759	0.09448	0.167885
NUCB2	0.617729	2.393345	0.017543	0.041517	0.016926	0.04028
NUDT1	-0.05422	-0.2871	0.774307	0.838342	0.77384	0.837684
NUDT4	-0.04952	-0.19227	0.847711	0.889141	0.846886	0.88907
NUDT5	-0.26962	-1.29015	0.198366	0.302016	0.196812	0.300427
NUMA1	-0.24642	-1.14599	0.253056	0.361729	0.251258	0.360127
NUMB	0.338575	2.410081	0.016779	0.039963	0.017165	0.040614
NUP107	0.294336	1.110852	0.267856	0.378168	0.265132	0.375432
NUP153	1.308013	8.784291	4.71E-16	5.98E-14	4.93E-16	6.09E-14
NUP155	0.094861	0.422773	0.672878	0.760771	0.671571	0.759477
NUP210	-0.68779	-2.97412	0.003269	0.010108	0.003128	0.009717
NUP35	0.299421	1.743421	0.08267	0.150019	0.082463	0.149992
NUP50	0.344391	1.56122	0.119922	0.201875	0.118415	0.199911
NUP54	-0.05077	-0.55637	0.578526	0.682829	0.58645	0.689769
NUP62	0.58493	3.413129	0.000766	0.00297	0.000758	0.00295
NUP88	0.322086	2.088309	0.037931	0.078518	0.038194	0.07908
NUP98	-0.12018	-0.58231	0.560957	0.667637	0.559662	0.666011
NUPL2	0.484928	2.987678	0.003133	0.009739	0.00314	0.009748
NUTF2	-0.07317	-0.52132	0.602671	0.701996	0.604007	0.703621
NVL	-0.05059	-0.38151	0.703193	0.785597	0.704672	0.786129
NXT2	0.932584	3.76891	0.000211	0.000993	0.000195	0.000928

OAS1	0.05935	0.178503	0.858494	0.897447	0.857506	0.897157
OAS2	0.963933	3.847074	0.000157	0.000779	0.000145	0.000728
OAT	1.169158	4.355673	2.04E-05	0.000134	1.82E-05	0.000122
OAZ1	0.053087	0.554281	0.579955	0.68384	0.586839	0.689881
OBFC1	1.020997	7.290728	5.62E-12	2.28E-10	6.32E-12	2.56E-10
OCIAD1	0.43464	2.387996	0.017794	0.041962	0.017604	0.041495
OCLN	0.840499	2.882329	0.004342	0.012873	0.004099	0.012248
OCRL	0.316996	2.196877	0.029083	0.063078	0.029547	0.063966
ODC1	-0.05831	-0.20283	0.83946	0.883642	0.838469	0.882796
ODF2	-0.10869	-0.66303	0.508011	0.620492	0.508108	0.620449
ODF3L1	1.007264	5.388543	1.84E-07	2.12E-06	1.72E-07	1.99E-06
ODZ3	0.059549	0.44704	0.65529	0.747134	0.656934	0.747949
OFD1	0.129927	0.725533	0.468903	0.583955	0.468316	0.583378
OGFR	0.248839	2.700058	0.007477	0.020196	0.008744	0.023088
OLFM1	0.601939	2.266651	0.024393	0.054619	0.023583	0.053238
OLFML2A	0.968095	4.201935	3.86E-05	0.000236	3.55E-05	0.000219
OLR1	0.210746	0.437872	0.661913	0.751628	0.659283	0.749185
OPA1	0.973916	5.597242	6.51E-08	8.38E-07	6.24E-08	8.01E-07
OPCML	0.520699	3.641883	0.000338	0.001484	0.000352	0.001525
OPHN1	0.430192	1.417876	0.157655	0.25152	0.154932	0.248018
OPTN	0.467866	2.540134	0.011777	0.029632	0.011621	0.029334
ORMDL1	0.182472	0.625423	0.532348	0.641877	0.529746	0.639038
OSBP	0.487326	3.630936	0.000352	0.001532	0.000374	0.001609
OSBPL10	0.642636	4.939293	1.56E-06	1.40E-05	1.76E-06	1.56E-05
OSBPL11	1.181063	5.688099	4.11E-08	5.51E-07	3.65E-08	4.99E-07
OSBPL2	-0.04138	-0.26171	0.79379	0.851395	0.793982	0.851451
OSBPL6	1.101383	5.2573	3.48E-07	3.71E-06	3.14E-07	3.38E-06
OSBPL8	0.062928	0.347533	0.728526	0.805096	0.728137	0.804388
OSBPL9	0.705008	4.412755	1.60E-05	0.000109	1.61E-05	0.00011
OSGEP	-0.04117	-0.4432	0.658064	0.748162	0.664412	0.754102
OSMR	1.65463	4.376295	1.87E-05	0.000125	1.61E-05	0.00011
OSTF1	0.298162	1.803109	0.072752	0.136283	0.072753	0.136176
OSTM1	1.177707	6.948537	4.21E-11	1.32E-09	3.98E-11	1.26E-09
OTC	0.142909	0.298164	0.765862	0.832459	0.763978	0.830988
OTOF	0.021668	0.299584	0.76478	0.831766	0.773349	0.837498
OTUB1	0.06784	0.426398	0.670239	0.759194	0.670493	0.75917
OVGP1	-0.15882	-0.9778	0.329258	0.444049	0.329448	0.444433
OVOL1	0.532166	2.676663	0.008001	0.021391	0.007819	0.020963
OXA1L	0.097781	0.658785	0.510729	0.623002	0.511707	0.624033
OXSRI	0.401801	2.666454	0.00824	0.021881	0.008357	0.022165
OXTR	0.149628	0.348897	0.727503	0.804344	0.72541	0.80256

P2RX1	0.632372	2.931833	0.003729	0.011249	0.003596	0.010918
P2RX4	-0.3003	-1.39874	0.163313	0.258354	0.161724	0.256186
P2RY10	-0.42007	-3.17879	0.001694	0.005794	0.001787	0.006064
P2RY2	0.185789	0.895671	0.371417	0.487887	0.369805	0.485999
P2RY6	1.420919	7.693376	4.90E-13	2.61E-11	4.26E-13	2.30E-11
P4HA1	-0.41348	-3.42106	0.000745	0.002912	0.000818	0.003136
P4HA2	-0.09768	-0.6733	0.50147	0.613938	0.502691	0.615434
PA2G4	0.098096	0.611407	0.541568	0.650535	0.541829	0.650321
PABPC1	0.15323	1.503526	0.134151	0.220998	0.140053	0.228623
PABPC4	0.228653	1.233934	0.218556	0.324707	0.217696	0.323743
PABPN1	0.017331	0.097791	0.922188	0.946118	0.9221	0.946052
PACRG	-0.27963	-1.627	0.105181	0.182215	0.104945	0.18174
PAEP	-0.07335	-0.21108	0.833025	0.879824	0.831831	0.879037
PAFAH1B1	-0.02582	-0.20575	0.837177	0.881964	0.838285	0.882796
PAFAH1B2	-0.41433	-2.39702	0.017373	0.041175	0.017279	0.04081
PAFAH1B3	-0.2796	-1.33542	0.183132	0.283738	0.181605	0.281697
PAFAH2	0.354625	2.180458	0.030294	0.065103	0.030341	0.065204
PAIP1	0.540092	2.421792	0.016262	0.038956	0.015814	0.038076
PAK1	0.872642	3.723841	0.00025	0.001149	0.000233	0.001085
PAK1IP1	0.552866	3.433023	0.000714	0.00283	0.000717	0.00282
PAK2	0.352403	1.751919	0.081194	0.148141	0.080278	0.146697
PAK4	0.347679	2.023054	0.044289	0.089645	0.044139	0.08942
PALM	0.776823	3.999977	8.68E-05	0.000471	8.30E-05	0.000452
PANK3	0.407842	2.345744	0.019887	0.046157	0.019772	0.045937
PANX1	1.206821	6.121397	4.26E-09	7.26E-08	3.80E-09	6.72E-08
PAPOLA	0.731177	3.741251	0.000234	0.001087	0.000225	0.001048
PAPPA	0.018408	0.098354	0.921742	0.946099	0.921586	0.945939
PAPSS1	-0.12216	-0.63436	0.526509	0.636796	0.525514	0.636075
PAPSS2	0.419575	1.119143	0.264311	0.374288	0.260712	0.370307
PARD3	0.439566	2.211856	0.028015	0.06127	0.027564	0.060452
PARD6A	-0.31465	-2.24839	0.025552	0.056728	0.026089	0.057681
PARN	0.282368	1.616234	0.10749	0.185222	0.107154	0.18477
PARP10	-0.08152	-1.04561	0.296901	0.40994	0.312249	0.425752
PARP16	0.421737	2.735065	0.00675	0.018531	0.006822	0.018739
PARP2	-0.13799	-0.99323	0.321701	0.43611	0.323604	0.437832
PARP4	0.06767	0.417439	0.676768	0.76315	0.676904	0.763487
PARVB	0.20992	0.794756	0.42762	0.54334	0.424999	0.540887
PARVG	-0.07479	-0.53194	0.595306	0.696004	0.596645	0.697224
PASK	-0.06219	-0.26015	0.794996	0.852299	0.794023	0.851451
PAX5	-0.50762	-2.26191	0.024689	0.055178	0.024077	0.054052
PAX6	0.351012	0.881535	0.378999	0.495769	0.375302	0.491479

PAX8	0.406072	4.541845	9.23E-06	6.71E-05	1.41E-05	9.83E-05
PBX1	1.162087	4.6028	7.08E-06	5.30E-05	6.30E-06	4.83E-05
PBX3	0.53877	4.203854	3.83E-05	0.000235	4.24E-05	0.000256
PCBP1	-0.25254	-2.1179	0.035316	0.073804	0.036891	0.076823
PCBP2	-0.40915	-2.47428	0.014114	0.034603	0.014108	0.034589
PCCB	0.239452	1.598463	0.111388	0.190858	0.112123	0.191628
PCDH1	0.372726	3.1446	0.001895	0.006389	0.00207	0.006885
PCDH9	0.787278	2.736185	0.006728	0.018518	0.006389	0.017704
PCDHGC3	-0.03489	-0.3614	0.718152	0.797758	0.722938	0.80137
PCGF2	0.407402	2.37283	0.018522	0.043374	0.018437	0.043198
PCK2	-0.81323	-3.24956	0.001339	0.004742	0.001261	0.0045
PCM1	0.390292	2.389806	0.017709	0.041782	0.01773	0.041748
PCMT1	0.415127	2.412934	0.016652	0.039768	0.01657	0.039511
PCNA	-0.38284	-2.0364	0.042919	0.087212	0.042479	0.086392
PCNP	0.087557	0.623176	0.53382	0.643322	0.535315	0.644462
PCNX	0.64963	3.841921	0.00016	0.000789	0.000159	0.000787
PCNXL2	0.43335	3.560144	0.000455	0.001911	0.000502	0.002079
PCOLCE	0.183482	1.004502	0.316251	0.430335	0.315457	0.429035
PCP4	-0.37801	-0.77883	0.436925	0.553069	0.43312	0.548696
PCSK7	-0.59035	-3.84825	0.000156	0.000777	0.000159	0.000789
PCYOX1	0.860011	4.412611	1.61E-05	0.000109	1.52E-05	0.000105
PDCD10	0.087533	0.489874	0.624716	0.720885	0.624272	0.72002
PDCD2	0.380887	2.301425	0.022312	0.050808	0.022305	0.050865
PDCD4	0.109879	0.409269	0.682744	0.768966	0.681005	0.767192
PDCD5	-0.58636	-2.60083	0.009936	0.025745	0.009617	0.025042
PDCD6	-0.03684	-0.21186	0.832416	0.879379	0.832279	0.879037
PDCL	0.730634	6.218911	2.52E-09	4.74E-08	3.34E-09	6.04E-08
PDE10A	0.282683	1.569482	0.117986	0.199632	0.117454	0.198574
PDE1A	0.402398	1.788187	0.075135	0.13991	0.073888	0.13812
PDE1B	1.003988	6.512124	5.04E-10	1.14E-08	5.15E-10	1.18E-08
PDE2A	0.444666	2.121826	0.034981	0.073235	0.034341	0.072215
PDE4A	0.574804	5.018473	1.08E-06	1.03E-05	1.35E-06	1.25E-05
PDE4B	0.091727	0.357829	0.720817	0.799396	0.71936	0.798346
PDE4C	0.252844	1.730967	0.084873	0.153188	0.085692	0.154964
PDE4D	0.441445	2.437552	0.015588	0.037596	0.015424	0.037252
PDE4DIP	0.28302	1.586812	0.114005	0.194209	0.113537	0.193623
PDE5A	0.473266	3.218415	0.001485	0.005183	0.001523	0.005302
PDE6D	-0.06153	-0.46899	0.639548	0.734491	0.641403	0.736164
PDE6G	0.339408	3.319407	0.001057	0.003864	0.001247	0.004456
PDE7A	-0.38312	-1.95527	0.051829	0.102611	0.051201	0.101667
PDE8A	0.222369	1.491561	0.13726	0.225331	0.138113	0.22602

PDE8B	0.242831	0.86245	0.389388	0.505699	0.386487	0.503182
PDE9A	0.222564	1.249642	0.21277	0.31787	0.212198	0.31752
PDGFD	1.312783	4.16535	4.48E-05	0.000268	3.97E-05	0.000242
PDGFRA	0.15541	1.299569	0.195121	0.298759	0.19892	0.302859
PDGFRL	0.244269	0.705215	0.481429	0.594357	0.478257	0.591405
PDHA1	1.120417	5.480319	1.17E-07	1.39E-06	1.05E-07	1.28E-06
PDK1	-0.85259	-3.23924	0.001386	0.004886	0.0013	0.004626
PDK2	0.557563	3.944414	0.000108	0.000565	0.000113	0.00059
PDK3	0.832824	2.888303	0.004264	0.012675	0.004027	0.012069
PDK4	1.452586	2.971491	0.003296	0.010178	0.003044	0.0095
PDLIM3	-0.02058	-0.07072	0.943687	0.962111	0.943331	0.961956
PDPK1	1.308623	8.201225	2.04E-14	1.68E-12	1.99E-14	1.73E-12
PD XK	-0.00051	-0.00312	0.997513	0.998969	0.997514	0.998956
PEA15	-0.04343	-0.30981	0.757	0.826458	0.757875	0.827029
PEBP4	-0.66424	-3.19302	0.001616	0.005589	0.001555	0.005379
PECAM1	0.965533	5.93156	1.17E-08	1.76E-07	1.15E-08	1.76E-07
PEG10	0.369108	0.755854	0.450553	0.565598	0.446788	0.561621
PELO	-0.28129	-1.03905	0.29993	0.412909	0.297104	0.409619
PELP1	0.493779	3.367392	0.000897	0.003364	0.000922	0.003434
PENK	-1.27634	-2.63573	0.008999	0.023694	0.008442	0.022379
PEPD	0.728276	3.368396	0.000894	0.003358	0.000852	0.003231
PER1	-0.05782	-0.22727	0.820424	0.871213	0.819473	0.8704
PER2	-0.19204	-0.83036	0.407242	0.523534	0.405112	0.52108
PES1	0.114658	1.147578	0.252401	0.361435	0.260028	0.369559
PET112L	0.350781	2.227922	0.026907	0.059234	0.027048	0.059544
PEX1	0.28456	0.825844	0.409796	0.52624	0.40642	0.522191
PEX11A	1.002252	4.348479	2.10E-05	0.000138	1.92E-05	0.000128
PEX11B	-0.26429	-1.59297	0.112616	0.192611	0.1126	0.192212
PEX13	0.589311	2.619366	0.009428	0.024604	0.009123	0.023901
PEX14	0.417807	2.856545	0.004697	0.013703	0.0048	0.013942
PEX19	0.308008	1.761838	0.079498	0.145783	0.079205	0.145423
PEX5	-0.68792	-4.78521	3.15E-06	2.56E-05	3.33E-06	2.71E-05
PEX6	-0.28566	-0.7218	0.47119	0.585812	0.467756	0.583144
PEX7	0.238743	1.182141	0.238438	0.346416	0.237007	0.345155
PFAS	1.25639	6.845868	7.61E-11	2.19E-09	6.86E-11	2.08E-09
PFDN5	0.56456	4.888917	1.97E-06	1.70E-05	2.42E-06	2.04E-05
PFKFB2	0.564297	2.995756	0.003054	0.009532	0.00299	0.009361
PFKFB3	0.395145	1.569443	0.117995	0.199632	0.116051	0.197194
PFKM	-0.21378	-0.93611	0.35025	0.465943	0.348121	0.46403
PFKP	0.002605	0.017258	0.986247	0.991521	0.986273	0.991547
PFN1	-0.31578	-2.4394	0.015511	0.037443	0.016114	0.038621

PGC	-0.51131	-0.80783	0.420068	0.536123	0.415999	0.531881
PGD	-0.48878	-1.80817	0.071957	0.135118	0.070303	0.132593
PGF	0.38958	2.354069	0.019458	0.045341	0.019451	0.045324
PGGT1B	0.499513	2.070028	0.039628	0.081511	0.038654	0.079834
PGK1	0.379219	2.18181	0.030193	0.064915	0.030043	0.064652
PGLS	0.150455	1.060778	0.289965	0.40261	0.291603	0.404287
PGM2	0.677767	3.687109	0.000286	0.001288	0.000279	0.001253
PGM3	0.251461	1.322257	0.187468	0.289075	0.186477	0.288113
PGRMC2	0.370566	2.381729	0.018091	0.042579	0.018224	0.042785
PGS1	0.077617	0.639085	0.523438	0.633929	0.526752	0.636439
PHACTR1	-0.18187	-1.2213	0.223292	0.330439	0.224317	0.331226
PHACTR2	0.286045	1.447355	0.149234	0.2407	0.148105	0.239125
PHC1	0.389506	2.955054	0.00347	0.010582	0.00364	0.011024
PHC2	0.587462	5.995189	8.34E-09	1.31E-07	1.39E-08	2.07E-07
PHF1	0.342614	3.057494	0.002511	0.008117	0.002788	0.008842
PHF10	0.216114	1.470125	0.14297	0.23203	0.143969	0.233651
PHF14	0.80241	5.063088	8.77E-07	8.64E-06	8.85E-07	8.72E-06
PHF17	0.842471	3.854804	0.000152	0.000761	0.000143	0.000721
PHF19	-0.31702	-1.47652	0.141248	0.22987	0.139746	0.228216
PHF20	0.616462	2.876701	0.004418	0.013067	0.004268	0.012666
PHF20L1	-0.26813	-1.31916	0.1885	0.29038	0.187117	0.288817
PHF3	0.342336	2.725829	0.006935	0.018951	0.007317	0.019855
PHF8	0.050692	0.399472	0.689937	0.774749	0.691862	0.775889
PHIP	1.172503	6.186788	3.00E-09	5.55E-08	2.72E-09	5.07E-08
PHKA1	1.235997	5.023658	1.05E-06	1.01E-05	9.24E-07	9.03E-06
PHKA2	1.3585	7.608366	8.24E-13	3.99E-11	7.37E-13	3.61E-11
PHKB	0.671655	4.14647	4.84E-05	0.000286	4.85E-05	0.000285
PHKG2	-0.40499	-3.33893	0.000989	0.003652	0.001081	0.003932
PHLDA2	-0.11803	-0.92455	0.356222	0.471743	0.359278	0.474594
PHLDA3	-0.31529	-1.41662	0.15802	0.251932	0.15629	0.249766
PHPT1	-0.74509	-4.60036	7.15E-06	5.34E-05	7.16E-06	5.38E-05
PHTF1	1.186502	6.425495	8.15E-10	1.76E-08	7.42E-10	1.62E-08
PHYH	0.675588	2.502716	0.013058	0.032508	0.012533	0.031331
PI3	2.813738	4.386316	1.79E-05	0.000121	1.51E-05	0.000104
PIAS1	0.616095	3.432049	0.000717	0.002835	0.000703	0.002781
PIAS2	0.644999	3.747263	0.000229	0.001065	0.000226	0.001052
PIAS4	0.530792	5.053819	9.16E-07	8.95E-06	1.25E-06	1.17E-05
PICALM	0.803662	3.852558	0.000154	0.000766	0.000145	0.000731
PIGC	-0.06324	-0.38279	0.702245	0.784911	0.702269	0.784691
PIGF	-0.18065	-1.03225	0.303097	0.416378	0.302635	0.415902
PIGL	0.075993	0.545215	0.586163	0.689259	0.58761	0.690614

PIGN	0.299722	1.275994	0.203315	0.307725	0.201196	0.305433
PIGR	-1.29717	-2.35932	0.019192	0.044793	0.018183	0.042709
PIGT	0.218037	1.764219	0.079096	0.145499	0.081304	0.148341
PIK3C2A	-0.56399	-2.34719	0.019812	0.046006	0.01921	0.044807
PIK3C2B	0.972709	5.303522	2.78E-07	3.04E-06	2.62E-07	2.88E-06
PIK3C2G	0.482194	0.957698	0.339276	0.45469	0.335235	0.450301
PIK3C3	0.230475	1.449783	0.148556	0.239771	0.148878	0.240043
PIK3CA	0.66426	3.708965	0.000264	0.001203	0.000258	0.001182
PIK3CB	1.095796	5.647109	5.06E-08	6.66E-07	4.62E-08	6.15E-07
PIK3CD	-0.26783	-2.29384	0.022752	0.051635	0.024025	0.054003
PIK3CG	0.559802	2.709146	0.007282	0.019737	0.007085	0.019336
PIK3R2	0.604794	4.387216	1.79E-05	0.00012	1.92E-05	0.000128
PILRA	0.18407	1.275258	0.203575	0.307951	0.204909	0.309271
PILRB	-0.24102	-1.00036	0.318243	0.432171	0.315861	0.429308
PIM1	0.174634	0.861771	0.389761	0.505822	0.388299	0.504564
PIM2	-0.15966	-0.62783	0.530773	0.6406	0.528562	0.637966
PIN1	0.198315	1.513703	0.13155	0.218166	0.133689	0.220626
PINX1	0.55012	2.191039	0.029509	0.063749	0.028654	0.062349
PIP5K1A	0.073498	0.442854	0.65831	0.748261	0.65831	0.748753
PIP5K1B	-0.00039	-0.00175	0.998605	0.999243	0.998599	0.999237
PIP5K1C	0.00915	0.07861	0.937415	0.957377	0.938007	0.957982
PIPOX	0.487063	1.150006	0.251402	0.36068	0.247641	0.35681
PIR	0.474451	1.239021	0.21667	0.322473	0.213176	0.318476
PISD	-0.15228	-1.09964	0.2727	0.383371	0.274624	0.385409
PITPNA	-0.34131	-2.0605	0.040538	0.08317	0.040528	0.083217
PITPNB	0.487781	3.531699	0.000504	0.002089	0.000529	0.002182
PITPNC1	0.496595	2.444804	0.015287	0.037035	0.014964	0.036422
PITX2	-1.30325	-2.93195	0.003728	0.011249	0.003457	0.010556
PKHD1	0.221471	2.143499	0.033181	0.070279	0.035752	0.074737
PKIA	-0.12797	-0.40478	0.686038	0.771752	0.684015	0.76989
PKIG	0.129275	0.699794	0.484802	0.597109	0.484014	0.596295
PKN1	-0.72486	-3.963	0.0001	0.000533	9.73E-05	0.000518
PKN2	0.424328	2.686351	0.00778	0.020907	0.00783	0.020981
PKN3	1.121076	4.616764	6.66E-06	5.02E-05	5.96E-06	4.58E-05
PKNOX1	0.351347	3.561109	0.000453	0.001906	0.000558	0.002286
PKNOX2	0.650072	6.011985	7.63E-09	1.21E-07	1.11E-08	1.71E-07
PKP2	-0.24061	-0.82822	0.408449	0.524798	0.405488	0.521279
PKP4	0.487178	2.245668	0.025728	0.057039	0.025151	0.056016
PLA2G2A	-0.64173	-1.02117	0.308303	0.421965	0.30408	0.417521
PLA2G5	-0.13777	-0.45814	0.647305	0.74056	0.645158	0.739328
PLA2G6	0.056543	0.49664	0.619943	0.716609	0.623552	0.719726

PLA2G7	1.505852	4.325625	2.32E-05	0.00015	2.02E-05	0.000133
PLA2R1	-0.19469	-1.73218	0.084656	0.152856	0.088032	0.158342
PLAA	0.391534	1.896675	0.059193	0.114914	0.058346	0.113411
PLAGL1	1.156389	3.328719	0.001024	0.003758	0.00094	0.003494
PLAGL2	1.092019	5.595578	6.56E-08	8.43E-07	5.99E-08	7.79E-07
PLAT	0.038344	0.115453	0.908192	0.936486	0.907548	0.935821
PLAU	0.794095	2.84002	0.004938	0.014332	0.004679	0.013661
PLAUR	0.118134	0.439373	0.660827	0.750576	0.65898	0.749022
PLB1	-0.02612	-0.33694	0.736488	0.811605	0.744561	0.817552
PLCB1	0.824509	4.44304	1.41E-05	9.77E-05	1.35E-05	9.45E-05
PLCB2	0.483347	6.062635	5.83E-09	9.45E-08	1.47E-08	2.18E-07
PLCB4	0.685256	1.442497	0.150597	0.24247	0.147248	0.237987
PLCD1	0.389998	3.178917	0.001693	0.005794	0.00183	0.006174
PLCG1	-0.07341	-0.64456	0.519889	0.631554	0.524189	0.634925
PLCG2	-0.07106	-0.5197	0.603802	0.703139	0.605386	0.704983
PLCL2	0.282778	0.865862	0.387518	0.503827	0.384215	0.501196
PLCXD1	-0.01529	-0.07553	0.939863	0.959461	0.939679	0.959273
PLD1	-0.2719	-0.87456	0.382774	0.500149	0.379582	0.496117
PLD2	-0.01883	-0.1738	0.862181	0.900208	0.86386	0.901853
PLEK	-0.44694	-2.0754	0.039123	0.080683	0.038374	0.079382
PLEK2	-0.08874	-0.34353	0.731534	0.80785	0.730112	0.80628
PLEKHA1	1.099636	4.397309	1.71E-05	0.000116	1.54E-05	0.000106
PLEKHA3	0.608071	3.588015	0.000411	0.001752	0.000408	0.001731
PLEKHA4	0.055874	0.233046	0.815945	0.867795	0.815063	0.867088
PLEKHF2	-0.00803	-0.04749	0.962163	0.974395	0.96215	0.974382
PLEKHG1	0.587888	2.493904	0.013378	0.033197	0.012941	0.032231
PLEKHH1	0.331678	1.425821	0.15535	0.248772	0.15345	0.246149
PLEKHM1	0.317887	2.752601	0.006411	0.017807	0.006929	0.019001
PLK1	-0.36526	-1.786	0.07549	0.140516	0.07455	0.138958
PLK3	0.409536	2.503639	0.013025	0.03246	0.013038	0.032441
PLK4	0.246029	1.215035	0.225667	0.332455	0.224238	0.331213
PLN	0.800991	2.38547	0.017913	0.042223	0.017112	0.040598
PLOD1	0.308257	1.763744	0.079176	0.145589	0.078885	0.145054
PLOD2	0.971421	3.376777	0.000868	0.003295	0.000805	0.003103
PLOD3	0.785976	3.714303	0.000259	0.001185	0.000245	0.001134
PLP2	0.624368	2.260761	0.024761	0.055287	0.023905	0.053834
PLS3	1.380167	7.648369	6.45E-13	3.33E-11	5.72E-13	2.92E-11
PLSCR1	0.757017	4.054083	7.01E-05	0.000391	6.75E-05	0.000377
PLSCR3	0.079371	0.661676	0.508878	0.621228	0.512439	0.62444
PLTP	1.633141	4.944679	1.52E-06	1.37E-05	1.28E-06	1.19E-05
PLXNA3	-0.14743	-1.02546	0.306285	0.419935	0.307765	0.421842

PLXNB1	0.621092	5.726003	3.38E-08	4.63E-07	4.75E-08	6.29E-07
PLXNB3	-0.82518	-4.59943	7.18E-06	5.36E-05	6.93E-06	5.24E-05
PLXNC1	0.392853	1.850716	0.065563	0.12506	0.064578	0.123473
PML	0.900311	6.509041	5.12E-10	1.16E-08	5.76E-10	1.29E-08
PMP22	0.642063	3.029539	0.002745	0.008723	0.002646	0.008443
PMPCB	0.478611	3.681306	0.000293	0.001312	0.000315	0.001394
PMS1	0.861724	5.873953	1.58E-08	2.30E-07	1.67E-08	2.45E-07
PMVK	0.728924	4.855548	2.29E-06	1.94E-05	2.37E-06	2.01E-05
PNOC	-0.13316	-0.55965	0.576292	0.681402	0.574458	0.679449
PNPLA2	-0.12231	-0.64672	0.518495	0.630023	0.517596	0.629256
PNRC1	-0.2225	-1.4041	0.161712	0.256512	0.162073	0.256651
PODXL	0.154042	0.63351	0.527065	0.637029	0.524997	0.635622
POLA2	0.065639	0.594916	0.552517	0.659094	0.557109	0.663898
POLB	-0.04209	-0.21318	0.831385	0.878791	0.83093	0.878796
POLD1	-0.17484	-1.22075	0.2235	0.330557	0.224956	0.331751
POLD3	0.922356	5.482718	1.15E-07	1.38E-06	1.13E-07	1.36E-06
POLD4	-0.66141	-3.43341	0.000713	0.002829	0.000691	0.002746
POLE	-0.26513	-1.77792	0.07681	0.142466	0.077442	0.143099
POLG2	0.518132	3.307978	0.001099	0.003989	0.001111	0.004024
POLI	0.179569	0.935584	0.350523	0.46603	0.349383	0.465053
POLK	1.232209	6.324212	1.42E-09	2.84E-08	1.27E-09	2.56E-08
POLL	0.057967	0.52188	0.602283	0.701996	0.606381	0.705443
POLM	-0.26311	-1.3272	0.18583	0.287114	0.184593	0.285485
POLR1A	0.354481	2.166172	0.031383	0.066954	0.031411	0.067045
POLR1C	-0.02469	-0.11762	0.906479	0.935335	0.906153	0.934999
POLR2A	0.284157	3.233198	0.001414	0.004975	0.001806	0.006111
POLR2B	-0.13183	-1.1875	0.236321	0.344299	0.241629	0.350403
POLR2D	0.293486	2.22663	0.026995	0.059343	0.027808	0.060789
POLR2F	0.136935	1.458876	0.146039	0.236113	0.153894	0.246776
POLR2G	0.22297	1.505539	0.133633	0.220377	0.134535	0.221399
POLR2H	0.519571	2.955905	0.00346	0.010564	0.003423	0.0105
POLR2I	0.298389	1.645912	0.101223	0.176792	0.100693	0.17626
POLR2J	0.110275	0.633444	0.527108	0.637029	0.526755	0.636439
POLR2K	0.056706	0.361942	0.717746	0.797496	0.718053	0.797459
POLR2L	-0.1135	-0.7995	0.42487	0.540832	0.426437	0.542132
POLR3A	0.673662	4.798688	2.96E-06	2.44E-05	3.18E-06	2.59E-05
POLR3C	-0.12772	-0.81658	0.415061	0.531276	0.415601	0.531516
POLR3D	0.577577	4.051432	7.08E-05	0.000394	7.42E-05	0.00041
POMZP3	-0.17487	-0.40391	0.686678	0.772102	0.684296	0.769976
PON2	-0.30522	-1.0244	0.30678	0.420369	0.303653	0.417057
POSTN	0.335788	1.003203	0.316875	0.430935	0.313453	0.427226

POU2AF1	-1.36655	-4.38837	1.78E-05	0.00012	1.56E-05	0.000107
POU2F1	0.919986	9.814567	4.59E-19	9.81E-17	1.50E-18	2.93E-16
POU2F2	0.316467	3.271987	0.001242	0.004434	0.001502	0.005246
POU4F1	-0.30161	-1.64688	0.101024	0.176511	0.100442	0.175951
POU6F2	-0.28946	-2.29605	0.022623	0.051367	0.023528	0.053189
PPA2	-0.41278	-1.53701	0.12574	0.210163	0.123553	0.20715
PPARA	-0.09535	-0.53401	0.59388	0.69538	0.593411	0.695018
PPARG	1.127438	3.465091	0.000638	0.002566	0.000584	0.002375
PPAT	0.91767	4.561186	8.48E-06	6.22E-05	7.93E-06	5.86E-05
PPFIA1	0.140938	0.664534	0.507051	0.619802	0.50551	0.617959
PPFIBP1	0.574014	2.004392	0.046265	0.093006	0.044915	0.09082
PPFIBP2	-0.03573	-0.26022	0.794941	0.852299	0.795797	0.853158
PPIB	0.362999	2.279387	0.023612	0.053175	0.023708	0.053478
PPIC	0.913262	4.058948	6.87E-05	0.000385	6.38E-05	0.000357
PPIE	0.142895	0.765331	0.444902	0.5603	0.444008	0.559024
PPIG	1.036721	7.945751	1.02E-13	6.87E-12	1.28E-13	8.23E-12
PPIH	0.086058	0.738582	0.460955	0.576041	0.46519	0.580704
PPIL2	0.048715	0.442205	0.658779	0.748432	0.662493	0.752105
PPIL4	1.402186	7.684995	5.15E-13	2.72E-11	4.52E-13	2.41E-11
PPL	0.757596	2.147819	0.032831	0.069633	0.03157	0.067353
PPM1A	0.470761	2.872731	0.004471	0.013193	0.004474	0.013159
PPM1B	0.650992	5.511837	9.98E-08	1.22E-06	1.26E-07	1.49E-06
PPM1F	0.641984	6.37451	1.08E-09	2.25E-08	1.81E-09	3.54E-08
PPOX	0.148012	0.888523	0.375239	0.491945	0.375199	0.491479
PPP1CA	-0.33791	-1.88047	0.061378	0.118373	0.061007	0.117804
PPP1CB	0.18032	1.262575	0.208091	0.313169	0.209551	0.314461
PPP1CC	0.474967	3.828821	0.000168	0.000822	0.000186	0.000897
PPP1R10	0.283342	1.643402	0.101741	0.177484	0.101491	0.177128
PPP1R12B	0.042582	0.229631	0.818594	0.870057	0.818263	0.869705
PPP1R13L	0.27198	1.31168	0.191008	0.293858	0.189511	0.291583
PPP1R15A	-0.01612	-0.07706	0.938646	0.958426	0.938434	0.95821
PPP1R16B	0.230451	1.146652	0.252782	0.361729	0.251367	0.360127
PPP1R1A	0.748285	2.779411	0.005921	0.016605	0.005635	0.015898
PPP1R2	-0.2933	-1.63027	0.104488	0.181349	0.103992	0.180222
PPP1R3F	0.103712	0.976194	0.33005	0.444735	0.336424	0.451254
PPP1R7	-0.37199	-2.33739	0.020325	0.047012	0.020413	0.047029
PPP1R8	0.282	2.202307	0.028692	0.062431	0.029679	0.064135
PPP2CA	0.579293	3.023035	0.002802	0.008863	0.002735	0.008692
PPP2CB	0.054213	0.450487	0.652807	0.744888	0.655497	0.74704
PPP2R1A	-0.39647	-2.80241	0.005529	0.01569	0.005685	0.016009
PPP2R1B	0.555728	2.464334	0.0145	0.035422	0.014077	0.03455

PPP2R2A	0.087823	0.471196	0.637972	0.733121	0.637322	0.732287
PPP2R2B	0.206378	1.421437	0.156619	0.250207	0.157778	0.251546
PPP2R2D	0.799403	4.83759	2.48E-06	2.07E-05	2.46E-06	2.07E-05
PPP2R4	-0.51315	-4.63094	6.25E-06	4.75E-05	7.81E-06	5.78E-05
PPP2R5A	0.452492	4.536072	9.46E-06	6.86E-05	1.28E-05	9.05E-05
PPP2R5B	0.141146	1.147768	0.252322	0.361435	0.255903	0.364951
PPP2R5C	-0.62199	-3.80976	0.000181	0.000876	0.000181	0.000878
PPP2R5E	0.32071	2.018492	0.044765	0.090493	0.044927	0.09082
PPP3CA	0.064649	0.342091	0.732612	0.808658	0.732063	0.808055
PPP3CB	1.155957	6.727356	1.50E-10	4.00E-09	1.41E-10	3.82E-09
PPP3CC	-0.161	-0.86923	0.385677	0.502685	0.384799	0.50168
PPP3R1	1.376102	7.572075	1.03E-12	4.84E-11	9.09E-13	4.36E-11
PPP6C	0.204327	1.649004	0.100587	0.175943	0.103065	0.178946
PPY	-0.16503	-0.71735	0.473924	0.588337	0.471938	0.586181
PQBP1	-0.1061	-0.64133	0.521983	0.632922	0.522006	0.632653
PRAF2	0.645123	4.06234	6.78E-05	0.00038	6.84E-05	0.000381
PRC1	0.1666	0.680843	0.496693	0.609042	0.494515	0.60653
PRCC	0.447346	2.83049	0.005082	0.014645	0.005116	0.014708
PRCP	0.342857	2.98702	0.003139	0.009753	0.003441	0.01053
PRDM16	0.277683	1.046583	0.296451	0.409559	0.293696	0.40659
PRDM2	0.61944	4.327163	2.30E-05	0.000149	2.42E-05	0.000156
PRDX1	0.103923	0.601005	0.548461	0.656579	0.548166	0.656068
PRDX2	0.452553	4.207446	3.77E-05	0.000232	4.66E-05	0.000277
PRDX3	0.457726	2.875346	0.004436	0.013104	0.004461	0.013128
PRDX4	0.905812	4.657242	5.57E-06	4.30E-05	5.24E-06	4.10E-05
PRDX5	0.339049	1.896261	0.059248	0.114973	0.058905	0.114308
PRDX6	0.348062	2.219627	0.027474	0.060228	0.02763	0.060542
PRELP	0.851979	2.831185	0.005071	0.014623	0.004789	0.013927
PREX1	0.036563	0.278111	0.781191	0.842302	0.78236	0.843563
PRF1	-0.65331	-3.77467	0.000207	0.000978	0.000204	0.000962
PRIC285	0.454718	4.463375	1.29E-05	9.10E-05	1.71E-05	0.000116
PRICKLE1	0.805938	3.384528	0.000845	0.003225	0.000797	0.003082
PRIM1	0.502897	2.392739	0.017571	0.041548	0.017169	0.040614
PRKAA1	-0.10169	-0.43762	0.662097	0.751656	0.660643	0.750549
PRKAB2	0.295202	1.295829	0.196405	0.299813	0.194438	0.297576
PRKACB	-0.04322	-0.11638	0.907461	0.936119	0.906768	0.935396
PRKAG1	0.136009	1.124072	0.262219	0.37211	0.266083	0.376005
PRKAG2	0.08872	0.453003	0.650997	0.743725	0.650139	0.743287
PRKAR1A	0.681429	4.28331	2.76E-05	0.000174	2.78E-05	0.000176
PRKAR1B	0.033557	0.245984	0.805926	0.860875	0.80677	0.86119
PRKAR2B	1.291292	3.341864	0.000979	0.003627	0.000894	0.003343

PRKCA	0.156786	1.405994	0.16115	0.255941	0.165822	0.261971
PRKCD	0.065084	0.300656	0.763963	0.831549	0.76308	0.830725
PRKCH	-0.27436	-2.01281	0.045364	0.091547	0.046308	0.093131
PRKCI	0.530776	1.627339	0.10511	0.182215	0.102704	0.17878
PRKCQ	0.139176	0.600807	0.548593	0.656579	0.546771	0.655233
PRKD1	0.380346	2.74707	0.006516	0.018068	0.006724	0.018492
PRKD3	0.258655	1.307797	0.19232	0.295393	0.191083	0.293494
PRKDC	-0.80069	-3.93463	0.000112	0.000584	0.000106	0.00056
PRKG2	0.636073	4.641452	5.97E-06	4.58E-05	6.46E-06	4.94E-05
PRKRIP1	0.313436	2.71723	0.007112	0.019344	0.007677	0.020677
PRKRIR	0.68576	3.623679	0.000361	0.001567	0.00035	0.00152
PRLR	-0.24371	-1.11159	0.26754	0.37795	0.265626	0.375811
PRND	0.831458	4.122919	5.32E-05	0.00031	5.03E-05	0.000293
PROC	-0.33837	-1.08292	0.280042	0.391259	0.276807	0.387893
PROCR	1.22915	3.362787	0.000911	0.00341	0.000833	0.003176
PRODH2	0.1151	1.167751	0.244183	0.353305	0.252091	0.360678
PROM1	-3.06559	-5.2666	3.33E-07	3.56E-06	2.63E-07	2.88E-06
PROSC	0.468553	1.942382	0.053379	0.105324	0.052204	0.103265
PRPF18	-0.11119	-0.85486	0.393567	0.509437	0.396304	0.512698
PRPF3	-0.78168	-4.57853	7.87E-06	5.80E-05	7.72E-06	5.73E-05
PRPF31	-0.1708	-1.16072	0.247026	0.355924	0.248205	0.357403
PRPF4	0.258275	1.666076	0.097134	0.171822	0.097568	0.172324
PRPF4B	0.440434	2.268142	0.0243	0.054438	0.023934	0.053874
PRPF8	0.029469	0.213052	0.831486	0.878791	0.832161	0.879037
PRPH	0.333871	1.536169	0.125947	0.210393	0.124466	0.208034
PRPS1	0.297989	1.662489	0.097852	0.172896	0.097391	0.172081
PRPS2	-1.01485	-4.28489	2.74E-05	0.000174	2.50E-05	0.00016
PRPSAP1	-0.12013	-0.84578	0.398605	0.514965	0.400195	0.516593
PRPSAP2	0.553947	2.715863	0.00714	0.019388	0.006955	0.01906
PRR3	-0.07869	-0.52139	0.602622	0.701996	0.603326	0.703107
PRRG1	1.850444	6.445166	7.31E-10	1.61E-08	5.67E-10	1.27E-08
PRRG2	0.878992	5.059451	8.92E-07	8.75E-06	8.64E-07	8.57E-06
PRRX1	0.119401	0.55984	0.576164	0.681402	0.574756	0.679585
PRSS16	0.073352	0.190313	0.849241	0.890349	0.8481	0.889619
PRSS21	3.97224	6.175344	3.19E-09	5.79E-08	2.32E-09	4.37E-08
PRSS23	0.711497	2.617177	0.009487	0.02473	0.00907	0.023802
PRSS8	0.137381	0.417528	0.676703	0.76315	0.674566	0.76131
PRTFDC1	0.235206	0.70021	0.484543	0.596947	0.481442	0.594139
PSAP	0.77961	4.971909	1.34E-06	1.24E-05	1.36E-06	1.26E-05
PSCA	-3.4574	-4.70878	4.43E-06	3.52E-05	3.64E-06	2.94E-05
PSD	0.2035	1.35688	0.176223	0.274891	0.177106	0.275538

PSD4	-0.37383	-2.27797	0.023698	0.053292	0.023712	0.053478
PSEN1	-0.4754	-2.62086	0.009388	0.024514	0.009273	0.024225
PSEN2	0.633869	3.610806	0.000379	0.001629	0.000373	0.001605
PSIP1	0.233545	1.137924	0.256401	0.365399	0.254858	0.363972
PSMA1	-0.17836	-1.20043	0.231276	0.338016	0.232333	0.339436
PSMA2	0.151507	1.255251	0.210731	0.31603	0.214465	0.319894
PSMA3	-0.13257	-0.89539	0.371566	0.487947	0.372697	0.489144
PSMA5	-0.10765	-0.85975	0.390874	0.506649	0.394174	0.510222
PSMA6	-0.09069	-0.64761	0.517918	0.629647	0.519483	0.630987
PSMB1	0.231583	1.73919	0.083413	0.151017	0.084974	0.153979
PSMB10	-0.68781	-3.824	0.000171	0.000835	0.000167	0.000822
PSMB2	-0.0119	-0.05859	0.953331	0.969332	0.953187	0.969058
PSMB3	0.002326	0.010793	0.991399	0.994998	0.991366	0.994965
PSMB5	-0.00911	-0.06313	0.949723	0.96657	0.949873	0.96653
PSMB7	-0.41622	-2.98428	0.003167	0.009824	0.003277	0.010103
PSMB8	0.223779	1.148179	0.252153	0.361424	0.250929	0.359853
PSMB9	-0.23728	-1.08161	0.280621	0.391835	0.278694	0.389608
PSMC2	-0.51209	-2.47504	0.014084	0.034586	0.013759	0.033894
PSMC3	0.152089	0.83846	0.402691	0.519102	0.401972	0.518131
PSMC4	-0.18815	-1.07514	0.283501	0.394567	0.28304	0.394484
PSMC5	0.152589	1.187157	0.236457	0.344391	0.239332	0.347716
PSMC6	0.399547	2.85828	0.004672	0.013657	0.004821	0.013988
PSMD1	0.425907	2.904969	0.004051	0.012105	0.00414	0.012347
PSMD12	0.358977	2.27741	0.023732	0.053317	0.023857	0.053752
PSMD13	-0.33359	-2.19632	0.029124	0.063137	0.029396	0.063706
PSMD14	0.364749	2.774502	0.006008	0.016809	0.006277	0.017478
PSMD5	0.003585	0.033609	0.973219	0.982188	0.973567	0.982134
PSMD8	-0.5502	-3.63091	0.000352	0.001532	0.000359	0.001554
PSME1	0.207788	1.585479	0.114307	0.194504	0.116309	0.19749
PSME2	-0.17251	-1.13338	0.258298	0.367434	0.25912	0.368489
PSME3	0.414861	2.490567	0.0135	0.033448	0.013482	0.033369
PSMF1	0.557728	3.844742	0.000158	0.000784	0.000164	0.00081
PSORS1C2	0.626938	2.800589	0.005559	0.015744	0.005359	0.015273
PSPH	0.996615	2.128086	0.034453	0.072321	0.032992	0.069817
PTBP1	0.163195	1.84636	0.066196	0.126163	0.072526	0.135914
PTDSS1	0.250234	1.437476	0.152016	0.244182	0.151654	0.244017
PTDSS2	0.698706	4.845098	2.40E-06	2.02E-05	2.54E-06	2.13E-05
PTEN	0.156293	0.962965	0.336632	0.452049	0.336829	0.451668
PTER	0.450995	1.497605	0.135682	0.223083	0.133137	0.219868
PTGER2	1.821822	5.650434	4.97E-08	6.56E-07	4.00E-08	5.42E-07
PTGER3	0.939147	4.461941	1.30E-05	9.14E-05	1.21E-05	8.59E-05

PTGER4	0.862652	3.080543	0.002332	0.007617	0.002191	0.007231
PTGES	-0.23523	-0.85524	0.39336	0.509437	0.39054	0.506634
PTGIR	0.546778	6.353291	1.21E-09	2.49E-08	2.75E-09	5.07E-08
PTGIS	0.343663	1.298022	0.195651	0.299044	0.193112	0.296222
PTGS2	0.037317	0.068318	0.945595	0.963625	0.94513	0.963164
PTHLH	0.137543	0.411749	0.680928	0.767404	0.678794	0.765068
PTK2	0.199384	1.006979	0.315061	0.429214	0.313712	0.427252
PTK2B	0.351242	3.493254	0.000578	0.002353	0.000699	0.002771
PTK6	0.017935	0.063741	0.949235	0.966412	0.948924	0.966277
PTMS	-0.12626	-1.05976	0.290426	0.403013	0.294594	0.407621
PTP4A1	0.438559	1.771262	0.077914	0.143889	0.076383	0.141617
PTPLB	0.994537	5.025947	1.04E-06	1.00E-05	9.66E-07	9.30E-06
PTPN1	0.587444	6.898725	5.61E-11	1.71E-09	1.46E-10	3.93E-09
PTPN11	0.468995	3.079131	0.002343	0.007647	0.002379	0.007743
PTPN12	0.273784	0.744173	0.457573	0.572423	0.454209	0.568971
PTPN13	-0.0197	-0.10917	0.91317	0.940537	0.913046	0.940792
PTPN14	1.887034	10.96029	1.50E-22	7.50E-20	1.20E-22	6.21E-20
PTPN18	0.253377	1.777534	0.076875	0.142529	0.077826	0.143613
PTPN2	0.14758	1.413587	0.15891	0.253178	0.164747	0.260448
PTPN21	0.405821	2.812844	0.005359	0.015256	0.005488	0.015558
PTPN22	-0.11621	-0.71008	0.478413	0.591411	0.478527	0.591405
PTPN23	0.176972	1.749322	0.081643	0.148671	0.086394	0.155933
PTPN3	-0.06626	-0.35377	0.723851	0.801626	0.72332	0.801415
PTPN4	0.393074	2.425682	0.016093	0.03863	0.016128	0.038636
PTPN7	0.123706	1.151194	0.250913	0.360199	0.256929	0.365707
PTPN9	-1.24415	-8.08078	4.38E-14	3.38E-12	4.43E-14	3.53E-12
PTPRB	0.701459	3.570453	0.000438	0.001851	0.000422	0.001784
PTPRC	-0.64248	-4.03124	7.67E-05	0.000423	7.72E-05	0.000424
PTPRE	-0.10418	-0.82914	0.407932	0.524276	0.411145	0.527288
PTPRF	0.931037	3.387254	0.000837	0.003205	0.000779	0.00302
PTPRM	0.496982	3.452943	0.000666	0.002657	0.000689	0.002742
PTPRN2	-0.28335	-0.98309	0.326653	0.44117	0.323623	0.437832
PTPRO	-0.50541	-1.10706	0.269487	0.380015	0.265591	0.375811
PTPRR	0.58592	1.302795	0.194019	0.29742	0.190415	0.292563
PTPRS	-0.32868	-2.27826	0.02368	0.053277	0.024082	0.054052
PTPRT	0.327084	2.24444	0.025809	0.057136	0.0262	0.057893
PTPRU	0.258796	1.432621	0.153399	0.24615	0.152788	0.245353
PTPRZ1	0.026305	0.047669	0.962024	0.974395	0.961698	0.97434
PTRF	-0.17529	-0.90434	0.366812	0.483188	0.365614	0.481745
PTS	-0.05278	-0.31322	0.754411	0.82478	0.754345	0.824637
PTTG1	0.058396	0.304988	0.760666	0.828535	0.760128	0.828708

PTTG1IP	0.381525	2.446065	0.015235	0.036928	0.015346	0.037122
PTX3	-0.4083	-0.81656	0.415073	0.531276	0.411173	0.527288
PUM2	0.515573	3.686083	0.000287	0.001292	0.000301	0.001344
PURA	1.793018	8.423136	4.94E-15	5.04E-13	3.75E-15	4.10E-13
PURB	1.18253	5.280025	3.12E-07	3.36E-06	2.76E-07	3.01E-06
PVRL1	-0.05161	-0.51692	0.605736	0.704868	0.611519	0.709489
PVRL2	0.218785	1.115289	0.265955	0.376275	0.264679	0.375262
PWP1	-0.12024	-0.90301	0.367515	0.483708	0.369959	0.485999
PXK	0.825416	4.042025	7.35E-05	0.000407	6.95E-05	0.000386
PXMP2	-0.42815	-2.07428	0.039227	0.080863	0.038572	0.079722
PXMP4	1.543901	8.58094	1.78E-15	2.04E-13	1.52E-15	1.74E-13
PYGB	-0.2052	-1.15413	0.249712	0.358804	0.249134	0.358072
PYGL	0.532779	1.547344	0.123231	0.206483	0.120543	0.202847
PYGM	1.211925	6.09427	4.93E-09	8.10E-08	4.38E-09	7.44E-08
QARS	0.327252	2.260845	0.024756	0.055287	0.025159	0.056016
QDPR	0.702395	5.719201	3.50E-08	4.79E-07	4.29E-08	5.76E-07
QPCT	0.681833	1.622807	0.106076	0.183293	0.103326	0.179265
RAB11A	0.412277	2.317349	0.021413	0.049052	0.021243	0.048704
RAB11B	0.211028	1.711891	0.088339	0.158618	0.090711	0.16223
RAB11FIP1	0.30363	1.056684	0.291825	0.404476	0.288812	0.40105
RAB11FIP3	-0.03068	-0.1375	0.890762	0.922561	0.890308	0.921887
RAB14	0.133053	0.776823	0.438105	0.554116	0.437841	0.553376
RAB18	0.016015	0.109242	0.913111	0.940537	0.913337	0.940792
RAB1A	0.046662	0.295859	0.767619	0.833218	0.767845	0.833457
RAB20	0.171641	1.352889	0.177493	0.276139	0.180324	0.279895
RAB23	0.274339	1.323321	0.187115	0.288625	0.185629	0.286898
RAB26	0.356034	1.403394	0.161922	0.256561	0.159676	0.253625
RAB27A	0.252565	1.08367	0.279708	0.391026	0.277488	0.3885
RAB31	0.326216	1.701407	0.090292	0.161543	0.089527	0.16048
RAB32	0.08317	0.507866	0.612061	0.709767	0.61215	0.70987
RAB33A	-0.24042	-1.70818	0.089027	0.159583	0.090162	0.161371
RAB36	0.020391	0.097569	0.922364	0.946118	0.922097	0.946052
RAB37	-0.33796	-2.24534	0.02575	0.05706	0.026029	0.057652
RAB38	0.786006	2.482151	0.013814	0.034035	0.013178	0.032753
RAB3A	0.356651	2.772116	0.006051	0.016888	0.006355	0.017652
RAB40B	0.346148	1.566584	0.118662	0.200544	0.117156	0.198355
RAB4A	0.102304	0.601672	0.548017	0.656448	0.54784	0.656068
RAB4B	0.162206	1.12067	0.263661	0.373819	0.265042	0.375432
RAB5A	0.371355	2.808167	0.005435	0.015443	0.005675	0.01599
RAB5C	-0.0412	-0.20916	0.834518	0.880214	0.834076	0.880077
RAB6A	0.387068	2.854486	0.004726	0.013772	0.004911	0.014205

RAB7L1	1.616179	6.350477	1.23E-09	2.52E-08	9.91E-10	2.09E-08
RAB8B	1.216231	6.181804	3.08E-09	5.63E-08	2.74E-09	5.07E-08
RAB9A	0.13426	0.698981	0.485309	0.59742	0.484274	0.596404
RAB9B	-0.0791	-0.35083	0.726054	0.803687	0.724927	0.802439
RABEP1	0.572367	3.553987	0.000465	0.001948	0.000467	0.001954
RABGAP1	-0.27365	-1.73459	0.084226	0.152313	0.084514	0.153305
RABGGTA	0.011598	0.080996	0.935519	0.956192	0.935724	0.956274
RABGGTB	-0.33355	-1.95158	0.052269	0.103437	0.052127	0.103199
RABIF	0.185408	1.394743	0.164513	0.259933	0.166676	0.263143
RAD1	-0.20672	-0.91868	0.35928	0.474731	0.357228	0.472295
RAD17	-0.18868	-1.65818	0.09872	0.173907	0.102211	0.178156
RAD21	0.106494	0.701782	0.483563	0.596365	0.484356	0.596404
RAD23B	0.56641	3.278903	0.001213	0.004342	0.0012	0.00431
RAD50	0.47822	2.61125	0.009648	0.025121	0.009519	0.024801
RAD51	0.048867	0.337778	0.735855	0.811098	0.7366	0.811556
RAD51C	0.118353	0.553925	0.580198	0.683956	0.578793	0.682984
RAD51L1	0.485519	4.81008	2.81E-06	2.33E-05	3.89E-06	3.13E-05
RAD51L3	0.599408	4.104257	5.73E-05	0.00033	5.96E-05	0.000338
RAD54L	0.467783	2.764021	0.006198	0.017278	0.006172	0.017256
RAE1	-0.1349	-0.86187	0.389704	0.505822	0.390245	0.506436
RAF1	0.145954	1.075426	0.283373	0.394567	0.285568	0.397349
RAGE	0.64601	1.868517	0.063032	0.121016	0.061144	0.117986
RAI14	0.029321	0.127762	0.898455	0.9293	0.898004	0.928834
RALA	0.565768	3.526397	0.000513	0.002117	0.000516	0.002133
RALB	0.499112	3.21064	0.001524	0.005299	0.001542	0.005346
RALBP1	0.874924	4.114706	5.50E-05	0.000319	5.14E-05	0.000299
RALGDS	-0.4445	-2.64187	0.008842	0.023335	0.008816	0.023213
RALY	-0.26528	-1.93601	0.05416	0.106552	0.055181	0.108423
RAMP1	-0.12486	-0.3389	0.735011	0.810357	0.7331	0.808819
RAMP2	1.494846	8.810487	3.96E-16	5.48E-14	3.55E-16	4.79E-14
RAN	-0.44234	-3.18033	0.001685	0.005781	0.001752	0.005967
RANBP1	-0.07458	-0.62182	0.534708	0.643844	0.538143	0.647039
RANBP3	-0.18253	-1.75339	0.08094	0.147907	0.085249	0.154341
RANGAP1	-0.49648	-3.00799	0.002939	0.009239	0.002937	0.00922
RAP1A	0.281127	2.259727	0.024827	0.05538	0.025855	0.057346
RAP1GDS1	-1.27434	-6.75487	1.28E-10	3.54E-09	1.14E-10	3.23E-09
RAP2A	-0.23704	-1.37817	0.169562	0.266794	0.169274	0.266188
RAPGEF1	0.199561	1.233842	0.21859	0.324707	0.218803	0.325126
RAPGEF3	0.827001	6.95842	3.97E-11	1.26E-09	5.44E-11	1.68E-09
RAPGEF4	1.834233	6.573861	3.57E-10	8.51E-09	2.76E-10	6.92E-09
RARA	0.214141	1.654695	0.099425	0.174757	0.101422	0.177128

RARB	0.342064	2.547355	0.011543	0.029122	0.011937	0.02997
RARG	0.231627	1.52914	0.127679	0.212799	0.128368	0.21354
RARRES1	-1.8149	-3.45092	0.000671	0.002669	0.000603	0.002446
RARRES2	0.627342	2.533961	0.011981	0.029999	0.011542	0.029166
RARRES3	-1.02699	-3.03596	0.00269	0.00857	0.002505	0.008053
RARS	-0.25956	-2.4266	0.016054	0.038555	0.017433	0.041133
RASA1	0.485676	3.521412	0.000523	0.002153	0.000549	0.002251
RASAL2	0.669575	4.278559	2.82E-05	0.000177	2.86E-05	0.00018
RASD1	1.084877	3.169234	0.001748	0.005936	0.001618	0.005554
RASGEF1C	0.076132	0.607969	0.543841	0.652387	0.546648	0.655233
RASGRP1	-0.7832	-2.34237	0.020063	0.046452	0.019196	0.044807
RASGRP3	0.340144	2.604834	0.009825	0.025483	0.010233	0.026397
RASL11A	0.927589	3.654656	0.000323	0.001425	0.000299	0.001335
RASSF2	0.450945	2.165661	0.031422	0.067008	0.030838	0.066092
RASSF4	-0.0498	-0.28276	0.777627	0.839763	0.777401	0.840094
RBAK	0.915144	3.805938	0.000184	0.000885	0.00017	0.000833
RBBP4	0.016317	0.080839	0.935644	0.956192	0.93545	0.956201
RBBP6	0.430034	2.4881	0.013592	0.033639	0.013513	0.033395
RBBP7	1.061185	6.622328	2.72E-10	6.79E-09	2.70E-10	6.85E-09
RBBP8	0.808316	3.1074	0.002139	0.007068	0.002018	0.006721
RBL1	-0.22249	-1.93919	0.053769	0.106	0.056174	0.110054
RBM14	0.065954	0.557381	0.577839	0.682416	0.581219	0.684987
RBM15	-0.21289	-1.7704	0.078058	0.144098	0.08053	0.147101
RBM15B	0.477615	4.038694	7.45E-05	0.000412	8.54E-05	0.000463
RBM17	-0.12991	-0.88709	0.376009	0.49268	0.37726	0.493493
RBM3	0.56651	2.865627	0.004569	0.01343	0.004454	0.013116
RBM4	0.226577	0.904772	0.366585	0.483025	0.364067	0.480246
RBM6	-0.00083	-0.00262	0.997908	0.998969	0.997894	0.998956
RBM8A	-0.11531	-0.63471	0.526281	0.636685	0.525642	0.636075
RBM9	0.249496	1.977301	0.049268	0.098159	0.050783	0.100879
RBMS1	0.663633	3.659276	0.000317	0.001404	0.00031	0.001372
RBMS2	0.982332	7.526172	1.36E-12	6.15E-11	1.68E-12	7.44E-11
RBMX	-0.54067	-3.32966	0.001021	0.003749	0.001023	0.003757
RBP1	0.43038	1.657633	0.09883	0.173993	0.096965	0.171438
RBP4	1.93468	4.099642	5.84E-05	0.000335	5.07E-05	0.000295
RBP7	3.079901	10.22254	2.72E-20	7.53E-18	1.48E-20	4.09E-18
RBPMS	-0.29506	-1.81386	0.071074	0.13398	0.071162	0.133968
RBX1	-0.03828	-0.26993	0.78747	0.846869	0.78818	0.847478
RCE1	0.011165	0.101868	0.918955	0.944269	0.91991	0.945251
RCL1	0.595905	3.342886	0.000976	0.003617	0.000959	0.003548
RCN2	0.348308	2.122781	0.0349	0.07313	0.034922	0.073242

RCOR1	0.037311	0.307958	0.758408	0.82761	0.760295	0.828708
RCOR3	0.008429	0.045964	0.963381	0.975382	0.963319	0.975356
RDBP	0.172071	1.013027	0.31217	0.426016	0.311958	0.425726
RDH11	0.550489	4.18912	4.07E-05	0.000247	4.44E-05	0.000266
RDH13	0.992948	3.930497	0.000114	0.000593	0.000104	0.000552
RDH14	0.162923	0.991193	0.32269	0.436821	0.322769	0.436928
RDH5	0.748371	4.961163	1.41E-06	1.29E-05	1.46E-06	1.33E-05
RECK	0.662893	4.52273	1.00E-05	7.24E-05	1.05E-05	7.57E-05
RECQL4	0.158065	1.233203	0.218828	0.324855	0.221693	0.328412
RECQL5	0.167162	1.343073	0.180645	0.280116	0.183761	0.284384
REG1A	1.126481	1.649011	0.100586	0.175943	0.097602	0.172324
REG1B	-2.46306	-3.45302	0.000666	0.002657	0.000595	0.002417
REL	0.280492	1.775535	0.077205	0.142915	0.07747	0.143099
RELA	-0.22835	-1.86706	0.063235	0.121259	0.065271	0.124453
RELB	0.220279	1.277942	0.202629	0.307328	0.202309	0.306233
REPIN1	-1.19391	-5.71415	3.59E-08	4.88E-07	3.19E-08	4.38E-07
REPS2	1.956837	6.170586	3.27E-09	5.89E-08	2.54E-09	4.76E-08
RER1	-0.15239	-1.20688	0.228787	0.335594	0.2319	0.338909
RERE	0.267746	1.811541	0.071433	0.134402	0.072098	0.135327
RERG	0.036151	0.114203	0.909182	0.937301	0.908566	0.936665
RET	0.501735	2.735073	0.00675	0.018531	0.00665	0.01834
REV3L	1.188351	7.404182	2.84E-12	1.20E-10	2.79E-12	1.19E-10
RFC1	-0.00246	-0.01669	0.986697	0.991762	0.98673	0.991795
RFC3	-0.135	-0.55011	0.582808	0.686515	0.580891	0.684944
RFC4	0.289546	1.230266	0.219923	0.326172	0.217752	0.323743
RFFL	0.740979	5.619284	5.82E-08	7.58E-07	6.66E-08	8.44E-07
RFPL3S	-0.0246	-0.18054	0.856899	0.896622	0.857533	0.897157
RFX2	0.948369	5.282179	3.09E-07	3.33E-06	2.94E-07	3.17E-06
RFX3	0.665428	4.572739	8.07E-06	5.94E-05	8.46E-06	6.22E-05
RFX5	0.354327	2.045058	0.04205	0.085799	0.041877	0.085463
RFXANK	0.336209	1.835987	0.067722	0.128551	0.06725	0.127759
RFXAP	0.837471	4.274581	2.86E-05	0.00018	2.71E-05	0.000172
RG9MTD2	1.658509	7.708652	4.46E-13	2.44E-11	3.52E-13	1.99E-11
RG9MTD3	0.223834	1.925902	0.055417	0.108734	0.057747	0.112431
RGL2	0.394354	2.264296	0.02454	0.054896	0.024404	0.054618
RGN	1.388383	3.423506	0.000738	0.002898	0.00067	0.002681
RGS1	1.203257	3.169675	0.001745	0.005931	0.001608	0.005525
RGS10	0.709384	5.378551	1.93E-07	2.21E-06	2.19E-07	2.48E-06
RGS11	0.279578	1.651456	0.100085	0.175588	0.099945	0.175276
RGS12	0.413346	3.339269	0.000988	0.003652	0.001071	0.003905
RGS13	0.012069	0.047567	0.962105	0.974395	0.961902	0.97434

RGS16	-0.12761	-0.4566	0.64841	0.74131	0.646418	0.740113
RGS19	0.530159	2.792634	0.005693	0.016024	0.005582	0.015785
RGS2	0.443265	1.312219	0.190826	0.293675	0.187677	0.289492
RGS3	0.573206	3.952952	0.000104	0.00055	0.000109	0.000569
RGS4	0.569038	1.667996	0.096752	0.171275	0.094376	0.167764
RGS5	0.280941	0.919658	0.358768	0.474302	0.355592	0.470916
RGS6	0.433107	4.875722	2.09E-06	1.79E-05	3.39E-06	2.75E-05
RHBDF1	-0.21373	-1.75274	0.081053	0.147999	0.083429	0.151572
RHEB	0.065363	0.582662	0.560723	0.667527	0.564992	0.67091
RHOA	-0.104	-0.69857	0.485565	0.59758	0.486544	0.59847
RHOC	0.384746	2.991033	0.0031	0.009662	0.003278	0.010103
RHOJ	0.743651	4.058381	6.89E-05	0.000385	6.67E-05	0.000373
RHOQ	0.784258	4.867305	2.17E-06	1.84E-05	2.17E-06	1.86E-05
RHOT2	0.206138	1.725378	0.085877	0.154822	0.088552	0.158974
RIN1	0.343469	2.37834	0.018254	0.042854	0.018584	0.043521
RING1	0.388114	3.814581	0.000178	0.000863	0.00022	0.001028
RIOK2	0.594875	4.05218	7.06E-05	0.000393	7.32E-05	0.000405
RIPK1	0.040431	0.316479	0.751942	0.822655	0.753463	0.823936
RIPK3	0.260747	1.335326	0.183162	0.283738	0.182018	0.282152
RNASE1	-0.33031	-1.50432	0.133945	0.220815	0.132382	0.219005
RNASE6	0.118465	0.508775	0.611424	0.709379	0.609783	0.707995
RNASEH1	0.503923	3.429843	0.000722	0.002852	0.000743	0.002903
RNASEH2A	-0.16754	-0.85455	0.393741	0.509522	0.392486	0.508457
RNASET2	-0.8983	-4.95192	1.47E-06	1.34E-05	1.40E-06	1.28E-05
RND1	1.505452	5.576705	7.21E-08	9.11E-07	6.01E-08	7.79E-07
RNF10	-0.26399	-1.88493	0.060769	0.117344	0.061714	0.118876
RNF121	-0.08372	-0.56404	0.573306	0.678383	0.574194	0.679434
RNF13	0.465383	3.38227	0.000852	0.003248	0.000893	0.003343
RNF130	0.291826	1.912159	0.057167	0.11158	0.057568	0.11213
RNF135	0.4484	2.122067	0.034961	0.073224	0.034303	0.072169
RNF138	1.025475	5.10591	7.17E-07	7.18E-06	6.59E-07	6.64E-06
RNF14	0.094835	0.568173	0.570502	0.675916	0.57046	0.675866
RNF141	-0.20037	-1.41866	0.157427	0.251242	0.158873	0.252863
RNF146	-0.20083	-1.30092	0.194658	0.298302	0.195288	0.298585
RNF167	0.631153	4.862577	2.22E-06	1.88E-05	2.50E-06	2.10E-05
RNF2	0.258124	1.696092	0.091296	0.163029	0.091844	0.16407
RNF34	0.246493	1.183667	0.237834	0.345838	0.236229	0.344485
RNF38	0.911632	5.968938	9.58E-09	1.49E-07	9.87E-09	1.56E-07
RNF4	-0.45278	-3.47213	0.000623	0.002516	0.000666	0.002667
RNF40	0.352653	2.452242	0.014983	0.03643	0.015279	0.036996
RNF44	0.42352	2.440026	0.015485	0.037418	0.015391	0.037212

RNF6	-0.2548	-1.12288	0.262724	0.372715	0.260645	0.370307
RNF7	0.393984	2.717796	0.0071	0.019323	0.007256	0.019734
RNF8	0.035146	0.370575	0.711314	0.791847	0.716464	0.796636
RNGTT	0.138343	0.935429	0.350602	0.46603	0.351752	0.46728
ROBO1	0.216	0.767596	0.443558	0.558907	0.44077	0.556438
ROCK1	-0.10688	-0.94189	0.347292	0.462806	0.352329	0.467914
ROD1	0.372374	1.590175	0.113244	0.193079	0.111564	0.191004
ROM1	0.257652	1.885762	0.060657	0.117223	0.061771	0.118887
ROR2	0.494313	3.191782	0.001623	0.005604	0.001643	0.005634
RORA	0.258568	2.057218	0.040855	0.083705	0.042226	0.085988
RORC	0.624434	2.997683	0.003036	0.0095	0.002934	0.00922
RP2	0.744352	5.369325	2.02E-07	2.29E-06	2.21E-07	2.50E-06
RPA2	0.216779	1.202444	0.230496	0.337171	0.229823	0.336921
RPA3	0.378768	2.268549	0.024275	0.054433	0.024245	0.054365
RPE	0.736813	4.832298	2.54E-06	2.12E-05	2.61E-06	2.18E-05
RPGR	0.640678	3.423237	0.000739	0.002898	0.00072	0.002828
RPIA	1.015854	5.403961	1.70E-07	1.98E-06	1.59E-07	1.85E-06
RPL10A	-0.04006	-0.36096	0.718479	0.797933	0.721529	0.800375
RPL13A	0.091815	1.254192	0.211115	0.316505	0.228154	0.335416
RPL18	-0.25891	-2.71928	0.007069	0.019273	0.008168	0.021726
RPL27A	-0.20808	-0.7786	0.437059	0.55309	0.434419	0.549897
RPL28	0.080452	0.593806	0.553257	0.659642	0.555092	0.661997
RPL30	0.368987	4.76768	3.41E-06	2.76E-05	6.63E-06	5.05E-05
RPL35	0.3123	2.577265	0.010618	0.027211	0.011242	0.028545
RPL35A	-0.11272	-0.4857	0.627666	0.723489	0.626092	0.721765
RPL36AL	-0.01881	-0.14216	0.887086	0.919518	0.887681	0.919775
RPL37	-0.34333	-1.50554	0.133633	0.220377	0.13192	0.218472
RPL5	0.388928	3.578561	0.000426	0.001808	0.000496	0.002062
RPL6	0.172934	1.789867	0.074863	0.13946	0.080093	0.146474
RPL9	0.21137	2.613823	0.009578	0.024953	0.011803	0.029665
RPN1	0.327146	1.902743	0.058392	0.113593	0.058215	0.113202
RPS13	0.343799	3.805271	0.000184	0.000885	0.000249	0.001142
RPS14	-0.95209	-7.73814	3.72E-13	2.07E-11	5.04E-13	2.63E-11
RPS15A	-0.45073	-2.10392	0.036532	0.076108	0.035826	0.074837
RPS16	0.281664	2.363913	0.018962	0.044338	0.01999	0.046283
RPS20	0.349088	3.87681	0.00014	0.000709	0.000192	0.000916
RPS21	-0.26117	-1.19792	0.23225	0.339104	0.23041	0.337435
RPS23	0.321031	1.702692	0.090051	0.161275	0.089363	0.160308
RPS24	-0.43764	-2.4375	0.01559	0.037596	0.01544	0.037252
RPS25	0.160225	1.56853	0.118208	0.19992	0.123749	0.207277
RPS27A	-0.78762	-3.27854	0.001214	0.004344	0.001147	0.004135

RPS28	0.278546	1.901722	0.058526	0.113807	0.059169	0.114678
RPS3	0.230797	1.888769	0.06025	0.116558	0.062237	0.119686
RPS4X	0.10417	1.084992	0.279124	0.390325	0.287839	0.400131
RPS4Y1	2.85839	7.169845	1.15E-11	4.43E-10	7.91E-12	3.13E-10
RPS5	0.294905	2.573294	0.010737	0.02747	0.011531	0.029152
RPS6KA1	-0.21235	-0.85323	0.394466	0.510319	0.392006	0.507975
RPS6KA3	0.476371	2.325919	0.020942	0.048224	0.020525	0.047218
RPS6KA4	0.642223	8.219828	1.81E-14	1.58E-12	8.60E-14	6.01E-12
RPS6KA5	1.165981	5.241786	3.75E-07	3.95E-06	3.33E-07	3.54E-06
RPS6KB1	1.120081	5.919942	1.24E-08	1.86E-07	1.13E-08	1.74E-07
RPS6KB2	0.200475	1.207662	0.228486	0.335379	0.228471	0.335601
RPS6KC1	0.812986	4.95663	1.44E-06	1.31E-05	1.43E-06	1.31E-05
RPS6KL1	-0.41745	-2.20707	0.028352	0.061835	0.028002	0.061072
RPS9	0.287653	2.800511	0.005561	0.015744	0.006274	0.017478
RQCD1	0.631376	4.13594	5.05E-05	0.000296	5.16E-05	0.000299
RRAGA	0.238541	1.472601	0.142301	0.231184	0.142468	0.231455
RRAGB	1.009756	4.994388	1.21E-06	1.13E-05	1.11E-06	1.06E-05
RRAGD	1.138694	4.099669	5.84E-05	0.000335	5.26E-05	0.000304
RRAS	-0.04326	-0.25156	0.801615	0.85705	0.801492	0.857113
RRBP1	-0.19728	-1.01198	0.312668	0.426448	0.311419	0.425238
RRM1	-0.19702	-1.13803	0.256358	0.365399	0.255989	0.364951
RRM2B	-0.1114	-0.52766	0.59827	0.698254	0.596963	0.697264
RSAD2	0.7844	2.359271	0.019194	0.044793	0.018357	0.043053
RSBN1	0.388715	2.282129	0.023447	0.052828	0.023368	0.052878
RSU1	-0.05309	-0.41161	0.68103	0.767404	0.682854	0.768906
RTCD1	1.213905	7.35916	3.73E-12	1.55E-10	3.58E-12	1.50E-10
RTN3	0.714369	4.675837	5.13E-06	4.01E-05	5.26E-06	4.10E-05
RTN4	0.374694	2.472239	0.014192	0.034741	0.014357	0.035073
RUFY1	-0.13051	-0.93096	0.352906	0.468018	0.354687	0.469983
RUNX1	0.296028	2.75204	0.006421	0.017826	0.007101	0.019359
RUNX2	0.732147	6.163156	3.41E-09	6.04E-08	4.44E-09	7.50E-08
RUNX3	-0.74439	-3.15119	0.001854	0.00627	0.001762	0.005996
RUVBL1	-0.21689	-1.4528	0.147717	0.238663	0.148584	0.239724
RXRA	0.437748	3.351875	0.000946	0.003526	0.001007	0.003707
RXRG	-0.16	-1.1137	0.266636	0.377013	0.268106	0.378101
RYBP	0.599996	3.463416	0.000642	0.002578	0.000634	0.002554
RYK	0.519737	3.180828	0.001682	0.005776	0.001684	0.005748
RYR1	-0.3958	-1.10203	0.271663	0.382468	0.26813	0.378101
RYR3	0.428555	1.751981	0.081183	0.148141	0.079648	0.145943
S100A1	0.737788	4.090253	6.06E-05	0.000345	5.89E-05	0.000336
S100A10	0.633699	2.874437	0.004448	0.013132	0.004286	0.012701

S100A11	0.288703	1.816589	0.070653	0.133362	0.07087	0.133557
S100A13	0.052873	0.222691	0.823984	0.873416	0.823155	0.87289
S100A2	0.375608	0.831697	0.40649	0.522709	0.402677	0.518374
S100A3	0.430075	1.19836	0.232078	0.338958	0.22864	0.33565
S100A8	0.106109	0.288251	0.773429	0.837584	0.771777	0.836567
S100A9	-0.27145	-0.65291	0.5145	0.626627	0.511177	0.623549
SAE1	-0.53793	-3.46322	0.000642	0.002578	0.000651	0.002614
SAFB2	0.029763	0.27204	0.785849	0.845999	0.788335	0.847478
SALL2	0.912037	4.971898	1.34E-06	1.24E-05	1.28E-06	1.19E-05
SARDH	0.134073	1.585714	0.114254	0.194504	0.123728	0.207277
SARS	0.156466	0.543265	0.587502	0.689826	0.58516	0.688424
SART3	-0.04167	-0.32308	0.746944	0.819094	0.748422	0.820322
SATB1	1.168526	3.908366	0.000124	0.000641	0.000112	0.000585
SAV1	1.629713	7.437381	2.33E-12	1.00E-10	1.85E-12	8.14E-11
SBF1	-0.0063	-0.03171	0.974736	0.983103	0.974664	0.983031
SBNO1	0.233026	0.911544	0.363015	0.479262	0.360414	0.475962
SC4MOL	0.469015	1.417255	0.157836	0.251724	0.154927	0.248018
SCAMP1	0.02469	0.120395	0.904281	0.933887	0.903974	0.93357
SCAMP3	0.350898	2.933181	0.003714	0.011224	0.004004	0.012018
SCAND1	1.038721	6.122104	4.25E-09	7.26E-08	4.09E-09	7.09E-08
SCAP	0.885277	6.097168	4.85E-09	8.06E-08	5.19E-09	8.69E-08
SCARA3	0.215816	0.701344	0.483837	0.596438	0.480927	0.593737
SCARB2	0.64813	3.385924	0.000841	0.003215	0.000816	0.003133
SCD	0.171467	0.403543	0.686944	0.772217	0.68458	0.770112
SCFD1	0.240729	1.711811	0.088354	0.158618	0.089491	0.160476
SCG2	-0.66925	-1.43808	0.151847	0.243993	0.148506	0.23969
SCGB1A1	0.88448	3.129901	0.001988	0.00665	0.001863	0.006272
SCGB2A1	-1.30898	-2.32175	0.02117	0.04863	0.020082	0.046407
SCGN	-0.04112	-0.09404	0.925167	0.947752	0.924566	0.947342
SCMH1	0.308347	1.791918	0.074533	0.13901	0.074327	0.138681
SCML1	1.32987	4.348437	2.10E-05	0.000138	1.85E-05	0.000124
SCN1B	0.789412	4.585081	7.65E-06	5.65E-05	7.48E-06	5.58E-05
SCN3A	1.286604	3.668414	0.000307	0.001365	0.000277	0.001251
SCNN1A	0.503852	3.421258	0.000744	0.002912	0.000765	0.00297
SCNN1B	-0.05791	-0.19373	0.846565	0.888535	0.845581	0.887898
SCNN1D	-0.19215	-1.38161	0.168507	0.265411	0.170161	0.267298
SCP2	0.710598	5.537285	8.79E-08	1.08E-06	1.03E-07	1.25E-06
SCPEP1	0.362608	2.094036	0.037412	0.07777	0.037253	0.077473
SCRG1	0.153531	0.345717	0.729889	0.806223	0.727787	0.804279
SCUBE3	-0.09741	-0.71689	0.474211	0.588383	0.476218	0.589438
SDAD1	-0.07559	-0.51773	0.605174	0.704387	0.60615	0.705349

SDC1	-0.99556	-2.8384	0.004962	0.014388	0.004653	0.013601
SDC3	0.282186	1.974376	0.049601	0.098741	0.050317	0.100039
SDC4	1.326435	4.620993	6.53E-06	4.94E-05	5.70E-06	4.41E-05
SDCBP	0.581934	3.783805	0.0002	0.000949	0.000203	0.000961
SDCBP2	-0.40415	-1.51747	0.130598	0.216817	0.128397	0.21354
SDCCAG1	0.216615	1.408598	0.160379	0.254914	0.161	0.25547
SDCCAG8	-0.16762	-0.82533	0.410086	0.52647	0.40863	0.524601
SDHA	0.006763	0.035661	0.971586	0.980767	0.971524	0.980705
SDHB	-0.47617	-3.93532	0.000112	0.000584	0.000126	0.000646
SDHC	-0.24021	-1.63188	0.104148	0.180826	0.104998	0.181765
SDHD	0.637402	5.908854	1.31E-08	1.96E-07	1.89E-08	2.73E-07
SDPR	1.482174	6.08937	5.06E-09	8.25E-08	4.19E-09	7.19E-08
SDS	0.497798	3.056553	0.002519	0.008136	0.002523	0.008104
SDSL	0.068996	0.330828	0.741092	0.814394	0.740237	0.814018
SEC14L2	-0.26795	-1.58336	0.11479	0.195193	0.114644	0.195156
SEC23B	-0.39598	-2.23544	0.026402	0.058232	0.026218	0.057906
SEC23IP	-0.01103	-0.06808	0.945787	0.963625	0.945812	0.96365
SEC24A	-0.52546	-2.48717	0.013626	0.033689	0.013286	0.032988
SEC24B	0.453324	3.173244	0.001725	0.005875	0.00178	0.006046
SEC24D	-1.19138	-6.54866	4.11E-10	9.60E-09	3.76E-10	9.06E-09
SEC61A1	0.28922	2.071458	0.039493	0.081304	0.040228	0.082709
SEC61B	0.134092	1.102304	0.271545	0.382468	0.27534	0.386182
SEC61G	-0.04142	-0.20917	0.834511	0.880214	0.834058	0.880077
SEH1L	0.1951	0.955356	0.340456	0.455751	0.33892	0.453954
SEL1L	1.450295	6.738152	1.41E-10	3.81E-09	1.18E-10	3.29E-09
SELENBP1	0.159168	0.803164	0.422755	0.538468	0.421458	0.536817
SELK	0.479589	3.010061	0.00292	0.009192	0.002937	0.00922
SELL	0.765806	2.558745	0.011183	0.028349	0.010663	0.027341
SELP	1.752561	6.094151	4.93E-09	8.10E-08	3.92E-09	6.85E-08
SELPLG	-0.05294	-0.47683	0.633959	0.72976	0.637793	0.732558
SELS	-0.03622	-0.19906	0.842402	0.885549	0.842159	0.885293
SELT	0.036698	0.266304	0.790256	0.848961	0.79111	0.84949
SEMA3A	0.483163	1.766408	0.078727	0.144934	0.076962	0.142453
SEMA3F	-0.20189	-1.36294	0.174308	0.272538	0.175311	0.273469
SEMA4D	0.339041	2.190852	0.029522	0.063749	0.029731	0.064188
SEMA4F	0.874635	4.598867	7.20E-06	5.36E-05	6.82E-06	5.18E-05
SEMA7A	-0.00091	-0.00807	0.993571	0.996115	0.993641	0.996184
SEMG1	0.793066	1.488438	0.138081	0.225968	0.134758	0.22161
SENP6	0.822257	4.840818	2.45E-06	2.05E-05	2.40E-06	2.03E-05
SEPHS2	1.781154	8.716543	7.34E-16	8.63E-14	5.63E-16	6.78E-14
SEPP1	0.497885	1.911117	0.057301	0.111749	0.05592	0.109647

SEPW1	0.092524	0.495712	0.620597	0.717012	0.619914	0.716752
SEPX1	-0.10727	-0.46562	0.641952	0.736615	0.640452	0.735253
SERP1	0.658804	4.925876	1.66E-06	1.47E-05	1.84E-06	1.62E-05
SERPINA3	1.225604	2.381039	0.018124	0.042625	0.01717	0.040614
SERPINA4	0.883267	2.172715	0.03088	0.066043	0.029586	0.064003
SERPINA5	0.34662	0.826036	0.409687	0.52624	0.405976	0.521764
SERPINB1	0.089646	0.339826	0.734315	0.80997	0.732866	0.808751
SERPINB2	-0.9059	-1.40586	0.161188	0.255941	0.157532	0.251409
SERPINB5	-0.68466	-1.75448	0.080754	0.147682	0.07844	0.144462
SERPINB8	1.034057	7.924486	1.17E-13	7.39E-12	1.46E-13	9.15E-12
SERPINB9	-0.60941	-2.42801	0.015993	0.03843	0.015439	0.037252
SERPINE1	-0.50502	-1.26	0.209017	0.314361	0.205485	0.309942
SERPING1	0.608145	2.677922	0.007972	0.021326	0.007698	0.02071
SERPINH1	0.494222	2.62695	0.009227	0.024173	0.009075	0.023802
SESN1	0.693674	2.204835	0.028511	0.062067	0.027447	0.060225
SET	0.308585	2.183307	0.030081	0.064764	0.030641	0.065699
SETBP1	-0.33773	-1.48349	0.13939	0.227793	0.137653	0.225549
SETDB1	-0.23464	-2.28245	0.023427	0.052809	0.025492	0.05665
SEZ6L	-0.02125	-0.16318	0.870524	0.905592	0.871264	0.90576
SEZ6L2	0.778895	3.600561	0.000393	0.00168	0.000372	0.001605
SF1	0.320136	0.996086	0.320312	0.434412	0.316985	0.430338
SF3A1	0.223744	1.841727	0.066874	0.127146	0.06904	0.130684
SF3A3	0.446559	3.004076	0.002975	0.009348	0.003035	0.009479
SF3B1	0.46404	3.495789	0.000573	0.002334	0.000609	0.00246
SF3B2	-0.03355	-0.32348	0.746643	0.818955	0.750123	0.82143
SF3B4	0.548203	3.701094	0.000272	0.001232	0.00028	0.001257
SFN	0.431157	1.133633	0.258194	0.367396	0.254582	0.363689
SFPQ	0.20205	1.563264	0.119441	0.201209	0.121639	0.204399
SFTPD	0.939152	3.862623	0.000148	0.000742	0.000137	0.000694
SFXN1	0.480013	2.282936	0.023398	0.052769	0.022905	0.051907
SFXN3	0.386292	2.106484	0.036306	0.075705	0.035978	0.075088
SGCA	-0.38251	-1.59057	0.113156	0.193079	0.111389	0.190861
SGCD	0.64089	3.291909	0.001161	0.004177	0.001125	0.004072
SGCE	-0.0165	-0.0579	0.953878	0.969346	0.953592	0.969058
SGK2	0.344531	1.235084	0.218129	0.324227	0.215345	0.321002
SGOL1	0.422502	2.741466	0.006624	0.018325	0.006696	0.018425
SGPL1	-0.60932	-2.9237	0.003824	0.011506	0.003701	0.01118
SGPP2	-0.85773	-2.38437	0.017965	0.042303	0.01713	0.040614
SGTB	0.361982	3.03955	0.002659	0.008484	0.002885	0.009101
SH2D1A	-0.19289	-1.23325	0.218812	0.324855	0.219337	0.325507
SH2D2A	1.164059	6.274427	1.87E-09	3.58E-08	1.70E-09	3.36E-08

SH2D3C	0.661187	3.82423	0.000171	0.000835	0.000169	0.000828
SH2D4A	0.453195	2.039646	0.042592	0.086696	0.041732	0.085242
SH3BGR	-0.23776	-0.97139	0.33243	0.4473	0.329983	0.445027
SH3BP5	0.753097	3.784041	0.000199	0.000949	0.000191	0.000913
SH3GLB1	0.218979	1.480381	0.140215	0.228649	0.141148	0.229708
SHANK2	0.592789	3.360286	0.000919	0.003437	0.000905	0.003383
SHB	0.161617	0.817403	0.414591	0.530947	0.4133	0.529294
SHC1	0.501199	3.711723	0.000261	0.001193	0.000278	0.001252
SHFM1	-0.46956	-2.66691	0.008229	0.021864	0.008155	0.021703
SHMT1	-0.03915	-0.27312	0.785022	0.845463	0.785684	0.845982
SHOX2	-0.1379	-0.50792	0.612021	0.709767	0.60993	0.707995
SIAH2	0.229998	1.528472	0.127845	0.213	0.128591	0.213787
SIGLEC5	0.351019	2.342903	0.020035	0.046423	0.020281	0.046795
SILV	0.204749	1.296473	0.196183	0.299662	0.196602	0.300204
SIM2	-0.70673	-2.61084	0.009659	0.025137	0.009238	0.024163
SIP1	0.393535	2.465647	0.014449	0.035314	0.01451	0.03539
SIPA1	0.438105	3.177883	0.001699	0.005798	0.00177	0.006017
SIRPB1	0.204921	1.35884	0.175602	0.274104	0.17643	0.275032
SIRT2	0.017537	0.148857	0.881804	0.914694	0.882865	0.915592
SIRT5	0.277129	3.073048	0.002389	0.007775	0.002943	0.009234
SIRT6	0.253125	2.835357	0.005008	0.014476	0.006033	0.016939
SIX5	0.071193	0.571885	0.567989	0.673618	0.570759	0.676051
SKI	0.445234	2.258142	0.024927	0.055577	0.024525	0.054863
SKIL	0.083841	0.331098	0.740889	0.814394	0.739553	0.813456
SKP2	-0.79273	-2.55893	0.011177	0.028349	0.010643	0.027304
SLA	-0.05023	-0.29344	0.769468	0.834641	0.769343	0.834698
SLAMF1	-0.11157	-0.71433	0.47579	0.589641	0.476316	0.589438
SLBP	0.11911	0.615839	0.538643	0.647806	0.537643	0.646602
SLC11A1	0.840988	6.533192	4.48E-10	1.03E-08	5.43E-10	1.23E-08
SLC11A2	0.105669	0.447211	0.655167	0.747134	0.653636	0.745472
SLC12A2	-1.52877	-4.23252	3.41E-05	0.000211	2.97E-05	0.000187
SLC12A9	-0.19165	-0.95109	0.34261	0.458113	0.341156	0.456688
SLC15A1	-0.1066	-0.42909	0.668281	0.757779	0.666662	0.755926
SLC15A2	-0.56029	-3.10384	0.002163	0.007135	0.002128	0.007048
SLC16A1	1.06483	3.345776	0.000966	0.00359	0.000891	0.00334
SLC16A2	1.325061	4.144876	4.87E-05	0.000287	4.31E-05	0.000259
SLC16A3	-0.3441	-1.16291	0.246139	0.355225	0.243107	0.351886
SLC16A4	-0.19269	-0.51265	0.608716	0.707253	0.606005	0.705349
SLC16A5	0.813488	3.08692	0.002285	0.007478	0.002155	0.007128
SLC16A7	1.853224	5.893057	1.43E-08	2.10E-07	1.13E-08	1.74E-07
SLC16A9	1.09155	2.412266	0.016681	0.039798	0.015813	0.038076

SLC17A4	0.327594	2.306098	0.022045	0.05037	0.022478	0.051185
SLC18A2	0.64384	2.324268	0.021032	0.04836	0.020265	0.046782
SLC19A2	0.551844	2.035201	0.043041	0.087421	0.041825	0.085395
SLC1A3	-0.4744	-2.08672	0.038076	0.078767	0.037232	0.077465
SLC1A4	-0.24319	-0.94783	0.344264	0.459671	0.341635	0.457065
SLC1A5	-0.78047	-3.8053	0.000184	0.000885	0.000175	0.000853
SLC20A1	0.18998	0.785774	0.432853	0.548951	0.430574	0.546604
SLC22A11	0.24581	1.399351	0.163129	0.25815	0.162694	0.257376
SLC22A17	0.570782	5.38381	1.88E-07	2.16E-06	2.62E-07	2.88E-06
SLC22A18	-0.88787	-2.83666	0.004988	0.014428	0.0047	0.013713
SLC23A1	0.011982	0.052246	0.95838	0.97182	0.958195	0.971651
SLC24A1	0.22561	2.547888	0.011526	0.029094	0.013498	0.03339
SLC25A1	-0.19158	-0.98386	0.326274	0.440785	0.325034	0.439361
SLC25A11	-0.06723	-0.44349	0.65785	0.748099	0.65844	0.748753
SLC25A12	-0.2331	-1.2907	0.198174	0.301918	0.197512	0.3013
SLC25A13	0.100899	0.399066	0.690235	0.774804	0.688668	0.77323
SLC25A14	0.51649	3.891777	0.000132	0.000678	0.000142	0.000718
SLC25A20	0.778533	3.794233	0.000192	0.000919	0.000182	0.000883
SLC25A5	0.136326	0.839251	0.402248	0.518674	0.402434	0.518203
SLC26A2	0.508692	1.753394	0.08094	0.147907	0.079033	0.145214
SLC26A3	-0.02831	-0.05574	0.9556	0.970048	0.955227	0.970225
SLC29A2	-0.12737	-0.83532	0.404454	0.520661	0.405253	0.521119
SLC2A3	1.403654	4.913923	1.75E-06	1.54E-05	1.51E-06	1.36E-05
SLC2A4RG	-0.29419	-1.90078	0.05865	0.113999	0.058981	0.114368
SLC2A5	0.389595	1.992901	0.047519	0.095079	0.046931	0.094142
SLC2A8	0.085881	0.556175	0.578661	0.682829	0.579207	0.683302
SLC30A3	0.548976	4.458554	1.32E-05	9.26E-05	1.51E-05	0.000104
SLC30A4	0.952694	8.245821	1.54E-14	1.39E-12	2.40E-14	2.05E-12
SLC30A5	-0.36428	-2.2693	0.024229	0.054355	0.024304	0.054434
SLC33A1	0.432949	2.114323	0.035624	0.074381	0.035026	0.073426
SLC35A1	0.167937	0.762184	0.446774	0.561917	0.444933	0.55979
SLC35A3	0.326364	1.672454	0.095869	0.170032	0.095001	0.168556
SLC35B1	0.462327	2.801316	0.005547	0.015725	0.005545	0.015698
SLC35B3	0.22239	1.216087	0.225267	0.332315	0.224494	0.331318
SLC35B4	0.341662	1.91183	0.057209	0.111616	0.056875	0.111149
SLC35C2	-0.19667	-1.41969	0.157125	0.250845	0.158779	0.252798
SLC35D2	-0.33082	-2.40999	0.016783	0.039963	0.017237	0.04075
SLC35E1	0.984134	7.642772	6.68E-13	3.40E-11	8.43E-13	4.08E-11
SLC35F5	-0.03981	-0.12719	0.898907	0.929358	0.898228	0.928861
SLC37A1	0.102313	0.772716	0.440527	0.556081	0.442934	0.55827
SLC37A4	0.344398	1.652956	0.099779	0.175247	0.098614	0.173461

SLC38A2	-0.20558	-1.00536	0.315839	0.430149	0.314292	0.427794
SLC39A1	-0.29288	-1.67647	0.09508	0.169014	0.094763	0.168261
SLC39A11	0.75763	2.683193	0.007852	0.021051	0.007476	0.020229
SLC39A6	-0.19888	-1.01676	0.310395	0.423962	0.309124	0.422964
SLC39A8	0.265456	2.198801	0.028944	0.062863	0.030251	0.065042
SLC3A1	-0.00352	-0.00898	0.992843	0.995809	0.992787	0.995753
SLC3A2	0.07116	0.377513	0.70616	0.787414	0.705572	0.786759
SLC40A1	0.013864	0.053143	0.957667	0.971516	0.95743	0.971486
SLC43A1	1.03312	3.794836	0.000191	0.000918	0.000175	0.000853
SLC4A2	-0.30802	-1.63419	0.103662	0.180182	0.102926	0.178836
SLC4A3	-0.15452	-0.86701	0.386891	0.503735	0.386298	0.503121
SLC4A4	1.080172	2.731814	0.006815	0.018656	0.006395	0.017711
SLC4A7	0.46659	2.29302	0.0228	0.051694	0.022368	0.050961
SLC5A1	-0.41578	-0.97944	0.328451	0.443215	0.324606	0.438909
SLC5A6	0.742296	4.134117	5.08E-05	0.000298	4.94E-05	0.00029
SLC6A1	0.323844	1.806912	0.072155	0.135326	0.071761	0.134803
SLC6A2	-0.1635	-1.16644	0.244711	0.35378	0.246453	0.355316
SLC6A5	0.658294	5.406375	1.68E-07	1.96E-06	2.04E-07	2.33E-06
SLC6A6	0.590157	3.417184	0.000755	0.002944	0.000746	0.002912
SLC6A8	-0.0614	-0.16122	0.872073	0.906158	0.871106	0.90576
SLC7A1	-0.33007	-1.37801	0.169613	0.266794	0.167536	0.264146
SLC7A5	-1.64736	-4.66026	5.50E-06	4.25E-05	4.68E-06	3.68E-05
SLC7A8	0.45311	1.795378	0.073978	0.138195	0.072446	0.135872
SLC7A9	0.112629	0.245026	0.806667	0.861471	0.805115	0.860009
SLC9A3R1	-0.09606	-0.41118	0.681343	0.767573	0.679946	0.766183
SLC9A6	0.425914	2.638922	0.008917	0.023493	0.008944	0.023522
SLC9A8	0.672445	3.305723	0.001108	0.004014	0.001067	0.003895
SLCO2A1	0.904303	3.033811	0.002708	0.008623	0.002539	0.00815
SLCO2B1	-0.18166	-1.00488	0.316068	0.430212	0.315352	0.429035
SLCO3A1	0.676856	2.867264	0.004546	0.013389	0.004355	0.012874
SLCO4A1	-0.60796	-2.7951	0.005651	0.015943	0.005462	0.015512
SLIT2	0.108045	0.420726	0.674369	0.761908	0.672694	0.760222
SLIT3	0.07314	0.526633	0.598984	0.698914	0.60043	0.700427
SLMAP	0.471899	2.052938	0.041273	0.084376	0.040362	0.082948
SLPI	0.841409	1.836787	0.067603	0.128377	0.065385	0.124543
SLU7	0.645904	4.907593	1.80E-06	1.58E-05	2.02E-06	1.75E-05
SMAD1	0.580367	2.431525	0.015843	0.038107	0.015336	0.037117
SMAD2	0.32458	2.059528	0.040632	0.08332	0.040816	0.083662
SMAD3	0.692451	4.085552	6.18E-05	0.000351	6.11E-05	0.000346
SMAD4	-1.06535	-4.34555	2.13E-05	0.000139	1.93E-05	0.000128
SMAD5	1.321801	6.373534	1.08E-09	2.26E-08	9.37E-10	1.98E-08

SMAD6	-0.198	-1.80994	0.071683	0.134763	0.075082	0.139756
SMAD7	0.228298	0.848544	0.397066	0.513374	0.394325	0.510277
SMARCA1	1.320894	4.275451	2.85E-05	0.000179	2.52E-05	0.00016
SMARCA2	0.423058	1.858249	0.064482	0.123448	0.063309	0.121449
SMARCA4	-0.14738	-0.78797	0.431571	0.547472	0.430654	0.546604
SMARCA5	0.341508	2.206856	0.028367	0.06184	0.028571	0.062197
SMARCAD1	0.129288	0.907072	0.36537	0.481694	0.366943	0.482737
SMARCAL1	0.781374	5.553914	8.09E-08	1.01E-06	8.79E-08	1.09E-06
SMARCB1	-0.29802	-3.05221	0.002554	0.008233	0.003009	0.009411
SMARCC1	0.581143	3.881797	0.000137	0.0007	0.000141	0.000714
SMARCD1	0.254144	2.163214	0.031613	0.067322	0.033169	0.070127
SMARCD2	0.384035	2.239292	0.026147	0.057749	0.026044	0.057658
SMARCD3	0.417363	3.413699	0.000764	0.002968	0.000835	0.003179
SMG1	1.127694	7.273217	6.23E-12	2.50E-10	6.32E-12	2.56E-10
SMNDC1	0.460691	3.407079	0.000782	0.003012	0.000824	0.003152
SMO	0.378048	3.430878	0.00072	0.002844	0.000824	0.003152
SMOC2	1.347536	5.017911	1.08E-06	1.03E-05	9.34E-07	9.11E-06
SMPD1	0.984531	6.020635	7.29E-09	1.16E-07	7.19E-09	1.15E-07
SMTN	-0.70505	-3.42828	0.000726	0.002863	0.000696	0.002764
SMU1	0.498455	2.899605	0.004119	0.012275	0.004089	0.012226
SMUG1	1.043451	4.389069	1.77E-05	0.00012	1.61E-05	0.00011
SMYD2	-0.11205	-0.727	0.468008	0.583121	0.468664	0.583477
SMYD5	0.248682	1.929382	0.054982	0.108032	0.056441	0.110484
SNAP25	0.257751	0.613478	0.5402	0.649179	0.536985	0.646
SNAP29	0.02008	0.08575	0.931744	0.95345	0.931426	0.953125
SNAPC4	0.209345	1.744894	0.082412	0.149725	0.084983	0.153979
SNCA	0.840611	3.003215	0.002983	0.009367	0.002811	0.008902
SNCAIP	0.351271	0.995997	0.320356	0.434412	0.316822	0.430241
SNCG	0.934213	7.786527	2.76E-13	1.60E-11	3.90E-13	2.18E-11
SND1	-0.31328	-2.33536	0.020433	0.047215	0.021037	0.048254
SNN	0.193155	1.294333	0.19692	0.300397	0.197888	0.301775
SNRPA	0.031033	0.265575	0.790817	0.84937	0.792725	0.850836
SNRPA1	-0.01573	-0.08823	0.929773	0.952055	0.929686	0.951966
SNRPB	-0.09971	-0.64322	0.520758	0.632281	0.521321	0.631986
SNRPB2	0.00895	0.073568	0.941422	0.960426	0.941885	0.960899
SNRPC	0.270114	2.491225	0.013476	0.033406	0.014633	0.035654
SNRPD2	-0.04597	-0.34289	0.732014	0.80819	0.733282	0.80883
SNRPD3	0.24552	1.64308	0.101808	0.177484	0.102529	0.178543
SNRPE	-0.53877	-1.97858	0.049122	0.097953	0.047794	0.095588
SNRPF	-0.17913	-1.1197	0.264072	0.374175	0.264399	0.374977
SNRPG	0.093203	0.79877	0.425293	0.541115	0.429642	0.545614

SNRPN	-0.38978	-3.95227	0.000105	0.000551	0.000134	0.000683
SNTA1	-0.10268	-0.66171	0.508853	0.621228	0.509417	0.621724
SNTB1	-0.88117	-3.71434	0.000259	0.001185	0.000241	0.001117
SNTB2	0.268083	1.983462	0.048571	0.096977	0.049609	0.09884
SNX1	0.422344	3.258879	0.001298	0.004609	0.001381	0.004879
SNX15	0.17563	1.206887	0.228784	0.335594	0.230066	0.337067
SOCS1	0.236884	2.131994	0.034126	0.071861	0.036159	0.075431
SOCS2	0.965919	3.196305	0.001599	0.005537	0.001488	0.00521
SOCS3	0.360279	1.955609	0.051789	0.102611	0.051364	0.101947
SOCS6	1.225257	4.357798	2.02E-05	0.000133	1.80E-05	0.000121
SOD1	0.144984	0.871894	0.384225	0.501488	0.384202	0.501196
SOD3	-0.09154	-0.3686	0.712787	0.79311	0.711363	0.791901
SORCS2	-0.23655	-1.16512	0.245245	0.354226	0.243776	0.352647
SORL1	-1.10615	-3.51777	0.00053	0.002173	0.000485	0.002019
SORT1	0.338461	1.611986	0.108412	0.186574	0.107167	0.18477
SOS1	-0.23969	-1.06043	0.29012	0.402707	0.288038	0.40029
SOX10	0.26139	2.245765	0.025722	0.057039	0.027126	0.059632
SOX13	0.307848	1.467189	0.143766	0.233	0.142357	0.231436
SOX30	-0.26171	-0.88158	0.378975	0.495769	0.375902	0.491991
SOX5	0.324581	1.988909	0.047962	0.095849	0.048014	0.095947
SOX8	-2.14248	-4.68836	4.85E-06	3.81E-05	4.05E-06	3.24E-05
SOX9	0.15274	0.442423	0.658621	0.748432	0.656311	0.747434
SP1	0.762753	4.948259	1.50E-06	1.35E-05	1.53E-06	1.38E-05
SP100	0.476174	2.488625	0.013572	0.033609	0.013348	0.03309
SP110	0.423735	2.775627	0.005988	0.016773	0.006064	0.017006
SP140	-0.55486	-4.7868	3.13E-06	2.55E-05	3.81E-06	3.06E-05
SP2	0.130786	1.070817	0.285436	0.396908	0.289184	0.401407
SP3	0.054693	0.321633	0.748039	0.819912	0.747932	0.820322
SPA17	0.089878	0.360314	0.718961	0.79828	0.717556	0.797284
SPAG1	0.220101	0.621681	0.534801	0.643844	0.531807	0.640895
SPAG5	0.154661	0.684261	0.494537	0.606556	0.492674	0.604587
SPAG7	0.310355	2.692942	0.007633	0.020547	0.008232	0.02187
SPAG9	0.98529	4.471301	1.25E-05	8.82E-05	1.15E-05	8.25E-05
SPARC	0.202683	1.195004	0.233384	0.340654	0.233187	0.340472
SPARCL1	0.872318	4.79323	3.04E-06	2.49E-05	2.90E-06	2.39E-05
SPATA2	0.438787	2.562235	0.011074	0.02818	0.011019	0.028039
SPDEF	0.251501	1.438943	0.151601	0.243681	0.151211	0.243388
SPG20	0.946692	6.763821	1.22E-10	3.39E-09	1.36E-10	3.73E-09
SPG7	-0.29313	-1.65853	0.098649	0.173847	0.098262	0.173124
SPHK1	-0.3071	-1.21726	0.224821	0.332073	0.222358	0.329057
SPIB	-0.9163	-2.64229	0.008832	0.02332	0.00835	0.022165

SPINK1	0.233277	0.405993	0.685146	0.770933	0.682574	0.768775
SPINT1	0.151072	0.76498	0.445111	0.560413	0.44386	0.559024
SPINT2	0.028454	0.117781	0.90635	0.935335	0.905888	0.934931
SPIRE2	0.164422	0.805615	0.421343	0.537106	0.41987	0.535084
SPON1	1.262842	3.823657	0.000172	0.000835	0.000154	0.000769
SPOP	1.35094	7.679834	5.32E-13	2.78E-11	4.80E-13	2.53E-11
SPRED2	0.019261	0.145837	0.884185	0.916759	0.8848	0.917397
SPRR1B	-3.25811	-5.55044	8.23E-08	1.02E-06	6.35E-08	8.13E-07
SPRY1	0.497206	2.422574	0.016228	0.038894	0.015878	0.038171
SPRY2	-0.71391	-2.31813	0.021369	0.049017	0.020514	0.047215
SPTA1	-0.34181	-3.30387	0.001115	0.004031	0.001305	0.004638
SPTB	0.507253	5.989719	8.58E-09	1.34E-07	1.87E-08	2.71E-07
SPTBN1	0.377819	1.973112	0.049746	0.098945	0.049205	0.098159
SPTBN5	-0.02842	-0.17501	0.861233	0.89951	0.86129	0.899636
SPTLC1	-0.13293	-0.7664	0.444266	0.559649	0.443904	0.559024
SQSTM1	0.660753	4.495071	1.13E-05	8.07E-05	1.18E-05	8.43E-05
SRC	0.433787	3.830424	0.000167	0.000819	0.000194	0.000924
SRCAP	0.692793	6.435541	7.71E-10	1.68E-08	1.17E-09	2.41E-08
SRD5A1	-1.12815	-3.77912	0.000203	0.000964	0.000184	0.000891
SREBF1	0.096728	0.678331	0.498281	0.61083	0.499689	0.611917
SREBF2	-0.86121	-5.33844	2.35E-07	2.62E-06	2.35E-07	2.63E-06
SRF	0.381748	2.817883	0.005279	0.015118	0.005482	0.015548
SRI	0.137849	0.566946	0.571334	0.676732	0.569409	0.674961
SRM	-0.01972	-0.10378	0.917437	0.943135	0.917255	0.943082
SRP14	0.13675	1.439761	0.15137	0.243393	0.159063	0.252993
SRP54	-0.066	-0.38912	0.697565	0.780608	0.697451	0.780481
SRP68	-0.10468	-0.71273	0.476773	0.589772	0.4779	0.591243
SRP72	0.435332	2.824603	0.005173	0.014861	0.005231	0.014974
SRPK1	0.137817	1.014633	0.311406	0.42522	0.313602	0.427226
SRPR	0.871841	5.490874	1.11E-07	1.33E-06	1.12E-07	1.35E-06
SRPX	1.39104	4.047249	7.20E-05	0.000399	6.37E-05	0.000357
SRPX2	-0.0447	-0.29743	0.766424	0.832685	0.766886	0.832994
SRRM1	0.621881	5.608309	6.15E-08	7.99E-07	8.33E-08	1.03E-06
SS18	-0.14793	-0.64835	0.517439	0.629391	0.515593	0.627572
SSB	0.48157	3.778121	0.000204	0.000966	0.000222	0.001038
SSBP2	0.589921	4.181629	4.19E-05	0.000253	4.43E-05	0.000265
SSBP3	-0.22315	-1.10402	0.270801	0.381638	0.269337	0.379461
SSFA2	0.281295	0.84315	0.400069	0.516431	0.396741	0.513122
SSNA1	0.056716	0.331349	0.740699	0.814394	0.74056	0.814183
SSPN	1.199173	4.880996	2.04E-06	1.76E-05	1.80E-06	1.59E-05
SSR1	0.037821	0.209605	0.834172	0.880214	0.833937	0.880077

SSR2	0.097914	0.740479	0.459806	0.57491	0.462187	0.577167
SSR3	0.278207	1.480503	0.140183	0.228649	0.139357	0.22766
SSR4	-0.02233	-0.12732	0.898806	0.929358	0.898708	0.928974
SSSCA1	0.02582	0.162045	0.87142	0.905922	0.871521	0.905827
SST	-1.11174	-1.62331	0.105967	0.183173	0.102903	0.178836
ST13	0.348823	2.054282	0.041141	0.084181	0.041041	0.083975
ST5	-0.05749	-0.31056	0.75643	0.826028	0.755999	0.825748
ST7	0.575985	2.857657	0.004681	0.013673	0.004554	0.013351
ST7L	0.795534	4.941664	1.54E-06	1.39E-05	1.55E-06	1.39E-05
STAG2	0.732087	3.994754	8.86E-05	0.000477	8.58E-05	0.000465
STAM	0.412313	1.995621	0.04722	0.094561	0.04648	0.093437
STAM2	0.592422	3.364963	0.000904	0.003387	0.000891	0.00334
STAMPB	0.670188	3.532538	0.000502	0.002086	0.000487	0.002027
STAP2	0.194292	0.739908	0.460152	0.57519	0.457626	0.57249
STARD3	0.547705	1.843288	0.066645	0.126916	0.064898	0.123964
STARD7	0.275725	2.474519	0.014104	0.034603	0.015187	0.036832
STAT1	-0.37239	-1.76867	0.078348	0.144462	0.077286	0.142896
STAT2	-0.54871	-3.67958	0.000294	0.001317	0.000302	0.001345
STAT3	0.497625	2.551643	0.011406	0.028823	0.011188	0.02844
STAT4	-0.12218	-0.62755	0.530956	0.6406	0.529906	0.639038
STAT5B	0.382935	2.250119	0.02544	0.05656	0.025359	0.056379
STAU2	0.785462	3.358502	0.000925	0.003455	0.000874	0.003291
STIM1	0.135742	0.938616	0.348967	0.464498	0.350374	0.466108
STIP1	0.254847	1.533354	0.126639	0.211289	0.126611	0.211224
STK10	0.692607	4.899229	1.88E-06	1.63E-05	2.01E-06	1.74E-05
STK16	0.086835	0.706452	0.480662	0.593565	0.483985	0.596295
STK17A	0.306178	1.559122	0.120418	0.202576	0.119418	0.201387
STK17B	-0.04352	-0.23441	0.814889	0.867099	0.814548	0.866933
STK19	0.327381	2.559008	0.011175	0.028349	0.011676	0.02941
STK24	-0.31348	-1.74394	0.082579	0.149912	0.082142	0.149522
STK25	0.465199	2.70121	0.007452	0.020152	0.007404	0.020058
STK3	0.538827	3.558328	0.000458	0.001922	0.000467	0.001954
STK32B	0.532217	2.534748	0.011954	0.029966	0.011652	0.029364
STK33	0.415527	2.219627	0.027474	0.060228	0.027154	0.059666
STK35	0.123855	0.989794	0.323372	0.437492	0.326751	0.441428
STK38	-0.09599	-0.46719	0.640829	0.735685	0.639744	0.73462
STK38L	0.227393	0.888081	0.375476	0.492119	0.372882	0.489144
STK39	0.084953	0.318719	0.750245	0.821755	0.748858	0.820427
STK4	0.267655	1.243065	0.215179	0.320959	0.213434	0.318659
STMN2	-1.52078	-3.609	0.000381	0.001637	0.000342	0.001494
STOM	0.736638	3.371388	0.000885	0.003336	0.000842	0.003201

STOML1	0.474609	3.19091	0.001627	0.005611	0.001663	0.005693
STRA13	0.079959	0.458759	0.646864	0.74056	0.646578	0.740116
STRAP	-0.22442	-1.37132	0.171687	0.269335	0.171784	0.269308
STRN3	1.076021	4.99393	1.21E-06	1.13E-05	1.10E-06	1.04E-05
STS	0.492623	1.88271	0.061072	0.117879	0.059628	0.115472
STUB1	-0.00742	-0.05379	0.957153	0.971414	0.957331	0.971486
STX11	0.474444	2.969695	0.003315	0.010212	0.003332	0.010255
STX16	-0.30104	-1.65753	0.098852	0.173993	0.098318	0.173135
STX1A	0.54481	2.484559	0.013724	0.033877	0.013344	0.03309
STX6	0.712032	5.640049	5.24E-08	6.88E-07	6.23E-08	8.01E-07
STX7	-0.00219	-0.01498	0.988062	0.992921	0.988094	0.992953
STX8	0.293453	3.142409	0.001908	0.006425	0.002323	0.007591
STXBP1	0.971374	2.816631	0.005298	0.015145	0.004976	0.01435
STXBP2	-0.16435	-1.32397	0.186901	0.288452	0.190089	0.292253
STXBP3	0.612643	5.172066	5.24E-07	5.36E-06	6.42E-07	6.49E-06
SUCLA2	-0.28953	-1.50036	0.134969	0.222268	0.13401	0.220998
SUCLG1	0.309476	2.068326	0.039789	0.081771	0.040193	0.082674
SUGT1	0.581324	3.379823	0.000859	0.00327	0.000851	0.003226
SULT1A1	0.743703	2.589749	0.010252	0.02646	0.009783	0.02539
SULT1E1	-2.58293	-4.11267	5.54E-05	0.000321	4.76E-05	0.000282
SULT2B1	-0.32661	-1.30919	0.191848	0.294821	0.189529	0.291583
SUMO1	0.059339	0.483617	0.629143	0.724571	0.631761	0.72749
SUMO2	0.685059	7.46593	1.96E-12	8.53E-11	4.70E-12	1.94E-10
SUMO3	0.352944	2.171222	0.030994	0.066245	0.031044	0.066411
SUOX	0.489537	2.73455	0.00676	0.018533	0.006681	0.018396
SUPT16H	0.447591	3.144286	0.001897	0.006391	0.001959	0.006551
SUPT3H	0.083804	0.419109	0.675549	0.762324	0.67466	0.76131
SUPT4H1	0.265537	1.608643	0.109142	0.187693	0.109159	0.187792
SUPT6H	0.335988	2.32601	0.020937	0.048224	0.021301	0.048765
SUPV3L1	-0.17547	-1.02837	0.304914	0.418545	0.304663	0.418077
SURF1	-0.221	-1.60654	0.109603	0.188349	0.111079	0.190468
SURF2	0.237484	1.597263	0.111655	0.191107	0.112452	0.192121
SUV420H1	0.518755	2.177519	0.030515	0.065519	0.029715	0.064181
SVIL	-0.67587	-2.98586	0.003151	0.009782	0.00302	0.009438
SWAP70	0.356372	1.778693	0.076684	0.142287	0.07581	0.140778
SYAP1	-0.39169	-2.17867	0.030428	0.065362	0.030187	0.064932
SYCP2	-0.10077	-0.51247	0.60884	0.707253	0.607877	0.706659
SYK	-0.50559	-2.56739	0.010916	0.027798	0.010695	0.027392
SYN1	-0.20655	-1.7299	0.085063	0.153473	0.087732	0.157872
SYN2	-0.13197	-1.02644	0.30582	0.419421	0.308785	0.422624
SYN3	0.725126	5.294914	2.90E-07	3.15E-06	3.20E-07	3.42E-06

SYNE1	0.18473	1.205599	0.229279	0.335764	0.230013	0.337067
SYNE2	0.252381	1.462301	0.145099	0.234917	0.144801	0.234731
SYNGR1	0.145806	0.91126	0.363165	0.479325	0.363496	0.479627
SYNGR3	-0.51067	-1.12963	0.259874	0.36934	0.256009	0.364951
SYNGR4	-0.67077	-4.76063	3.52E-06	2.83E-05	3.76E-06	3.04E-05
SYNJ1	0.245191	1.627004	0.105181	0.182215	0.105847	0.1831
SYNJ2BP	0.359329	1.947628	0.052743	0.104333	0.052309	0.103429
SYNPO	0.139984	0.972512	0.331874	0.446808	0.333341	0.448269
SYP	0.031643	0.19105	0.848664	0.889942	0.84867	0.889949
SYT1	0.449639	0.974608	0.330835	0.445665	0.326884	0.441481
SYT13	-0.06188	-0.12539	0.900331	0.930216	0.899502	0.92936
SYT7	-0.22947	-2.31355	0.021624	0.049458	0.023819	0.053692
SYTL1	-1.44894	-4.27577	2.85E-05	0.000179	2.49E-05	0.00016
SYTL2	1.038895	3.934758	0.000112	0.000584	0.000102	0.000541
TACC1	0.376399	1.837802	0.067452	0.128195	0.066565	0.12656
TACR2	-0.24765	-0.86594	0.387477	0.503827	0.384525	0.501462
TAF1	0.93945	6.087472	5.11E-09	8.31E-08	5.23E-09	8.70E-08
TAF10	0.49279	3.720958	0.000253	0.001159	0.000271	0.00123
TAF11	0.25533	1.508536	0.132865	0.219823	0.13271	0.219471
TAF15	-0.42294	-2.0051	0.046189	0.092893	0.045407	0.091554
TAF1A	0.524515	2.05339	0.041228	0.084323	0.040134	0.082588
TAF1B	1.156405	6.741035	1.39E-10	3.77E-09	1.31E-10	3.62E-09
TAF1C	0.182344	1.597721	0.111554	0.191025	0.115219	0.195922
TAF2	0.636543	3.786692	0.000197	0.000941	0.000196	0.00093
TAF5	0.603391	3.128243	0.001999	0.006681	0.001946	0.006518
TAF5L	0.222765	1.578813	0.115829	0.196675	0.117103	0.198337
TAF6L	-0.14361	-1.21013	0.227539	0.334406	0.23162	0.338605
TAF7	0.002252	0.009351	0.992548	0.995726	0.992511	0.995689
TAGLN	0.066761	0.329609	0.742012	0.815207	0.741248	0.814558
TAGLN2	0.439617	2.494897	0.013341	0.033124	0.013234	0.032875
TALDO1	0.231897	1.22983	0.220086	0.326311	0.219108	0.32527
TANK	0.459412	2.62587	0.009255	0.024234	0.009181	0.02404
TAOK1	0.767381	5.442972	1.41E-07	1.65E-06	1.52E-07	1.78E-06
TAOK2	0.362303	2.589923	0.010247	0.02646	0.010522	0.027053
TAP1	-0.09559	-0.51196	0.609201	0.707498	0.608499	0.706858
TAP2	-0.25265	-1.20642	0.228964	0.335661	0.22734	0.334743
TARBP1	0.169615	0.864709	0.388149	0.504508	0.386887	0.503424
TARBP2	0.105477	0.866235	0.387314	0.503827	0.391058	0.50699
TARDBP	-0.1291	-1.16158	0.246676	0.355734	0.252005	0.360678
TARP	0.225993	0.751031	0.453444	0.568014	0.450496	0.565224
TARS	-0.64543	-3.06382	0.002461	0.007982	0.002372	0.007725

TAX1BP1	0.410169	2.347236	0.019809	0.046006	0.019685	0.045802
TAX1BP3	0.424396	2.43968	0.015499	0.037434	0.015402	0.037218
TAZ	0.213648	2.190457	0.029551	0.06377	0.032416	0.068907
TBC1D16	0.201525	1.057415	0.291493	0.404254	0.290398	0.402854
TBC1D22A	0.347483	2.920693	0.00386	0.011599	0.004167	0.012403
TBC1D5	1.093104	6.535565	4.42E-10	1.02E-08	4.26E-10	1.00E-08
TBCA	0.520474	3.920441	0.000118	0.000613	0.000127	0.000654
TBCD	0.456349	4.592846	7.39E-06	5.48E-05	1.01E-05	7.36E-05
TBCE	0.546046	3.01494	0.002875	0.009063	0.002829	0.008948
TBL1X	-0.97187	-3.41024	0.000773	0.002986	0.000716	0.002819
TBP	0.103853	0.774671	0.439374	0.555272	0.441621	0.557064
TBPL1	1.009594	5.164348	5.43E-07	5.53E-06	5.03E-07	5.20E-06
TBRG4	0.385947	2.858855	0.004664	0.013647	0.004852	0.014069
TBX1	-0.31413	-2.91622	0.003913	0.011752	0.004372	0.012903
TBX19	0.619272	3.087443	0.002281	0.007471	0.002211	0.007286
TBX3	0.029613	0.201925	0.840163	0.884185	0.840574	0.884614
TBXA2R	0.805253	9.476963	4.61E-18	8.02E-16	2.09E-17	3.51E-15
TBXAS1	0.252536	1.007884	0.314627	0.428747	0.312083	0.425752
TCEA1	0.221121	1.604158	0.110127	0.189111	0.111588	0.191004
TCEA2	-0.1549	-0.90355	0.367229	0.483467	0.366943	0.482737
TCEA3	-0.20365	-0.53502	0.593183	0.69493	0.590369	0.692846
TCEAL1	0.773918	3.139236	0.001928	0.006478	0.001826	0.006164
TCEAL2	-0.45805	-1.24716	0.213679	0.318924	0.210267	0.315233
TCEAL3	1.285141	5.598552	6.46E-08	8.35E-07	5.59E-08	7.32E-07
TCEAL8	0.73551	2.430074	0.015905	0.038236	0.015223	0.0369
TCEB2	0.079239	0.51607	0.606328	0.705382	0.60689	0.705802
TCEB3	0.971383	5.31238	2.67E-07	2.93E-06	2.52E-07	2.78E-06
TCERG1	-0.04614	-0.32574	0.744932	0.817651	0.745782	0.81852
TCF12	0.375707	1.67364	0.095636	0.16981	0.094225	0.167623
TCF15	-0.14445	-0.855	0.393488	0.509437	0.393328	0.509267
TCF20	0.589314	5.276845	3.17E-07	3.41E-06	4.14E-07	4.35E-06
TCF3	0.000771	0.007608	0.993937	0.996268	0.99403	0.996342
TCF4	0.482625	3.29901	0.001133	0.004094	0.001164	0.004187
TCF7	0.248598	1.624975	0.105613	0.182694	0.106165	0.183447
TCF7L2	0.318812	1.794167	0.074172	0.138502	0.073812	0.138049
TCIRG1	0.20538	0.772583	0.440606	0.556081	0.437991	0.553376
TCL6	-0.07975	-0.96664	0.334796	0.45007	0.348077	0.46403
TCN1	-3.91133	-6.43767	7.62E-10	1.67E-08	5.41E-10	1.23E-08
TCN2	0.743711	4.104708	5.72E-05	0.00033	5.55E-05	0.000319
TCOF1	0.091135	0.572534	0.567551	0.673483	0.567863	0.673638
TDP1	-0.25452	-1.59766	0.111567	0.191025	0.111831	0.191269

TDRD7	0.46475	2.685491	0.0078	0.020947	0.007745	0.020785
TDRD9	1.30995	2.44111	0.01544	0.037348	0.014583	0.03555
TEAD1	1.925155	9.104038	5.67E-17	8.88E-15	4.13E-17	6.70E-15
TEAD2	-0.38495	-2.70475	0.007375	0.019957	0.007562	0.020427
TEAD4	0.199509	1.099996	0.272547	0.383295	0.271811	0.38226
TEK	1.246706	11.21718	2.39E-23	1.60E-20	4.94E-23	2.90E-20
TERF2	0.251545	1.868973	0.062968	0.120952	0.064216	0.12294
TERF2IP	0.335013	2.344567	0.019948	0.046254	0.020333	0.046892
TESK1	1.014205	6.678011	1.98E-10	5.18E-09	2.05E-10	5.36E-09
TESK2	0.621806	3.452685	0.000667	0.002658	0.000653	0.00262
TEX264	0.188832	1.270075	0.205412	0.309931	0.20643	0.310869
TFAM	0.867979	4.839419	2.46E-06	2.06E-05	2.37E-06	2.01E-05
TFAP2A	-0.41234	-1.67291	0.09578	0.169939	0.094083	0.167432
TFB1M	-0.10014	-0.59583	0.551908	0.658869	0.551814	0.658793
TFCP2	0.035755	0.223289	0.823519	0.87312	0.823639	0.87305
TFCP2L1	0.25387	0.799354	0.424955	0.540832	0.421797	0.537103
TFE3	0.047794	0.36704	0.713945	0.794211	0.715521	0.795964
TFF1	-4.49929	-7.64067	6.77E-13	3.40E-11	4.26E-13	2.30E-11
TFF3	-3.16232	-5.74844	3.01E-08	4.18E-07	2.29E-08	3.25E-07
TFG	-0.13848	-0.88884	0.375067	0.491857	0.375658	0.491809
TFIP11	0.081106	0.689507	0.491238	0.603139	0.495181	0.607187
TFPI	1.648817	4.128754	5.20E-05	0.000304	4.53E-05	0.000271
TFPT	-0.12184	-0.64267	0.521116	0.632553	0.520205	0.631285
TFR2	0.587789	2.55904	0.011174	0.028349	0.010811	0.027614
TGDS	-0.03104	-0.22632	0.821168	0.87161	0.821923	0.872017
TGFA	0.154642	0.797834	0.425835	0.541511	0.424679	0.540627
TGFB1I1	0.544046	2.969286	0.003319	0.010215	0.003262	0.01008
TGFB2	0.607092	2.482273	0.01381	0.034035	0.013332	0.033084
TGFB1	0.330244	1.165502	0.245089	0.35411	0.242186	0.351051
TGFB1R1	1.178451	5.495466	1.08E-07	1.31E-06	9.61E-08	1.17E-06
TGFB1R2	0.795082	4.665846	5.36E-06	4.17E-05	5.26E-06	4.10E-05
TGFB1R3	0.92351	2.937757	0.003661	0.011095	0.003436	0.010526
TGFB1RAP1	0.782974	4.456561	1.33E-05	9.33E-05	1.30E-05	9.10E-05
TGIF2	0.649682	3.351246	0.000948	0.003531	0.000919	0.003425
TGM1	0.717346	4.237906	3.33E-05	0.000207	3.29E-05	0.000204
TGM2	0.246927	0.917054	0.360128	0.475717	0.357336	0.472295
TGM3	-0.41029	-2.17468	0.03073	0.065891	0.030367	0.065231
TH	-1.02733	-4.8052	2.88E-06	2.38E-05	2.63E-06	2.18E-05
THAP1	0.689142	4.424868	1.52E-05	0.000104	1.55E-05	0.000106
THAP11	0.551233	6.184145	3.04E-09	5.59E-08	6.19E-09	1.01E-07
THAP4	-0.04822	-0.24436	0.807182	0.861587	0.806666	0.86119

THAP8	0.424782	2.668606	0.008189	0.021783	0.008231	0.02187
THBD	1.712589	6.243576	2.21E-09	4.20E-08	1.75E-09	3.45E-08
THBS1	0.457445	1.56409	0.119247	0.201066	0.116907	0.198148
THBS2	0.351534	1.046013	0.296714	0.409801	0.29329	0.406147
THBS3	0.260217	1.585583	0.114283	0.194504	0.114341	0.194712
THBS4	-1.71458	-3.32403	0.001041	0.003815	0.000943	0.003499
THOC1	-0.42563	-2.50292	0.013051	0.032506	0.013	0.032362
THOP1	-0.26063	-1.11193	0.267394	0.37795	0.26516	0.375432
THRAP3	0.902379	6.852384	7.33E-11	2.13E-09	8.76E-11	2.57E-09
THUMPD3	0.439356	2.782059	0.005875	0.016492	0.005915	0.016616
TIAM1	-0.22299	-1.20598	0.229134	0.335702	0.228281	0.335497
TIE1	0.222636	1.641135	0.102211	0.178055	0.103768	0.1799
TIFA	0.176634	1.04992	0.294918	0.40804	0.294788	0.407621
TIMELESS	0.316775	2.416229	0.016506	0.039445	0.017095	0.040591
TIMM10	-0.13501	-0.66715	0.505382	0.618083	0.504078	0.616967
TIMM17A	0.273734	2.287139	0.023147	0.052354	0.02431	0.054434
TIMM44	-0.07098	-0.60737	0.544237	0.65253	0.547995	0.656068
TIMM8B	0.284972	2.037557	0.042802	0.087049	0.043568	0.088454
TIMP1	-0.31637	-1.48032	0.140232	0.228649	0.138755	0.226755
TIMP2	0.573594	3.089332	0.002267	0.007438	0.002221	0.007309
TIMP3	0.27829	0.972578	0.331841	0.446808	0.328834	0.443732
TINAG	-0.15862	-0.53736	0.591566	0.693529	0.589186	0.691947
TJP1	0.438799	2.486368	0.013656	0.033745	0.013545	0.033435
TJP2	-0.05876	-0.34782	0.728313	0.805049	0.728228	0.804388
TK2	0.281851	2.028202	0.043756	0.088605	0.044568	0.090212
TKT	-0.01143	-0.05662	0.954896	0.969961	0.95476	0.970033
TKTL1	2.401401	3.843578	0.000159	0.000786	0.000139	0.000704
TLE1	-0.0332	-0.14184	0.887337	0.919518	0.886816	0.919285
TLE2	-0.8355	-3.22068	0.001474	0.005148	0.001386	0.004894
TLE3	0.37339	2.239711	0.026119	0.057742	0.026092	0.057681
TLE4	-0.39646	-1.91623	0.056643	0.110772	0.055812	0.109576
TLE6	-0.45445	-3.48457	0.000596	0.002416	0.000637	0.002562
TLK1	0.163104	1.101913	0.271715	0.382468	0.272846	0.383486
TLK2	0.521891	3.97068	9.73E-05	0.000521	0.000105	0.000556
TLN1	0.384078	2.149319	0.032711	0.06944	0.032474	0.068938
TLR1	0.336395	1.469078	0.143253	0.23241	0.141474	0.230159
TLR10	-0.46273	-3.22689	0.001444	0.005058	0.00149	0.005216
TLR3	0.976789	3.199553	0.001581	0.005481	0.001471	0.005154
TLR5	0.908326	3.832709	0.000166	0.000813	0.000154	0.000768
TM4SF1	2.284794	6.941092	4.39E-11	1.37E-09	3.18E-11	1.05E-09
TM4SF4	0.596046	0.997225	0.319761	0.433981	0.315569	0.429035

TM4SF5	1.839397	5.120788	6.68E-07	6.71E-06	5.51E-07	5.61E-06
TM7SF2	-0.40184	-1.62972	0.104605	0.181485	0.102829	0.178836
TM7SF3	0.387473	1.019836	0.308937	0.42234	0.305265	0.41866
TM9SF1	0.56016	3.400547	0.0008	0.003074	0.000799	0.003086
TM9SF2	0.15692	0.938626	0.348962	0.464498	0.34889	0.464659
TMC4	0.387699	1.471416	0.142621	0.231543	0.140367	0.228876
TMCC1	1.730586	8.019214	6.46E-14	4.60E-12	4.99E-14	3.90E-12
TMED3	0.657572	2.935326	0.003689	0.011164	0.003544	0.010773
TMED5	0.249022	1.752946	0.081017	0.147991	0.082023	0.149422
TMED9	-0.13469	-1.05294	0.293533	0.406363	0.296568	0.409316
TMEM18	0.426724	2.832976	0.005044	0.014562	0.005123	0.014718
TMEM25	-0.50178	-3.26945	0.001252	0.004462	0.001271	0.004525
TMEM37	0.843561	2.825152	0.005164	0.014846	0.004879	0.014121
TMEM38A	0.481847	1.854398	0.065033	0.124351	0.063549	0.12181
TMEM38B	1.392808	6.408349	8.96E-10	1.92E-08	7.57E-10	1.65E-08
TMF1	1.32807	7.06411	2.14E-11	7.30E-10	1.89E-11	6.68E-10
TMOD3	1.295945	6.556097	3.94E-10	9.35E-09	3.45E-10	8.40E-09
TMPO	1.164283	5.247362	3.65E-07	3.86E-06	3.24E-07	3.46E-06
TMPRSS2	-0.86148	-2.69924	0.007495	0.020221	0.007092	0.019347
TMPRSS4	-0.72702	-2.07083	0.039552	0.08139	0.038128	0.078978
TNC	0.754338	2.353694	0.019477	0.045363	0.018652	0.043658
TNFAIP1	0.618033	4.316792	2.40E-05	0.000155	2.53E-05	0.000161
TNFAIP2	0.244891	1.087644	0.277953	0.389184	0.275898	0.386849
TNFAIP3	0.676289	3.04611	0.002604	0.00836	0.002497	0.00804
TNFAIP8	-0.31608	-1.53056	0.127329	0.21229	0.126062	0.210552
TNFRSF10B	-0.27698	-1.50592	0.133534	0.220377	0.132848	0.219623
TNFRSF11B	0.64042	1.277353	0.202836	0.307328	0.199072	0.302991
TNFRSF12A	1.444436	5.544767	8.47E-08	1.05E-06	7.12E-08	8.93E-07
TNFRSF14	-0.30861	-1.86675	0.063279	0.121293	0.063279	0.121442
TNFRSF19	0.277736	1.172097	0.242437	0.351684	0.24019	0.348855
TNFRSF1B	0.771363	3.827192	0.000169	0.000826	0.000161	0.000797
TNFRSF21	0.820689	3.310501	0.00109	0.003967	0.001025	0.003762
TNFSF10	0.389979	1.347278	0.179289	0.278473	0.176558	0.275049
TNFSF11	0.363019	1.262735	0.208033	0.313169	0.205195	0.309604
TNFSF13	0.122953	0.798206	0.42562	0.541383	0.426306	0.542132
TNFSF13B	0.110602	0.550932	0.582245	0.686024	0.581128	0.684987
TNIP1	-0.17044	-1.30586	0.192976	0.296111	0.195498	0.298811
TNIP2	-0.25034	-1.92384	0.055677	0.109171	0.057077	0.111359
TNK2	0.39275	3.909666	0.000123	0.000638	0.000156	0.000775
TNKS	0.108962	1.509253	0.132682	0.219734	0.1478	0.238796
TNNI2	-0.88214	-3.3073	0.001102	0.003995	0.00103	0.003776

TNNI3	0.660586	2.228861	0.026844	0.059122	0.025872	0.057358
TNNT2	0.692624	8.482683	3.36E-15	3.68E-13	1.44E-14	1.35E-12
TNNT3	0.574776	6.525103	4.69E-10	1.07E-08	1.04E-09	2.18E-08
TNPO1	0.487102	3.513413	0.000538	0.002206	0.000564	0.002301
TNPO2	-0.29885	-2.72473	0.006958	0.019001	0.007632	0.020579
TNRC6B	0.562888	3.170529	0.00174	0.005922	0.001715	0.005851
TNRC6C	0.027213	0.198182	0.843087	0.886071	0.843748	0.886567
TOB1	0.704641	2.432058	0.01582	0.038072	0.015167	0.036807
TOM1	-0.0123	-0.09471	0.92463	0.947752	0.925069	0.947444
TOMM34	0.55354	3.779424	0.000203	0.000964	0.00021	0.000985
TOMM40	0.122634	0.784211	0.433768	0.549814	0.434303	0.549897
TOMM70A	0.726386	4.475021	1.23E-05	8.71E-05	1.23E-05	8.71E-05
TOP2A	0.244743	0.814679	0.416145	0.532213	0.413107	0.529192
TOP2B	0.366596	2.320221	0.021254	0.048776	0.021363	0.048859
TOP3A	0.575063	4.253277	3.13E-05	0.000195	3.37E-05	0.000209
TOP3B	0.096123	0.793408	0.428403	0.544188	0.432125	0.548175
TOPBP1	0.991968	5.838209	1.90E-08	2.73E-07	1.83E-08	2.67E-07
TOR1A	0.110355	0.753734	0.451823	0.56667	0.453013	0.567625
TOR1B	0.392756	1.867297	0.063202	0.121245	0.062265	0.119691
TOX	0.157104	0.546462	0.585307	0.688769	0.58296	0.686694
TP53BP1	0.400056	2.373695	0.018479	0.043297	0.018433	0.043198
TP53I3	0.774327	2.740092	0.006651	0.018378	0.006321	0.017578
TP53INP1	0.297625	2.098637	0.037	0.07705	0.037628	0.078219
TPD52L2	0.402541	2.521386	0.012404	0.031011	0.012458	0.031161
TPI1	-0.27431	-1.80795	0.071993	0.13513	0.072491	0.135902
TPM1	-0.71556	-3.57462	0.000432	0.00183	0.000414	0.001756
TPM2	0.238594	1.474651	0.141749	0.230606	0.141925	0.230812
TPMT	0.347805	1.617223	0.107276	0.184959	0.105942	0.183197
TPP1	0.709224	3.99292	8.92E-05	0.00048	8.71E-05	0.000471
TPP2	0.079253	0.512732	0.608658	0.707253	0.609166	0.707457
TPR	0.13583	0.518436	0.60468	0.703987	0.602652	0.70267
TPSAB1	1.989889	4.767026	3.42E-06	2.76E-05	2.85E-06	2.35E-05
TPSG1	0.141989	1.170661	0.243013	0.352411	0.24679	0.355693
TPST2	0.198115	0.80775	0.420115	0.536123	0.417754	0.5334
TPX2	0.656889	2.988832	0.003122	0.009716	0.003	0.009389
TRA2A	1.391056	5.067889	8.57E-07	8.46E-06	7.34E-07	7.33E-06
TRAF1	0.045346	0.407168	0.684284	0.770332	0.687623	0.772425
TRAF3	-0.03757	-0.25596	0.798223	0.855369	0.798734	0.855916
TRAF4	-0.33788	-1.80137	0.073027	0.136688	0.072433	0.135872
TRAF5	-0.35176	-1.78295	0.075987	0.141105	0.075176	0.139876
TRAF6	1.093081	7.037215	2.51E-11	8.37E-10	2.55E-11	8.54E-10

TRAF7	-0.47102	-3.08625	0.00229	0.007489	0.002324	0.007591
TRAM1	0.032034	0.173672	0.862284	0.900208	0.862042	0.900155
TRAP1	-0.41306	-4.35035	2.09E-05	0.000137	2.91E-05	0.000183
TRAPPC3	0.646934	4.851381	2.33E-06	1.97E-05	2.58E-06	2.16E-05
TRAPPC4	-0.42334	-2.14111	0.033375	0.070626	0.032879	0.06964
TRAPPC6B	0.727244	4.475807	1.23E-05	8.69E-05	1.23E-05	8.71E-05
TREH	-0.13301	-0.52463	0.600376	0.700016	0.598423	0.698433
TRERF1	0.257897	1.110101	0.268178	0.37851	0.265984	0.376005
TRIB1	0.110105	0.289932	0.772144	0.836578	0.770458	0.835714
TRIB2	-0.55735	-1.67457	0.095453	0.16959	0.093131	0.166178
TRIM10	0.320886	4.700518	4.60E-06	3.63E-05	1.10E-05	7.91E-05
TRIM16	0.505	1.635225	0.103445	0.180004	0.101154	0.176803
TRIM21	0.464998	2.863668	0.004596	0.013502	0.004606	0.013481
TRIM22	-0.11654	-0.6001	0.549065	0.656977	0.548058	0.656068
TRIM23	0.192777	1.139991	0.255541	0.364448	0.255367	0.364367
TRIM26	0.515154	3.536641	0.000495	0.002059	0.000511	0.002114
TRIM28	-0.00193	-0.01212	0.990338	0.99433	0.990346	0.994345
TRIM29	-1.78467	-5.90014	1.37E-08	2.04E-07	1.10E-08	1.71E-07
TRIM3	0.011237	0.110551	0.912074	0.939903	0.913402	0.940792
TRIM31	1.706005	3.266152	0.001266	0.004508	0.00115	0.004143
TRIM32	0.079331	0.596968	0.551148	0.658296	0.553205	0.66025
TRIM37	1.004494	6.874825	6.44E-11	1.92E-09	6.91E-11	2.08E-09
TRIM38	0.378831	2.148522	0.032775	0.069545	0.032575	0.069112
TRIM46	0.31027	3.375407	0.000873	0.003307	0.001102	0.003995
TRIM5	0.556767	4.008823	8.38E-05	0.000457	8.87E-05	0.000479
TRIM54	0.481783	2.375734	0.01838	0.043086	0.018014	0.042333
TRIM56	0.925769	4.907135	1.81E-06	1.58E-05	1.71E-06	1.52E-05
TRIO	0.218097	1.776115	0.077109	0.142794	0.07935	0.145625
TRIP10	-0.21625	-1.27742	0.202813	0.307328	0.202636	0.30653
TRIP11	1.393374	12.1614	2.58E-26	7.73E-23	5.02E-26	1.50E-22
TRIP12	0.428636	3.147752	0.001875	0.006337	0.00196	0.006551
TRIP13	-0.02993	-0.11051	0.912106	0.939903	0.911593	0.93958
TRIP4	-0.33309	-1.7558	0.080527	0.147324	0.079851	0.146202
TRMT1	-0.10494	-0.64966	0.516598	0.62853	0.516813	0.628466
TROAP	0.01606	0.105293	0.91624	0.942716	0.916383	0.942863
TRPA1	1.030027	4.098126	5.88E-05	0.000336	5.35E-05	0.000308
TRPC4AP	0.028534	0.217519	0.828008	0.87689	0.828947	0.877489
TRPC6	1.196065	6.424418	8.20E-10	1.77E-08	7.43E-10	1.62E-08
TRPM4	-0.26375	-0.94882	0.343761	0.459391	0.340851	0.45641
TRPS1	-0.17628	-0.66392	0.507446	0.620124	0.505021	0.617642
TRPV6	0.091986	0.773954	0.439796	0.555657	0.443788	0.559024

TRRAP	-0.06144	-0.30329	0.761961	0.829562	0.761252	0.829173
TRUB2	0.358587	2.226693	0.026991	0.059343	0.027063	0.059546
TSC1	0.888925	6.601719	3.05E-10	7.43E-09	3.53E-10	8.55E-09
TSC2	-0.44821	-3.49583	0.000572	0.002334	0.000616	0.002489
TSM	0.177165	0.753524	0.451948	0.56667	0.449823	0.564681
TSG101	0.277116	1.741168	0.083065	0.150619	0.083295	0.151387
TSN	-0.01564	-0.08639	0.931232	0.953134	0.93113	0.953125
TSNAX	0.308974	2.644629	0.008773	0.023177	0.009403	0.024512
TSPAN1	-1.65688	-4.18075	4.21E-05	0.000253	3.66E-05	0.000225
TSPYL2	0.215755	1.510137	0.132457	0.219438	0.13369	0.220626
TSPYL4	1.028584	4.722588	4.17E-06	3.33E-05	3.80E-06	3.06E-05
TSSC1	-0.24267	-1.49043	0.137556	0.225445	0.137681	0.225549
TSSC4	0.538308	4.052597	7.05E-05	0.000393	7.62E-05	0.000419
TST	-1.54913	-5.1775	5.10E-07	5.24E-06	4.28E-07	4.49E-06
TSTA3	-0.24959	-0.96649	0.334872	0.45007	0.332214	0.447009
TTC1	-0.06643	-0.50582	0.613493	0.711253	0.615447	0.712639
TTC13	0.426692	2.20971	0.028166	0.061514	0.027772	0.06074
TTC14	0.424329	1.54632	0.123478	0.206823	0.121253	0.203825
TTC4	0.399999	3.23012	0.001429	0.005015	0.001542	0.005346
TTC7A	0.657928	4.903809	1.84E-06	1.60E-05	2.03E-06	1.75E-05
TTF2	0.033526	0.236998	0.812881	0.865551	0.813521	0.866036
TTK	1.292202	4.303497	2.54E-05	0.000163	2.24E-05	0.000146
TLL1	-0.03882	-0.34186	0.732782	0.808658	0.735459	0.811042
TTN	0.158011	1.904355	0.058181	0.113276	0.065173	0.124315
TTR	1.216848	3.131728	0.001976	0.006625	0.001823	0.006158
TUBB	-0.03437	-0.23902	0.811318	0.864551	0.811888	0.864689
TUBB4	1.030356	7.934456	1.10E-13	7.17E-12	1.38E-13	8.78E-12
TUBE1	0.326484	2.734429	0.006763	0.018533	0.007234	0.019697
TUBGCP2	0.903522	6.621097	2.74E-10	6.80E-09	3.12E-10	7.69E-09
TUBGCP3	-0.5798	-2.33682	0.020356	0.04706	0.019708	0.045833
TUFT1	0.288698	1.144919	0.253498	0.36214	0.250979	0.359853
TULP3	-0.1064	-0.74565	0.456681	0.57146	0.458148	0.57299
TUSC2	0.256654	2.235563	0.026394	0.058232	0.027903	0.060913
TXN2	0.405351	2.976135	0.003249	0.010051	0.003381	0.010393
TXNDC11	-0.25461	-1.42827	0.154646	0.247814	0.15412	0.246971
TXNDC9	0.887841	5.297121	2.87E-07	3.12E-06	2.82E-07	3.05E-06
TXNL1	-0.52576	-1.8791	0.061565	0.118636	0.059993	0.115989
TXNL4A	-0.18587	-1.18333	0.237966	0.345838	0.23846	0.346856
TXNRD2	0.169023	1.696515	0.091216	0.162947	0.096502	0.170704
TYK2	0.157944	1.232829	0.218967	0.32496	0.221839	0.328495
TYMS	-1.43892	-5.5588	7.89E-08	9.87E-07	6.64E-08	8.44E-07

TYRO3	0.279998	1.799745	0.073284	0.137061	0.073631	0.137766
TYROBP	-0.21929	-1.29038	0.198286	0.301991	0.19808	0.30197
U2AF1	-1.32019	-7.73667	3.75E-13	2.07E-11	3.46E-13	1.98E-11
U2AF2	-0.04703	-0.4435	0.657844	0.748099	0.662083	0.751822
UBA52	0.364016	3.241763	0.001374	0.004852	0.001541	0.005346
UBE2A	0.485421	3.74774	0.000229	0.001065	0.000247	0.001136
UBE2B	0.189263	0.919491	0.358855	0.474302	0.357281	0.472295
UBE2C	0.792126	3.402277	0.000795	0.003058	0.000751	0.002923
UBE2D2	0.429872	2.948248	0.003544	0.010788	0.003628	0.010996
UBE2D3	-0.06255	-0.40814	0.683575	0.769718	0.684055	0.76989
UBE2E3	1.059793	6.727414	1.50E-10	4.00E-09	1.51E-10	4.02E-09
UBE2G1	0.479398	3.055471	0.002527	0.008153	0.00255	0.008175
UBE2G2	0.273884	1.659953	0.098362	0.173536	0.09838	0.173135
UBE2J1	-0.17261	-1.07991	0.281376	0.392423	0.281714	0.393012
UBE2L3	0.351166	2.020826	0.044521	0.090076	0.044331	0.089769
UBE2L6	0.356195	1.714303	0.087894	0.157914	0.086813	0.15657
UBE2M	-0.17875	-0.97806	0.329131	0.444005	0.328334	0.443184
UBE2V2	-0.40107	-2.56795	0.010899	0.027798	0.010982	0.027977
UBE4B	-0.36777	-2.01137	0.045518	0.091817	0.04515	0.091153
UBL3	0.518971	3.385651	0.000842	0.003215	0.000856	0.003238
UBN1	0.781515	6.041567	6.52E-09	1.05E-07	7.71E-09	1.23E-07
UBOX5	0.045499	0.460561	0.645573	0.73993	0.65104	0.743594
UBP1	0.821659	5.937932	1.13E-08	1.72E-07	1.25E-08	1.88E-07
UBQLN1	0.899373	5.167856	5.34E-07	5.46E-06	5.16E-07	5.31E-06
UBQLN2	1.087124	7.422246	2.55E-12	1.09E-10	2.74E-12	1.18E-10
UBR1	0.027387	0.179902	0.857396	0.896898	0.857644	0.897157
UBTD1	0.880966	6.919635	4.97E-11	1.54E-09	6.20E-11	1.89E-09
UCHL1	0.145279	0.534987	0.593204	0.69493	0.591033	0.693423
UCHL3	-0.50512	-2.31076	0.021781	0.049791	0.021256	0.04871
UCK2	-0.05522	-0.33657	0.736766	0.811721	0.736821	0.811556
UCN	-0.00385	-0.02485	0.980199	0.98713	0.980227	0.987158
UCP2	0.108297	0.450022	0.653142	0.745089	0.651549	0.743643
UFD1L	-0.16809	-1.18966	0.235474	0.343278	0.237107	0.345155
UGCG	0.070934	0.300145	0.764352	0.831587	0.763267	0.830725
UGT1A6	0.431804	1.041368	0.298858	0.411622	0.295053	0.407636
UGT8	-0.16891	-0.35795	0.720728	0.799396	0.71852	0.79779
UHRF1	-0.85784	-3.42351	0.000738	0.002898	0.000691	0.002746
ULK1	-0.34116	-2.53768	0.011858	0.029771	0.012257	0.030724
ULK2	0.726918	4.664239	5.40E-06	4.18E-05	5.49E-06	4.26E-05
UMPS	0.226859	1.961914	0.051045	0.101229	0.053305	0.105223
UNC119	1.004711	7.346488	4.02E-12	1.66E-10	4.66E-12	1.94E-10

UNC13B	0.660482	2.58693	0.010334	0.026627	0.009923	0.02571
UNC93B1	-0.29229	-1.28968	0.198529	0.302166	0.196579	0.300204
UNG	0.225767	1.235091	0.218126	0.324227	0.217362	0.323394
UNKL	0.898171	5.523502	9.42E-08	1.16E-06	9.36E-08	1.15E-06
UPF3A	-0.57395	-3.29268	0.001158	0.00417	0.001144	0.004125
UPK1A	0.090428	0.37897	0.705079	0.786396	0.703719	0.78577
UPP1	0.605174	2.385149	0.017928	0.042237	0.017317	0.040878
UQCRB	0.594992	4.02798	7.77E-05	0.000428	8.03E-05	0.00044
UQCRC1	-0.24656	-1.40602	0.161143	0.255941	0.160722	0.255114
UQCRC2	0.065958	0.363345	0.7167	0.79671	0.716285	0.796625
UQCRCFS1	0.471544	2.077546	0.038922	0.080376	0.03807	0.078892
UROD	-0.04958	-0.3566	0.721735	0.800225	0.722783	0.80137
UROS	0.967736	6.364981	1.14E-09	2.35E-08	1.18E-09	2.41E-08
USF2	0.424284	3.877481	0.00014	0.000709	0.000166	0.000817
USP1	0.345259	2.284597	0.023299	0.052596	0.023546	0.053206
USP10	0.851459	5.330433	2.44E-07	2.70E-06	2.45E-07	2.72E-06
USP13	0.380332	2.001395	0.04659	0.093538	0.046093	0.092778
USP14	0.082664	0.428848	0.668458	0.757779	0.667704	0.756742
USP15	0.647211	3.647413	0.000331	0.001456	0.000325	0.001434
USP16	0.089213	0.548608	0.583836	0.687382	0.58398	0.68738
USP2	0.510588	4.083715	6.22E-05	0.000352	6.94E-05	0.000386
USP30	0.64968	4.596274	7.28E-06	5.41E-05	7.74E-06	5.74E-05
USP31	0.567114	2.839891	0.00494	0.014332	0.004812	0.013969
USP32	0.264598	1.525025	0.128702	0.214124	0.128384	0.21354
USP33	0.668606	3.769488	0.000211	0.000992	0.000206	0.000972
USP39	0.173816	1.154747	0.249458	0.358548	0.250392	0.359342
USP42	-0.23426	-1.49098	0.137413	0.225445	0.137817	0.225693
USP48	-0.11446	-0.44599	0.656047	0.747134	0.654292	0.746039
USP5	-0.13571	-1.02737	0.305385	0.419032	0.307961	0.421987
USP53	1.011322	5.034726	1.00E-06	9.66E-06	9.22E-07	9.03E-06
USP7	0.076023	0.589666	0.556025	0.662438	0.558418	0.665121
USP8	0.311798	2.339557	0.020211	0.046771	0.020833	0.047885
USP9X	0.30332	1.634733	0.103548	0.180117	0.102891	0.178836
USP9Y	1.668269	5.275799	3.18E-07	3.41E-06	2.63E-07	2.88E-06
UST	0.938921	3.131219	0.001979	0.006631	0.001848	0.00623
UTP14A	-0.05222	-0.38155	0.70317	0.785597	0.7044	0.786012
UTRN	0.406395	1.768825	0.078321	0.144462	0.076985	0.142453
UTY	0.436712	2.487401	0.013618	0.033686	0.013514	0.033395
UVRAG	0.238081	1.319299	0.188453	0.29038	0.187806	0.289596
UXT	-0.17237	-1.18447	0.237517	0.345505	0.23881	0.347111
VAMP2	-0.29139	-1.51629	0.130896	0.217235	0.129971	0.215701

VAMP3	0.123546	0.713614	0.476229	0.589641	0.475894	0.589225
VAMP4	0.907884	4.558501	8.58E-06	6.27E-05	8.04E-06	5.93E-05
VAMP5	0.168964	1.413593	0.158908	0.253178	0.162459	0.25709
VANGL1	0.806164	4.24857	3.19E-05	0.000199	3.05E-05	0.000191
VAPA	0.460025	1.820206	0.070099	0.132422	0.068609	0.130019
VAPB	-0.14661	-0.71477	0.475513	0.589641	0.474087	0.587763
VASP	1.148339	6.361276	1.16E-09	2.39E-08	1.07E-09	2.23E-08
VAT1	0.557388	3.675694	0.000299	0.001333	0.000305	0.001353
VAV1	-0.26094	-1.32972	0.185	0.286147	0.183823	0.284388
VAV2	-0.1269	-0.90238	0.367851	0.484014	0.369585	0.485888
VAV3	-0.79294	-1.74801	0.08187	0.149028	0.079406	0.14567
VBPI	0.331849	2.170505	0.031049	0.066332	0.03131	0.066889
VDAC1	-0.11099	-0.49586	0.620493	0.717012	0.61902	0.71607
VDAC3	-0.47744	-2.71796	0.007097	0.019323	0.007032	0.019226
VDR	0.701948	3.155822	0.001827	0.00618	0.001746	0.00595
VEGFB	0.24798	1.404209	0.16168	0.256512	0.161209	0.255715
VGLL4	0.739367	5.057462	9.00E-07	8.82E-06	9.48E-07	9.18E-06
VIL1	-0.25312	-0.80669	0.420724	0.536754	0.417585	0.533328
VIP	-1.60372	-3.17442	0.001718	0.005856	0.00157	0.005413
VIPR1	0.547124	2.241235	0.026019	0.057547	0.025269	0.056207
VIPR2	0.897412	7.12242	1.52E-11	5.59E-10	1.94E-11	6.80E-10
VKORC1L1	1.017522	5.506586	1.02E-07	1.25E-06	9.59E-08	1.17E-06
VNN1	1.112328	1.87579	0.062021	0.119417	0.059786	0.115683
VPS11	0.40666	3.773723	0.000207	0.00098	0.000246	0.001135
VPS13C	0.188224	0.945048	0.34568	0.4613	0.344299	0.459849
VPS13D	0.232317	1.480728	0.140123	0.228649	0.140542	0.229039
VPS28	0.381249	2.292052	0.022857	0.051786	0.022837	0.051827
VPS35	0.640391	2.977527	0.003234	0.010021	0.003117	0.009694
VPS41	1.641932	7.091499	1.83E-11	6.55E-10	1.45E-11	5.44E-10
VPS4A	0.309993	2.738938	0.006674	0.018418	0.007253	0.019734
VPS4B	0.351295	1.925791	0.055431	0.108734	0.055025	0.108209
VPS54	0.54006	3.063485	0.002463	0.007985	0.002433	0.007887
VRK2	0.513079	2.645057	0.008762	0.023162	0.008588	0.0227
VRK3	0.186456	1.255355	0.210694	0.31603	0.21173	0.317022
VSIG2	-0.33738	-1.04247	0.298351	0.411232	0.295013	0.407636
VSIG4	0.45067	1.590315	0.113213	0.193079	0.111	0.190401
VSNL1	-1.9275	-3.85373	0.000153	0.000764	0.000135	0.000684
VTI1B	1.020229	5.576372	7.23E-08	9.11E-07	6.78E-08	8.54E-07
WARS	-0.78893	-3.51192	0.000541	0.002215	0.000511	0.002114
WAS	0.250788	3.044355	0.002619	0.008385	0.003398	0.010431
WASF1	1.685845	5.255403	3.51E-07	3.73E-06	2.91E-07	3.14E-06

WASF2	0.093154	0.531528	0.595594	0.696168	0.595239	0.696273
WASL	0.313801	1.758641	0.080042	0.146608	0.079647	0.145943
WBP11	0.035143	0.234115	0.815116	0.867144	0.815491	0.867347
WBP2	0.181031	1.136453	0.257015	0.366005	0.257381	0.366129
WDFY1	0.445412	2.929088	0.003761	0.011338	0.003816	0.011489
WDHD1	0.310724	1.344974	0.180031	0.279441	0.178057	0.276834
WDR1	0.035715	0.263462	0.792443	0.85033	0.793379	0.85122
WDR18	0.493092	2.884356	0.004316	0.012821	0.004289	0.012701
WDR20	0.062686	0.393972	0.693987	0.777644	0.694224	0.777981
WDR26	1.003619	6.625593	2.67E-10	6.70E-09	2.77E-10	6.92E-09
WDR3	0.859685	4.595959	7.29E-06	5.41E-05	6.94E-06	5.25E-05
WDR33	-0.17498	-0.95205	0.342124	0.457593	0.341287	0.456734
WDR4	0.108947	0.78937	0.430754	0.54673	0.43265	0.548545
WDR44	0.49226	4.621823	6.51E-06	4.93E-05	8.40E-06	6.19E-05
WDR45	0.965966	6.139739	3.86E-09	6.70E-08	3.90E-09	6.85E-08
WDR5	-0.20082	-1.23643	0.217628	0.32379	0.217803	0.323743
WFS1	-0.66829	-3.12798	0.002	0.006682	0.001922	0.006448
WHSC1	-0.34189	-1.93799	0.053916	0.106205	0.053643	0.105801
WISP1	0.792841	4.005168	8.50E-05	0.000462	8.09E-05	0.000442
WISP2	1.819845	5.883426	1.50E-08	2.20E-07	1.19E-08	1.80E-07
WNK1	-0.28992	-2.03405	0.043158	0.087589	0.043827	0.088864
WNK2	-0.03261	-0.25525	0.798767	0.855562	0.800015	0.856352
WNT10B	-0.14022	-0.99226	0.322172	0.436372	0.323863	0.43803
WNT4	0.185464	1.041561	0.298769	0.411622	0.29817	0.410606
WRN	0.639508	3.591556	0.000406	0.001733	0.000398	0.001696
WT1	0.930974	2.416174	0.016508	0.039445	0.015696	0.037831
WTAP	0.04237	0.223764	0.82315	0.872926	0.822774	0.872724
WWP1	0.789025	4.522935	1.00E-05	7.24E-05	9.76E-06	7.14E-05
WWP2	0.87729	8.318579	9.66E-15	9.08E-13	1.84E-14	1.70E-12
XBP1	-0.52094	-3.64926	0.000329	0.00145	0.000343	0.001495
XK	0.390392	0.855645	0.393134	0.509297	0.389278	0.505416
XPC	0.367712	2.033409	0.043223	0.087639	0.042902	0.087176
XPNPEP1	0.437789	3.28235	0.001199	0.004298	0.001265	0.004511
XPNPEP2	1.531297	3.708019	0.000265	0.001206	0.000237	0.001099
XPO1	-0.52236	-2.66464	0.008283	0.021983	0.008107	0.021614
XPO4	-0.02037	-0.1075	0.914495	0.941539	0.91431	0.941349
XPR1	0.751616	4.145297	4.86E-05	0.000287	4.71E-05	0.000279
XRCC3	-0.67984	-5.03292	1.01E-06	9.73E-06	1.11E-06	1.06E-05
XRCC4	0.988794	3.5306	0.000506	0.002091	0.000467	0.001954
XRCC5	-0.51049	-3.84336	0.000159	0.000786	0.000171	0.000836
XRN1	0.266228	1.657387	0.09888	0.173993	0.099072	0.17407

XYLT1	-0.08246	-0.50129	0.61667	0.713528	0.616728	0.713946
YAF2	0.023532	0.188345	0.850782	0.891566	0.85182	0.892456
YARS	-0.24965	-1.83688	0.067589	0.128377	0.068817	0.130313
YEATS4	0.45036	1.662098	0.09793	0.17294	0.09597	0.169891
YES1	0.637789	3.343374	0.000974	0.003614	0.000947	0.003506
YMEIL1	0.426261	2.819326	0.005256	0.015062	0.005334	0.01522
YPEL2	-0.81092	-4.82186	2.67E-06	2.21E-05	2.63E-06	2.18E-05
YTHDF1	0.077099	0.460483	0.645628	0.73993	0.645575	0.739328
YTHDF3	0.720161	4.509658	1.06E-05	7.62E-05	1.07E-05	7.69E-05
YWHAB	0.989154	6.607663	2.95E-10	7.26E-09	3.09E-10	7.65E-09
YWHAE	0.346585	1.517733	0.13053	0.216782	0.12883	0.214034
YWHAG	0.472603	2.995233	0.003059	0.009542	0.003083	0.009608
YWHAH	-0.09439	-0.59024	0.555639	0.662146	0.555921	0.66265
YWHAQ	0.596742	4.551576	8.85E-06	6.45E-05	9.79E-06	7.14E-05
YWHAZ	0.169234	1.141064	0.255095	0.364046	0.256194	0.365103
YY1	0.304766	1.882257	0.061133	0.11795	0.061236	0.118097
ZAK	0.416499	1.346226	0.179628	0.278907	0.176728	0.275223
ZBED4	0.320587	2.172902	0.030866	0.066043	0.03126	0.066813
ZBTB11	0.06862	0.569874	0.56935	0.674914	0.572544	0.677823
ZBTB17	-0.4361	-4.49041	1.15E-05	8.20E-05	1.60E-05	0.000109
ZBTB2	1.401444	9.133152	4.67E-17	7.56E-15	4.67E-17	7.31E-15
ZBTB33	0.451009	3.949942	0.000106	0.000554	0.000123	0.000634
ZCCHC3	-0.00317	-0.02921	0.976725	0.984898	0.97701	0.985185
ZCWPW1	-0.28165	-2.49943	0.013177	0.032783	0.014164	0.034659
ZDHHC1	-0.11263	-0.81801	0.414243	0.530791	0.416193	0.531984
ZDHHC14	0.931738	6.194776	2.87E-09	5.34E-08	3.00E-09	5.46E-08
ZDHHC18	-0.09201	-0.92297	0.357044	0.47244	0.364814	0.481096
ZDHHC21	0.611463	3.764317	0.000215	0.001009	0.000215	0.001008
ZDHHC5	0.272926	2.278435	0.023669	0.053277	0.024846	0.055476
ZDHHC6	0.21005	1.239804	0.216381	0.322445	0.216195	0.32176
ZDHHC9	0.566998	3.262598	0.001281	0.004559	0.001267	0.004514
ZFP106	0.564811	3.865134	0.000146	0.000739	0.000152	0.00076
ZFP161	0.538156	5.035773	9.97E-07	9.64E-06	1.33E-06	1.24E-05
ZFP36L2	0.717759	3.02122	0.002818	0.008908	0.002687	0.008555
ZFP37	1.31864	5.311607	2.68E-07	2.93E-06	2.30E-07	2.60E-06
ZFP64	0.450299	4.693041	4.75E-06	3.75E-05	6.84E-06	5.19E-05
ZFP91	0.139393	1.158063	0.248105	0.35715	0.252021	0.360678
ZFPL1	-0.28714	-1.76242	0.0794	0.14566	0.079486	0.145761
ZFPM2	0.152666	0.622849	0.534035	0.643415	0.53196	0.640915
ZFR	0.36639	2.432602	0.015797	0.038036	0.015991	0.038404
ZFX	0.009678	0.071049	0.943424	0.962051	0.943677	0.962101

ZFYVE9	0.741698	6.109504	4.54E-09	7.65E-08	5.75E-09	9.46E-08
ZIC2	-2.29538	-4.0854	6.18E-05	0.000351	5.34E-05	0.000308
ZMPSTE24	0.524073	3.37937	0.000861	0.003273	0.000872	0.00329
ZMYND11	0.428748	2.933397	0.003711	0.011224	0.003796	0.011445
ZMYND19	0.193087	1.155191	0.249277	0.358548	0.249203	0.358072
ZNF124	0.857355	3.417822	0.000753	0.00294	0.000705	0.002787
ZNF132	-0.38922	-1.76299	0.079304	0.145597	0.078079	0.14391
ZNF134	0.156009	0.653668	0.514014	0.626197	0.511979	0.62404
ZNF135	0.320407	3.332964	0.001009	0.00372	0.001234	0.004416
ZNF140	0.328211	1.561719	0.119805	0.201749	0.118496	0.199975
ZNF142	0.518342	4.787675	3.11E-06	2.54E-05	4.02E-06	3.22E-05
ZNF148	0.819586	5.233315	3.91E-07	4.10E-06	3.96E-07	4.18E-06
ZNF165	1.077503	3.048681	0.002583	0.008309	0.0024	0.0078
ZNF174	-0.03093	-0.21338	0.83123	0.878791	0.83171	0.879037
ZNF184	0.806692	4.146518	4.84E-05	0.000286	4.61E-05	0.000274
ZNF187	0.638048	3.952825	0.000104	0.00055	0.000105	0.000553
ZNF189	1.146258	6.030735	6.91E-09	1.10E-07	6.29E-09	1.02E-07
ZNF202	0.688417	5.213282	4.30E-07	4.47E-06	4.85E-07	5.03E-06
ZNF211	0.617085	2.5873	0.010323	0.026614	0.009955	0.025764
ZNF212	0.277265	2.128189	0.034444	0.072321	0.035466	0.074184
ZNF213	0.372263	3.047119	0.002596	0.008339	0.002794	0.008854
ZNF217	0.63734	2.670361	0.008148	0.021693	0.00784	0.020997
ZNF22	0.877507	4.328901	2.28E-05	0.000148	2.14E-05	0.000141
ZNF23	0.683862	3.469738	0.000628	0.002528	0.000605	0.002453
ZNF235	0.090688	0.867918	0.386393	0.50334	0.393003	0.508987
ZNF238	-0.05974	-0.31404	0.753794	0.824297	0.753262	0.823908
ZNF24	0.147215	0.935189	0.350726	0.46603	0.351217	0.466832
ZNF250	0.111171	0.823973	0.410855	0.527025	0.413069	0.529192
ZNF263	0.559206	3.836145	0.000164	0.000805	0.00017	0.000832
ZNF264	0.307968	1.108499	0.268868	0.379255	0.265984	0.376005
ZNF271	1.168567	6.662344	2.17E-10	5.60E-09	2.02E-10	5.30E-09
ZNF3	0.300784	3.530845	0.000505	0.002091	0.000689	0.002742
ZNF300	0.790565	2.139149	0.033535	0.070871	0.032224	0.068561
ZNF317	0.289525	2.377587	0.01829	0.042918	0.019203	0.044807
ZNF318	0.053384	0.294195	0.768888	0.834205	0.768547	0.834026
ZNF32	0.716154	3.119682	0.002055	0.006831	0.00196	0.006551
ZNF324	0.666446	4.6269	6.37E-06	4.83E-05	6.71E-06	5.10E-05
ZNF330	0.048922	0.394969	0.693252	0.777077	0.695384	0.77891
ZNF347	0.828226	2.958896	0.003428	0.01049	0.003235	0.01001
ZNF350	-0.05184	-0.25559	0.798507	0.855478	0.797898	0.855216
ZNF395	0.75641	3.788111	0.000196	0.000938	0.000188	0.000902

ZNF410	0.787081	5.955677	1.03E-08	1.58E-07	1.19E-08	1.80E-07
ZNF419	0.326431	1.581037	0.115319	0.19592	0.11411	0.194458
ZNF44	-0.1049	-0.94104	0.347726	0.463109	0.353103	0.468545
ZNF451	0.180123	0.99747	0.319642	0.433945	0.318935	0.432485
ZNF467	-0.08123	-0.67138	0.502689	0.61527	0.506151	0.618404
ZNF473	0.561812	4.251342	3.15E-05	0.000197	3.44E-05	0.000213
ZNF503	-0.13289	-1.00889	0.314148	0.428218	0.316766	0.430241
ZNF511	-0.21664	-1.20549	0.229319	0.335764	0.22867	0.33565
ZNF513	-0.23184	-1.34351	0.180504	0.279989	0.180185	0.279865
ZNF532	0.450623	2.182025	0.030176	0.06491	0.029624	0.064044
ZNF542	0.206837	0.772905	0.440416	0.556081	0.437778	0.553376
ZNF559	0.298851	0.869457	0.385554	0.502664	0.382135	0.498759
ZNF561	1.300364	8.430187	4.72E-15	4.93E-13	4.74E-15	4.95E-13
ZNF577	-0.04033	-0.35849	0.720325	0.799396	0.723212	0.801415
ZNF585A	0.800904	3.353597	0.000941	0.003508	0.000887	0.00333
ZNF608	0.374621	2.00845	0.045829	0.092305	0.045395	0.091554
ZNF609	0.366578	2.672764	0.008092	0.021572	0.008354	0.022165
ZNF644	0.338249	2.060469	0.040541	0.08317	0.040565	0.083244
ZNF646	0.035156	0.305835	0.760022	0.828463	0.762336	0.830162
ZNF658	0.347127	1.208051	0.228336	0.3353	0.225434	0.332352
ZNF75A	0.38093	1.889917	0.060096	0.116331	0.059317	0.114917
ZNF76	-0.00256	-0.02038	0.983759	0.989443	0.983871	0.989556
ZNF79	0.245506	1.276622	0.203094	0.307584	0.202009	0.306074
ZNF81	0.08511	1.029141	0.304554	0.418172	0.317777	0.431164
ZNF85	0.146921	0.641266	0.522023	0.632922	0.520171	0.631285
ZNHIT2	0.100095	0.611141	0.541743	0.650535	0.541842	0.650321
ZNRD1	0.099648	0.532264	0.595085	0.696004	0.594349	0.695745
ZSCAN2	0.024642	0.18187	0.855853	0.896082	0.856513	0.896773
ZSWIM1	1.113687	12.00308	8.17E-26	9.60E-23	3.74E-25	3.51E-22
ZW10	0.35205	2.586133	0.010357	0.026671	0.01069	0.027392
ZWINT	0.56914	2.140172	0.033452	0.070725	0.032445	0.068916

non-Affymetrix platform cohorts						
genes	betahat	t.stats	p.value	adj.p.value	ebayes.p.value	adj.ebayes.p.value
AADAT	1.537316	2.556628	0.010815	0.032986	0.01073	0.032791
AAK1	2.706813	4.946053	9.85E-07	1.45E-05	9.75E-07	1.45E-05
AAMP	-0.3992	-1.09969	0.27191	0.410926	0.2742	0.413058
AARS	-0.15925	-0.48771	0.625935	0.739355	0.628323	0.740873
AATF	1.330779	2.448779	0.01462	0.041925	0.014588	0.04191
ABAT	-0.57501	-1.15464	0.248698	0.384627	0.248925	0.385104
ABCA1	-0.49511	-1.08883	0.276667	0.416373	0.277365	0.417291
ABCA3	0.039096	0.063059	0.94974	0.970598	0.949677	0.970568
ABCA4	0.228925	0.343395	0.731422	0.822413	0.730987	0.821923
ABCA5	-0.35524	-0.69476	0.487478	0.619396	0.487578	0.619523
ABCA6	1.915803	2.818438	0.004985	0.017887	0.004907	0.01763
ABCA8	-1.79515	-3.39794	0.000724	0.003651	0.000723	0.003642
ABCB10	0.311744	0.410943	0.681262	0.784594	0.680565	0.783984
ABCB6	-0.95213	-1.77779	0.075946	0.154992	0.075891	0.154879
ABCB7	0.364274	0.94706	0.343991	0.486243	0.345814	0.487348
ABCB8	-0.1299	-0.146	0.883969	0.927793	0.883636	0.92765
ABCB9	-0.57507	-0.86608	0.386793	0.526325	0.386003	0.525554
ABCC10	0.181177	0.250773	0.802076	0.869717	0.80167	0.869306
ABCC2	-1.81577	-3.01458	0.002682	0.010776	0.002654	0.010687
ABCC5	0.283447	0.348056	0.727921	0.819456	0.727243	0.818783
ABCC8	2.099701	2.127705	0.03377	0.081941	0.033207	0.080782
ABCD1	-2.64004	-2.62763	0.008819	0.028197	0.008602	0.027617
ABCE1	1.217606	3.841911	0.000135	0.000883	0.000152	0.000977
ABCF1	0.478817	1.049033	0.294587	0.436591	0.295268	0.437089
ABCF2	-0.99059	-1.31379	0.189422	0.310689	0.18841	0.309842
ABCF3	0.180158	0.207845	0.835421	0.89421	0.834965	0.893722
ABCG2	-0.72829	-1.09404	0.27438	0.413461	0.273574	0.412247
ABHD2	0.934264	1.672029	0.095042	0.183448	0.094866	0.183355
ABHD4	1.466606	2.361703	0.018511	0.050523	0.018361	0.050263
ABHD5	0.030937	0.039609	0.968418	0.979947	0.968341	0.979949
ABHD6	3.222316	4.206432	2.99E-05	0.000252	2.86E-05	0.000244
ABI2	-0.5908	-1.29475	0.195907	0.318273	0.196538	0.319077
ABI3BP	1.21537	2.517469	0.01208	0.036026	0.012147	0.036201
ABL1	0.20797	0.260647	0.794455	0.865339	0.793949	0.864788
ABLIM1	3.514073	5.645484	2.55E-08	5.93E-07	2.44E-08	5.70E-07
ABLIM3	2.563524	4.78202	2.19E-06	2.80E-05	2.17E-06	2.84E-05
ABP1	0.385985	0.473869	0.635766	0.746335	0.63489	0.745623
ABR	-0.82558	-2.47515	0.013594	0.039611	0.014205	0.04106

ABTB1	0.540585	1.108699	0.268006	0.406456	0.268336	0.406649
ABTB2	0.017776	0.020144	0.983935	0.988985	0.983889	0.988939
ACAA1	0.730199	1.6869	0.092144	0.179477	0.092812	0.180479
ACAA2	-0.27013	-0.33805	0.735442	0.82555	0.7348	0.825026
ACACA	-0.009	-0.01371	0.989068	0.992561	0.98905	0.992529
ACACB	0.051811	0.144813	0.884907	0.928362	0.885483	0.928759
ACAD8	-0.37055	-0.75128	0.452778	0.588512	0.453039	0.588688
ACAD9	2.071621	5.372262	1.12E-07	2.17E-06	1.24E-07	2.37E-06
ACADM	1.515658	3.089858	0.002096	0.008786	0.002108	0.00884
ACADS	2.24896	2.629934	0.00876	0.028085	0.008575	0.027596
ACADSB	1.527793	2.826616	0.004862	0.017536	0.004849	0.017479
ACAT2	0.683707	1.91148	0.056421	0.124263	0.057669	0.125951
ACBD3	1.066901	1.780564	0.075491	0.154265	0.075187	0.153711
ACBD5	-1.05906	-1.71134	0.087536	0.172431	0.08714	0.171795
ACCN2	-0.39229	-0.75501	0.45054	0.585926	0.450577	0.586173
ACHE	-0.40794	-0.51142	0.609246	0.725689	0.608346	0.724772
ACLY	0.012166	0.02551	0.979657	0.98607	0.979676	0.98602
ACO1	0.938402	1.86319	0.062926	0.134342	0.063021	0.134508
ACOX1	2.436241	3.866791	0.000122	0.000813	0.00012	0.000798
ACOX2	2.567578	2.740579	0.006316	0.021669	0.006158	0.021173
ACP1	-1.31407	-2.51362	0.012212	0.036372	0.012212	0.03635
ACP5	-1.72115	-2.13554	0.033122	0.080711	0.032675	0.079778
ACP6	-1.17884	-1.32093	0.187029	0.30811	0.185752	0.306327
ACSL5	1.689968	2.978214	0.003017	0.011845	0.002997	0.011828
ACTA2	0.641904	1.77024	0.077197	0.156863	0.078618	0.159201
ACTG2	0.205516	0.385292	0.700158	0.79853	0.700117	0.798677
ACTL6A	0.874724	2.036483	0.042142	0.097474	0.042584	0.098207
ACTN2	0.696677	2.302957	0.021624	0.057257	0.022789	0.059538
ACTR1A	0.469217	2.127135	0.033818	0.082007	0.037517	0.088965
ACVR1	1.739453	2.622165	0.00896	0.028533	0.008846	0.028225
ACVR1B	0.142342	0.305953	0.759747	0.839993	0.760026	0.840104
ACVRL1	1.035401	1.558195	0.119716	0.220297	0.119098	0.219375
ACYP1	-1.14672	-2.04649	0.041145	0.095672	0.041032	0.095497
ACYP2	-2.23608	-2.64602	0.008359	0.027075	0.008183	0.026666
ADA	-0.21716	-0.19312	0.846929	0.901805	0.846404	0.901246
ADAM10	0.115309	0.258808	0.795873	0.86608	0.796212	0.866249
ADAM11	1.774937	2.346345	0.019284	0.052239	0.019007	0.051637
ADAM15	-0.1533	-0.33885	0.734842	0.825074	0.73523	0.825115
ADAM17	-0.27918	-1.20065	0.230362	0.363444	0.238651	0.372769
ADAM19	1.478655	2.790417	0.005432	0.019124	0.005427	0.019105
ADAM23	-0.56518	-0.58543	0.558482	0.68267	0.557253	0.681652

ADAM8	3.408564	3.873629	0.000119	0.000795	0.000114	0.000761
ADAMTS1	-2.21344	-4.81485	1.87E-06	2.46E-05	1.92E-06	2.56E-05
ADAMTS13	0.944444	2.929271	0.003527	0.013521	0.003769	0.01424
ADAMTS18	2.419098	3.484581	0.000529	0.002797	0.000516	0.002734
ADAMTS2	2.497324	3.679911	0.000254	0.001543	0.000248	0.001505
ADAMTS8	0.742024	1.376569	0.169161	0.285877	0.169058	0.285921
ADAR	-0.82528	-1.93395	0.05359	0.118921	0.054126	0.119883
ADARB1	0.109914	0.153044	0.878415	0.924234	0.878166	0.924178
ADCY1	-1.68496	-2.27872	0.023035	0.059948	0.022734	0.059494
ADCY2	0.667208	1.431095	0.152925	0.265025	0.153404	0.265639
ADCY3	0.879304	2.245351	0.02511	0.06435	0.025618	0.065355
ADCY9	0.040789	0.066948	0.946645	0.968699	0.946584	0.968636
ADD1	-0.41421	-1.39885	0.162377	0.277013	0.166315	0.282195
ADD3	2.101542	3.696552	0.000239	0.00146	0.000236	0.001451
ADH1C	2.091846	2.109298	0.035334	0.0846	0.034751	0.083374
ADH4	1.232337	1.691218	0.091316	0.178307	0.090625	0.177253
ADH5	-1.9262	-4.86345	1.48E-06	2.05E-05	1.59E-06	2.19E-05
ADH6	1.635609	1.843196	0.065795	0.138527	0.065018	0.137465
ADK	-0.40854	-0.62913	0.529501	0.657679	0.528868	0.657066
ADM	0.632956	1.255152	0.209914	0.336377	0.210076	0.336408
ADPGK	-0.26685	-0.42025	0.674453	0.778661	0.674021	0.778163
ADRA1B	-0.88025	-1.04629	0.295848	0.437949	0.294541	0.436839
ADRA1D	-3.19687	-4.61386	4.84E-06	5.45E-05	4.64E-06	5.27E-05
ADRBK2	0.357653	0.814856	0.415479	0.553188	0.416358	0.553887
ADRM1	-0.48951	-0.97412	0.330392	0.471559	0.330582	0.471687
ADSL	2.313257	3.015545	0.002674	0.01076	0.002612	0.010547
ADSS	2.431933	3.867556	0.000122	0.000812	0.000119	0.000797
AEBP1	1.925147	2.504011	0.012545	0.037152	0.012336	0.03658
AFG3L2	0.652246	1.689946	0.091559	0.178634	0.092766	0.180479
AGA	1.17861	1.542021	0.123598	0.225946	0.122718	0.224296
AGER	1.80091	3.421772	0.000665	0.003395	0.000664	0.003396
AGGF1	0.880706	1.825149	0.068477	0.142535	0.068695	0.142925
AGL	-0.05215	-0.07347	0.941459	0.965661	0.941341	0.965515
AGMAT	0.678599	0.783751	0.433497	0.569593	0.432207	0.568375
AGPAT1	1.210203	2.554428	0.010883	0.033119	0.01096	0.033341
AGPAT2	1.213144	2.112424	0.035064	0.084039	0.034928	0.083671
AGR2	1.688568	2.325403	0.020384	0.054621	0.020118	0.054062
AGRN	0.681788	0.974236	0.330333	0.471559	0.329395	0.470312
AGT	-4.6323	-4.83722	1.68E-06	2.27E-05	1.56E-06	2.15E-05
AGXT	-3.73349	-4.36653	1.49E-05	0.000139	1.41E-05	0.000133
AHCY	0.467342	0.676847	0.498765	0.629991	0.497961	0.629144

AHR	1.121009	1.620122	0.105733	0.199897	0.105076	0.198736
AHSA1	-0.0183	-0.03481	0.972246	0.982024	0.972245	0.982028
AIM1	0.912951	1.914593	0.056021	0.123499	0.056245	0.123761
AIM2	1.267156	3.136286	0.001795	0.007705	0.001852	0.007928
AIP	1.629849	4.785581	2.15E-06	2.77E-05	2.46E-06	3.12E-05
AK2	-0.08787	-0.16978	0.865241	0.914467	0.865257	0.914278
AKAP10	1.339303	1.9702	0.049276	0.110972	0.048869	0.110214
AKAP12	1.411246	2.872016	0.004223	0.015517	0.004245	0.015601
AKAP13	-0.16222	-0.29892	0.765104	0.844724	0.765038	0.844671
AKAP6	-0.85502	-1.14502	0.252658	0.389626	0.251594	0.388466
AKAP7	0.965328	1.111756	0.26669	0.405513	0.265344	0.40386
AKAP8	-0.259	-0.31835	0.750334	0.83334	0.749709	0.833342
AKAP8L	-0.15433	-0.5348	0.592988	0.711889	0.596699	0.715247
AKAP9	2.042045	6.104703	1.85E-09	6.13E-08	2.32E-09	7.52E-08
AKR1A1	-0.03179	-0.05034	0.959869	0.976418	0.959814	0.976358
AKR1B1	0.001119	0.001403	0.998881	0.998881	0.998878	0.998878
AKR1B10	2.882037	3.19091	0.001493	0.006643	0.001445	0.006462
AKR1C3	2.454194	3.549194	0.000417	0.002296	0.000406	0.002268
AKR7A2	-0.31592	-0.88365	0.377239	0.516314	0.379651	0.51871
AKT1S1	2.578053	2.885037	0.004055	0.015029	0.003948	0.014775
AKT2	-1.96625	-2.20588	0.027772	0.069579	0.027322	0.068598
AKT3	1.243303	2.908428	0.003767	0.014222	0.003844	0.014442
ALAD	1.385783	3.505992	0.000489	0.002615	0.00051	0.00271
ALAS1	-0.37106	-0.54042	0.589109	0.707955	0.588422	0.707492
ALAS2	-0.9211	-0.93997	0.347613	0.488133	0.346088	0.487348
ALCAM	2.217444	4.294376	2.04E-05	0.000183	2.05E-05	0.000184
ALDH1A1	1.696973	1.894484	0.058643	0.127426	0.05791	0.1263
ALDH1A2	-4.82922	-5.86799	7.31E-09	2.01E-07	6.66E-09	1.85E-07
ALDH1B1	0.071914	0.170895	0.864364	0.914121	0.864691	0.914175
ALDH3A1	1.296304	1.902223	0.057622	0.125965	0.057171	0.125328
ALDH3B2	1.667763	2.183847	0.029361	0.072938	0.028983	0.072112
ALDH5A1	1.031092	1.443748	0.149334	0.26024	0.148504	0.259083
ALDH9A1	1.27843	3.122647	0.001879	0.008014	0.001934	0.008213
ALDOA	-0.66044	-1.1251	0.261	0.399056	0.260573	0.398664
ALDOB	-2.74671	-2.71433	0.006833	0.023043	0.006654	0.022563
ALDOC	-0.71048	-1.11268	0.266293	0.405173	0.265605	0.404125
ALG2	0.047835	0.056026	0.95534	0.974127	0.955217	0.974076
ALG3	0.010036	0.030069	0.976022	0.983556	0.976176	0.983711
ALG8	-2.2536	-3.54895	0.000417	0.002296	0.000409	0.002279
ALOX12P2	0.68747	0.838348	0.40217	0.5398	0.400938	0.538557
ALOX5	2.925501	4.083835	5.03E-05	0.000389	4.85E-05	0.000378

ALOX5AP	3.027994	4.397681	1.30E-05	0.000125	1.25E-05	0.000121
ALPK1	2.470084	2.684379	0.007468	0.024787	0.007291	0.024303
ALPL	3.040803	4.372718	1.45E-05	0.000136	1.39E-05	0.000132
AMACR	3.268695	3.821778	0.000146	0.000945	0.00014	0.000914
AMD1	-0.45481	-0.94342	0.34585	0.487112	0.346239	0.487369
AMFR	1.591553	2.019233	0.043909	0.100865	0.043388	0.099964
AMHR2	1.104686	1.290596	0.197342	0.320162	0.196104	0.318812
AMN	1.564151	1.490197	0.1367	0.243921	0.135397	0.242241
AMPD1	0.198009	0.276189	0.782498	0.857084	0.782062	0.856794
AMPD2	0.425817	0.763663	0.445369	0.580809	0.445138	0.580668
AMPD3	0.951269	1.607857	0.108394	0.203618	0.108058	0.203264
AMPH	-0.36031	-0.46499	0.642106	0.752218	0.641307	0.751657
AMT	-0.35133	-0.71076	0.477512	0.611812	0.477757	0.611674
ANAPC10	0.898653	1.268789	0.20501	0.330072	0.204104	0.328862
ANGPT2	1.55749	1.746166	0.081296	0.1634	0.080415	0.161995
ANGPTL4	0.903961	1.726295	0.084811	0.168475	0.084812	0.168194
ANK1	2.075675	3.697962	0.000237	0.001455	0.000235	0.001447
ANK2	1.655279	3.154282	0.00169	0.007333	0.001689	0.007355
ANK3	-2.38767	-4.27285	2.25E-05	0.000199	2.22E-05	0.000197
ANKH	0.678357	1.905534	0.05719	0.125253	0.058471	0.127171
ANKHD1	-2.11268	-3.83685	0.000138	0.000897	0.000137	0.000896
ANKRD1	-0.75243	-0.90771	0.364397	0.503577	0.363123	0.50226
ANKRD10	0.396189	0.490286	0.624111	0.737572	0.623222	0.736521
ANKRD11	-0.5198	-1.00903	0.313367	0.455842	0.313444	0.455813
ANKRD12	1.151294	1.598728	0.110409	0.20639	0.109669	0.205192
ANKRD16	1.947667	2.974864	0.003049	0.011934	0.003003	0.011839
ANKRD26	2.526295	2.660988	0.008	0.02624	0.007808	0.025754
ANKRD5	0.529326	0.713446	0.475848	0.610396	0.474871	0.60964
ANLN	1.346983	3.010877	0.002715	0.010878	0.002758	0.011042
ANP32B	-0.51477	-1.42993	0.15326	0.265317	0.155287	0.268097
ANXA1	1.628676	2.034917	0.0423	0.097743	0.04178	0.096827
ANXA10	3.392545	3.604777	0.000338	0.001946	0.000324	0.001883
ANXA11	-0.36884	-0.90275	0.367022	0.506312	0.368388	0.507154
ANXA13	-2.76148	-2.60013	0.009549	0.029961	0.00931	0.029367
ANXA4	0.388459	0.693386	0.488336	0.619817	0.488099	0.619683
ANXA5	-1.12602	-1.41517	0.157539	0.270531	0.156499	0.269234
ANXA6	-0.21488	-0.27535	0.783144	0.857319	0.78263	0.856828
ANXA7	-1.09648	-2.94825	0.00332	0.012855	0.003458	0.013331
AOAH	0.170546	0.299414	0.764728	0.844706	0.764575	0.844537
AOC2	0.891567	1.603236	0.10941	0.205025	0.109235	0.204712
AOC3	2.695033	8.735274	2.44E-17	6.73E-15	4.20E-17	1.16E-14

APIB1	0.135222	0.298967	0.765069	0.844724	0.765416	0.844671
APIG1	-0.72668	-1.7806	0.075485	0.154265	0.076321	0.155595
APIM2	1.078548	2.444429	0.014796	0.042328	0.014975	0.042709
APIS2	-2.87504	-6.62779	7.62E-11	4.07E-09	8.24E-11	4.35E-09
AP2A2	-0.36418	-0.38031	0.703848	0.800262	0.702972	0.799799
AP2B1	0.502207	0.831714	0.405902	0.543671	0.405393	0.543025
AP2S1	-0.3676	-0.94475	0.345166	0.487112	0.346898	0.487712
AP3B1	-1.60241	-2.37024	0.018093	0.049849	0.017889	0.049429
AP3B2	1.16182	1.495097	0.135417	0.242321	0.134475	0.241072
AP3D1	0.436944	0.633218	0.526834	0.655578	0.526061	0.655311
AP3M1	-2.29105	-3.05511	0.00235	0.009705	0.002296	0.009518
AP3S2	0.188969	0.188265	0.850733	0.90483	0.850257	0.904324
AP4B1	-0.71528	-0.8714	0.383888	0.522826	0.382641	0.521279
AP4E1	2.037378	4.066491	5.41E-05	0.000414	5.45E-05	0.000416
AP4M1	-0.7326	-1.03768	0.299838	0.441491	0.29888	0.44077
AP4S1	2.065954	4.420029	1.17E-05	0.000115	1.20E-05	0.000117
APBA3	-2.70782	-3.32239	0.000947	0.004523	0.000918	0.004413
APBB1	-1.56742	-1.44751	0.148279	0.259006	0.146905	0.257344
APBB1IP	1.957874	1.89732	0.058267	0.126903	0.057443	0.12575
APBB2	2.238224	3.157644	0.001671	0.007277	0.001635	0.007127
APC	-1.37633	-2.90413	0.003819	0.01433	0.003852	0.014462
APC2	-1.37637	-1.45564	0.146018	0.25598	0.144782	0.254479
APEH	0.774727	1.023101	0.306674	0.448162	0.305559	0.447171
APEX1	0.793422	2.007708	0.045124	0.102952	0.045842	0.10444
APEX2	1.627911	3.517097	0.000469	0.002539	0.000477	0.002565
API5	-0.2523	-0.32343	0.746481	0.832206	0.745886	0.831941
APLP1	-2.55341	-4.35839	1.54E-05	0.000143	1.51E-05	0.000141
APLP2	-1.27088	-2.31007	0.021224	0.056453	0.02117	0.056423
APOBEC1	2.19026	3.434155	0.000636	0.00326	0.000624	0.003209
APOBEC3B	-2.02292	-2.32655	0.020323	0.054487	0.019971	0.053758
APOBEC3C	-0.65558	-0.79854	0.424871	0.562189	0.423657	0.560582
APOBEC3F	-2.52988	-5.83168	8.99E-09	2.39E-07	9.57E-09	2.53E-07
APOC1	0.988845	1.692024	0.091162	0.178155	0.090882	0.177669
APOC2	-0.25955	-0.36031	0.718744	0.812042	0.718184	0.81132
APP	1.268996	2.526656	0.011772	0.035242	0.011804	0.035404
APPBP2	-0.7073	-1.48016	0.139357	0.246975	0.139712	0.247603
APRT	-1.55762	-3.72677	0.000212	0.001317	0.00022	0.001366
APTIX	-0.34864	-0.68861	0.491334	0.622948	0.491474	0.623126
AQP2	-1.54862	-1.75724	0.079389	0.160415	0.078531	0.159092
AQP5	4.0503	3.646083	0.000289	0.001709	0.000276	0.001649
AQP7	-0.48996	-0.48009	0.631336	0.743493	0.630222	0.742553

AQP9	0.131184	0.202133	0.839882	0.897455	0.839639	0.897394
AR	-0.83411	-1.79119	0.073769	0.151454	0.074107	0.151966
ARF1	0.392752	1.074324	0.283111	0.423423	0.285349	0.426571
ARF3	0.464812	0.945147	0.344965	0.487112	0.345257	0.4873
ARF5	0.222393	0.316426	0.751789	0.833941	0.751318	0.833419
ARFGAP3	0.422605	1.347502	0.178329	0.297954	0.181751	0.30199
ARFGEF2	1.380899	1.63231	0.103141	0.195942	0.102202	0.194632
ARFIP1	-1.04459	-1.85452	0.064156	0.136178	0.063998	0.135796
ARFRP1	2.462349	5.839956	8.57E-09	2.29E-07	9.25E-09	2.47E-07
ARHGAP1	0.108774	0.229107	0.818864	0.882244	0.819037	0.882192
ARHGAP15	-2.23263	-3.25253	0.001208	0.005573	0.001183	0.005472
ARHGAP25	0.425876	0.662573	0.507859	0.636852	0.507232	0.63607
ARHGAP26	7.077328	7.357918	6.20E-13	6.47E-11	5.24E-13	5.73E-11
ARHGAP6	1.38634	1.735063	0.083245	0.166066	0.082469	0.164727
ARHGDI A	-0.61932	-1.27251	0.203685	0.32875	0.204005	0.328815
ARHGDI B	-2.21061	-7.68577	6.27E-14	7.75E-12	1.07E-13	1.26E-11
ARHGEF1	2.635034	3.590975	0.000357	0.002029	0.000346	0.001988
ARHGEF11	3.87297	6.682975	5.37E-11	3.10E-09	5.16E-11	3.07E-09
ARHGEF16	2.308194	6.174817	1.22E-09	4.23E-08	1.42E-09	4.85E-08
ARHGEF5	0.548803	0.572768	0.567017	0.689338	0.565813	0.688409
ARHGEF6	-1.47971	-2.76496	0.005869	0.020449	0.005859	0.020377
ARHGEF7	1.71288	4.29833	2.01E-05	0.000182	2.13E-05	0.00019
ARID1A	-0.85548	-1.80164	0.072106	0.148751	0.072379	0.149138
ARID1B	-0.58625	-1.25011	0.21175	0.338282	0.212253	0.338971
ARID3A	-2.29729	-2.62148	0.008978	0.028559	0.008784	0.028074
ARID4A	0.673127	0.998749	0.31832	0.460057	0.317475	0.459436
ARID4B	0.501141	1.025867	0.305369	0.447392	0.305694	0.447171
ARIH1	-0.27085	-0.39292	0.69452	0.794626	0.69398	0.794298
ARIH2	1.593026	2.821779	0.004934	0.017731	0.004907	0.01763
ARL1	-0.15403	-0.19848	0.842734	0.898057	0.84236	0.897704
ARL2BP	1.816709	2.92754	0.003546	0.013563	0.003504	0.013472
ARL3	2.730528	3.085366	0.002127	0.008902	0.002065	0.008687
ARL4A	0.367148	0.645872	0.51861	0.647746	0.518335	0.647403
ARL6IP5	2.143252	6.54965	1.24E-10	6.09E-09	1.64E-10	7.69E-09
ARMC8	0.274741	0.704544	0.481368	0.614521	0.482928	0.615946
ARMCX3	2.099526	3.352775	0.000851	0.004147	0.000837	0.004106
ARNTL	-0.11344	-0.17213	0.863397	0.913925	0.863177	0.913541
ARPC1A	2.096877	3.438357	0.000626	0.003226	0.000617	0.003182
ARPC1B	-1.691	-3.73679	0.000204	0.001275	0.000209	0.001304
ARPC2	1.524155	2.928804	0.003532	0.01353	0.003534	0.013558
ARPC3	0.413978	0.957899	0.338501	0.480051	0.339506	0.480916

ARPC4	0.271598	0.575854	0.56493	0.68797	0.565337	0.688007
ARPC5	0.548998	1.275189	0.202738	0.327671	0.203699	0.328547
ARPC5L	1.357456	1.775169	0.076379	0.155604	0.075689	0.154535
ARRB1	-0.59547	-1.13706	0.255969	0.393593	0.255974	0.393163
ARRDC2	2.692881	3.833669	0.00014	0.000908	0.000135	0.000888
ARSA	0.01887	0.055858	0.955474	0.974127	0.955749	0.974173
ARSB	2.129328	2.436269	0.01513	0.043024	0.014844	0.042438
ARSD	5.429474	6.889342	1.42E-11	1.03E-09	1.27E-11	9.15E-10
ARSE	1.822125	2.265124	0.023862	0.061723	0.023505	0.060969
ARVCF	2.298148	7.097234	3.62E-12	3.15E-10	5.02E-12	4.29E-10
ASAH1	-1.54321	-2.65085	0.008242	0.02677	0.008187	0.026666
ASAM	-2.19702	-4.50248	8.08E-06	8.34E-05	8.18E-06	8.45E-05
ASCC3	0.082704	0.323365	0.746532	0.832206	0.749928	0.833342
ASGR1	0.022865	0.044456	0.964556	0.978505	0.964562	0.978511
ASGR2	0.741576	0.783911	0.433402	0.569593	0.431991	0.568375
ASH2L	-1.33273	-1.85848	0.063592	0.135297	0.063047	0.134508
ASL	-3.22978	-5.21086	2.59E-07	4.46E-06	2.50E-07	4.35E-06
ASMTL	1.114205	2.422219	0.015722	0.044408	0.015858	0.044711
ASNS	1.040018	1.670606	0.095323	0.183915	0.094896	0.183355
ASPA	-0.53148	-0.94136	0.346902	0.487505	0.34661	0.487598
ASXL1	0.735492	0.980566	0.327203	0.468002	0.326108	0.467147
ASXL2	1.198812	1.844378	0.065622	0.138369	0.065205	0.137675
ATAD3B	2.070343	2.541465	0.01129	0.034169	0.011079	0.033617
ATE1	2.468406	4.177852	3.38E-05	0.00028	3.32E-05	0.000275
ATF1	0.068903	0.175363	0.860853	0.913115	0.861327	0.913411
ATF2	-0.43585	-0.54782	0.584017	0.703985	0.583075	0.702845
ATF4	-0.04294	-0.10509	0.916338	0.949259	0.916576	0.94919
ATF5	1.104446	3.377802	0.000778	0.003854	0.000845	0.004127
ATF6	-1.43075	-2.2639	0.023938	0.061851	0.023743	0.06142
ATF7IP2	-2.61442	-2.75679	0.006015	0.020788	0.005862	0.020377
ATIC	-4.57952	-6.29061	6.11E-10	2.21E-08	5.60E-10	2.06E-08
ATM	-0.37971	-0.64521	0.519037	0.647935	0.518657	0.647632
ATOX1	-2.17502	-6.69249	5.06E-11	2.97E-09	6.76E-11	3.78E-09
ATP11C	-0.50542	-0.95823	0.338335	0.479981	0.338311	0.479656
ATP13A2	1.355967	2.427045	0.015517	0.043933	0.015461	0.043854
ATP1A1	2.046866	5.283777	1.78E-07	3.18E-06	1.96E-07	3.50E-06
ATP1A2	2.071678	3.024848	0.002594	0.010512	0.002547	0.010329
ATP1B1	-0.33027	-0.66621	0.505532	0.634628	0.505756	0.634896
ATP1B3	-1.08811	-3.04806	0.002405	0.009889	0.002529	0.010309
ATP2A2	0.821906	2.58223	0.010053	0.031147	0.010623	0.032589
ATP2A3	-1.51921	-3.26513	0.001157	0.005367	0.001172	0.005427

ATP2B4	-0.53251	-1.17086	0.242123	0.376315	0.242806	0.377295
ATP5B	-2.72873	-8.52285	1.27E-16	2.60E-14	2.02E-16	3.96E-14
ATP5C1	-0.33834	-0.49615	0.619973	0.734119	0.619341	0.733304
ATP5D	-0.35885	-0.62677	0.53105	0.658683	0.530758	0.658738
ATP5F1	0.310411	0.707654	0.479436	0.61349	0.480268	0.613552
ATP5G1	0.306341	0.727096	0.467451	0.603577	0.468529	0.604053
ATP5G2	-0.27231	-0.36521	0.715086	0.809661	0.714476	0.808971
ATP5H	0.58836	2.320248	0.020663	0.055306	0.022521	0.058969
ATP5I	0.324565	0.553867	0.579877	0.700083	0.579544	0.699832
ATP5J	2.96174	8.92251	5.54E-18	1.86E-15	8.65E-18	2.71E-15
ATP5J2	-0.45176	-1.37551	0.169488	0.286132	0.172392	0.290305
ATP5O	0.580435	1.269922	0.204606	0.329897	0.205237	0.330347
ATP6V0A1	-1.04931	-2.98667	0.002936	0.011595	0.003091	0.012095
ATP6V0A2	1.720545	1.870732	0.06187	0.13266	0.061093	0.131474
ATP6V0B	-1.2307	-3.85781	0.000127	0.000838	0.000142	0.000922
ATP6V0C	-0.2326	-0.7601	0.447496	0.582935	0.451342	0.586807
ATP6V0D1	-2.58928	-3.35329	0.000849	0.004147	0.000825	0.004056
ATP6V1A	-0.7835	-1.56705	0.117631	0.217237	0.117791	0.217513
ATP6V1B2	-2.30231	-3.56175	0.000398	0.002212	0.00039	0.002188
ATP6V1C1	-0.37033	-0.80362	0.421933	0.559246	0.422537	0.559573
ATP6V1F	0.576894	1.74224	0.081981	0.164171	0.084011	0.166965
ATP6V1G1	0.522085	0.980791	0.327092	0.467986	0.327029	0.468038
ATP7A	1.319479	1.966738	0.049675	0.111817	0.049282	0.110932
ATP7B	3.856927	4.766962	2.35E-06	2.99E-05	2.21E-06	2.88E-05
ATP8A1	0.569036	0.70027	0.484031	0.616851	0.482902	0.615946
ATP8A2	2.534105	3.13692	0.001791	0.007705	0.001743	0.00752
ATP8B1	1.168472	1.670364	0.095371	0.183932	0.094728	0.18322
ATP9A	1.304668	2.97599	0.003038	0.01192	0.003093	0.012095
ATP9B	2.569637	4.533366	7.01E-06	7.52E-05	6.91E-06	7.42E-05
ATPIF1	0.312771	0.880257	0.379074	0.518071	0.38154	0.51993
ATR	0.275235	0.588293	0.556557	0.681381	0.557005	0.681573
ATRN	-0.78632	-1.22866	0.219684	0.348941	0.219014	0.347993
ATXN2	-1.29727	-3.78311	0.00017	0.001083	0.000186	0.001171
ATXN2L	1.109885	2.379275	0.017659	0.049025	0.017789	0.04924
ATXN3	2.435745	6.187524	1.13E-09	3.95E-08	1.28E-09	4.39E-08
AUH	0.475045	0.985771	0.324644	0.465475	0.325037	0.466039
AURKB	-0.15138	-0.15696	0.875329	0.922226	0.874943	0.921908
AURKC	-0.60355	-1.05989	0.289621	0.432132	0.289296	0.431649
AXIN1	2.325241	3.077736	0.002181	0.009089	0.00213	0.008923
AXIN2	-0.05389	-0.05185	0.958663	0.975474	0.958526	0.975335
AXL	1.551054	2.803258	0.005223	0.018527	0.005202	0.018421

AZGP1	-0.12343	-0.14395	0.885588	0.92887	0.885273	0.928746
AZI2	-0.08584	-0.15902	0.873703	0.921232	0.873673	0.921306
B2M	-0.83056	-2.14969	0.031981	0.07849	0.032616	0.07968
B3GALT6	-0.02642	-0.03365	0.973168	0.982365	0.973103	0.982299
B4GALT1	-0.58083	-0.88598	0.375985	0.515198	0.375225	0.514011
B4GALT3	1.159445	2.658484	0.008059	0.02636	0.008182	0.026666
B4GALT4	1.171254	1.991577	0.046872	0.10627	0.046671	0.105865
B4GALT5	0.052625	0.087334	0.930435	0.958186	0.930361	0.958294
B4GALT7	-1.50724	-3.25509	0.001198	0.005535	0.001214	0.005572
BACE2	1.009484	2.236853	0.025664	0.065376	0.02589	0.065738
BACH1	1.47989	2.444409	0.014797	0.042328	0.014685	0.042138
BACH2	0.819657	0.817338	0.414061	0.551768	0.412557	0.550199
BAD	0.392891	0.674242	0.500418	0.631061	0.500058	0.630471
BAG1	0.01824	0.024182	0.980715	0.986382	0.980671	0.986337
BAG3	3.155966	6.227962	8.91E-10	3.15E-08	8.97E-10	3.17E-08
BAG4	0.619497	0.89735	0.369893	0.508779	0.368997	0.507844
BAG5	-1.32062	-2.01601	0.044246	0.101195	0.043908	0.100667
BAII	3.62915	3.754456	0.000191	0.001195	0.000182	0.00115
BAI2	1.447479	1.648384	0.099799	0.190751	0.098835	0.189441
BAIAP2	0.221581	0.290029	0.771895	0.848633	0.771375	0.84826
BAK1	0.346797	0.999578	0.317919	0.459902	0.320649	0.462867
BAMBI	-0.27291	-0.38759	0.698455	0.797161	0.69789	0.796524
BANF1	-1.7415	-3.59188	0.000355	0.002026	0.000359	0.002043
BAP1	0.06079	0.107171	0.914689	0.948358	0.914635	0.948122
BARD1	4.039238	4.092617	4.85E-05	0.000379	4.59E-05	0.000362
BASP1	-0.92441	-1.30371	0.192834	0.314612	0.191942	0.313674
BAT2	0.235123	0.587168	0.557313	0.68195	0.558553	0.682675
BAT3	-1.58775	-4.74225	2.65E-06	3.26E-05	3.05E-06	3.71E-05
BAT4	0.081033	0.095417	0.924016	0.954467	0.923808	0.954236
BATF	1.243076	2.061653	0.039672	0.09323	0.039458	0.092819
BAX	1.48712	2.426096	0.015557	0.043994	0.015433	0.043829
BAZ1A	0.641097	1.133128	0.257615	0.395166	0.257318	0.39471
BAZ2A	-0.74877	-1.71018	0.087751	0.172782	0.088356	0.173828
BAZ2B	1.538306	3.436516	0.00063	0.00324	0.000643	0.003295
BBX	-0.01448	-0.02489	0.980148	0.986234	0.980132	0.986217
BCAP29	0.606337	0.83303	0.405161	0.542832	0.404161	0.541647
BCAR1	0.858683	1.551004	0.12143	0.222763	0.121259	0.222537
BCAR3	2.527534	3.400017	0.000719	0.003628	0.000699	0.003544
BCAS1	-1.11708	-1.39436	0.163727	0.278695	0.162661	0.277498
BCAS2	1.830025	4.548364	6.55E-06	7.12E-05	6.97E-06	7.46E-05
BCAT1	-0.38991	-0.57571	0.565026	0.68797	0.564337	0.687502

BCAT2	1.968588	2.699003	0.007151	0.023974	0.007028	0.023612
BCCIP	-1.42068	-2.75166	0.006109	0.02105	0.006115	0.02104
BCKDHA	-0.60421	-1.71811	0.086293	0.17077	0.087986	0.173245
BCKDK	2.766309	8.480143	1.76E-16	3.32E-14	2.72E-16	5.11E-14
BCL10	2.484036	3.476071	0.000546	0.002875	0.000531	0.0028
BCL2	-0.7745	-1.67477	0.094503	0.182557	0.094916	0.183355
BCL2A1	-1.02388	-2.43302	0.015266	0.043326	0.015513	0.043921
BCL2L1	1.458587	2.792285	0.005401	0.019044	0.005402	0.019045
BCL2L11	-1.44612	-2.1774	0.029841	0.073856	0.029568	0.073218
BCL2L13	3.666651	4.634641	4.39E-06	5.04E-05	4.16E-06	4.79E-05
BCL2L2	1.073097	3.120403	0.001893	0.008059	0.00201	0.008481
BCL3	1.234257	2.456358	0.014319	0.041236	0.014355	0.041431
BCL6	1.94787	3.1468	0.001733	0.007499	0.001709	0.007425
BCL6B	2.566824	6.569973	1.10E-10	5.71E-09	1.26E-10	6.36E-09
BCL7A	1.806396	4.069251	5.35E-05	0.00041	5.50E-05	0.00042
BCL7B	-0.38548	-0.67925	0.49724	0.628859	0.496963	0.628559
BCL9	0.263174	0.556035	0.578395	0.698652	0.578777	0.699114
BCR	2.718231	3.916671	0.0001	0.000687	9.71E-05	0.000675
BCS1L	0.705519	0.801058	0.423416	0.560579	0.42209	0.559138
BDKRB2	2.267152	4.424492	1.15E-05	0.000113	1.15E-05	0.000114
BDNF	2.790065	8.899831	6.64E-18	1.95E-15	1.13E-17	3.33E-15
BEX2	-0.92906	-1.14485	0.252728	0.389626	0.251504	0.388455
BFSP1	0.005636	0.010702	0.991465	0.993791	0.991465	0.993791
BICD1	-3.80743	-4.83577	1.69E-06	2.27E-05	1.59E-06	2.19E-05
BICD2	0.059237	0.095338	0.924078	0.954467	0.923982	0.954236
BID	0.075488	0.13898	0.889512	0.931881	0.88948	0.931693
BIK	4.650436	6.359154	4.03E-10	1.53E-08	3.69E-10	1.45E-08
BIN1	1.282454	2.418876	0.015866	0.044707	0.015854	0.044711
BIN2	-0.66402	-1.56071	0.119121	0.219298	0.119964	0.22059
BIRC2	-0.11985	-0.29459	0.76841	0.846981	0.769066	0.847108
BIRC3	1.606502	2.537172	0.011428	0.034451	0.011313	0.034216
BIRC5	-1.31345	-2.56987	0.010415	0.032098	0.010431	0.032169
BIRC6	0.472616	1.159609	0.246671	0.382372	0.248034	0.384105
BLCAP	-1.09678	-1.35143	0.17707	0.296384	0.175954	0.294945
BLM	1.409066	2.508618	0.012384	0.036745	0.012333	0.03658
BLMH	-0.81888	-2.1386	0.032872	0.08026	0.033546	0.081355
BLOC1S1	-0.62443	-1.51865	0.129379	0.23361	0.130435	0.235153
BLVRA	-1.7291	-3.43663	0.00063	0.00324	0.000633	0.003249
BLVRB	-1.10762	-2.37543	0.017843	0.049389	0.017974	0.049606
BMP1	3.598491	6.348369	4.31E-10	1.61E-08	4.18E-10	1.59E-08
BMP2	1.948171	2.543965	0.011211	0.033972	0.011102	0.033481

BMP4	-1.38095	-1.53449	0.125438	0.22801	0.124334	0.226357
BMP7	-0.95831	-1.10892	0.267911	0.406456	0.266572	0.404941
BMPR1A	-0.63736	-1.56955	0.11705	0.216588	0.118125	0.217892
BMPR2	0.529917	0.850939	0.395144	0.533825	0.394536	0.533157
BNIP1	0.273536	0.429788	0.667505	0.773871	0.667061	0.773166
BNIP2	1.651874	2.844171	0.004605	0.0167	0.004571	0.016589
BNIP3L	-1.77946	-2.65524	0.008136	0.026501	0.008027	0.026235
BPGM	-1.32614	-1.53166	0.126135	0.228893	0.125073	0.227318
BRAF	1.613222	2.116044	0.034754	0.083508	0.034331	0.082875
BRCA1	1.104086	1.601494	0.109796	0.20543	0.109133	0.204679
BRCA2	-1.60858	-3.32625	0.000934	0.004471	0.000942	0.004496
BRD1	1.567107	2.559411	0.01073	0.032789	0.010636	0.03261
BRD2	0.604077	2.368422	0.018181	0.050001	0.019853	0.053557
BRD4	2.36883	8.192405	1.56E-15	2.44E-13	2.82E-15	4.42E-13
BRD8	-3.63589	-5.36162	1.18E-07	2.24E-06	1.12E-07	2.18E-06
BRE	1.898428	2.697532	0.007183	0.024062	0.007069	0.023714
BRF1	-1.4116	-1.78498	0.074771	0.153125	0.074051	0.151915
BRI3	-0.06715	-0.16588	0.86831	0.917092	0.8687	0.917297
BSCL2	0.886855	2.538008	0.011401	0.034416	0.011856	0.035479
BSG	-0.22809	-0.32275	0.746999	0.832206	0.746513	0.832212
BST1	1.296821	1.683609	0.092779	0.180489	0.092004	0.179427
BST2	-3.84522	-6.63545	7.26E-11	3.97E-09	6.97E-11	3.84E-09
BTAF1	-1.42252	-2.10084	0.036073	0.086143	0.035743	0.085449
BTBD6	1.019348	2.071579	0.038733	0.091526	0.038847	0.091703
BTC	1.877501	2.314251	0.020992	0.055963	0.020662	0.055357
BTD	0.896071	1.749944	0.080641	0.162457	0.080704	0.162305
BTF3	-1.66544	-5.82272	9.45E-09	2.48E-07	1.32E-08	3.32E-07
BTG1	0.424493	0.897094	0.37003	0.508818	0.370512	0.509481
BTG2	1.69606	3.445577	0.00061	0.003156	0.000614	0.003175
BTG3	1.873041	3.202331	0.001436	0.006426	0.001421	0.006375
BTK	-0.36186	-0.69577	0.486842	0.618922	0.486874	0.618964
BTN2A1	1.28359	2.725382	0.006611	0.022401	0.006667	0.022575
BTN2A2	0.245551	0.363533	0.716335	0.81049	0.715858	0.809912
BTN3A1	-0.43853	-0.88474	0.376653	0.515662	0.376904	0.516157
BTN3A2	0.549138	0.84284	0.399655	0.537909	0.398921	0.537229
BTN3A3	-0.41579	-0.561	0.575006	0.696417	0.574161	0.695557
BTNL9	-2.19487	-2.25557	0.024458	0.062919	0.024011	0.061939
BUB1	-0.65121	-1.17851	0.239064	0.373041	0.238857	0.372945
BYSL	0.356024	0.38777	0.698324	0.797161	0.697467	0.796428
C10orf10	-0.59131	-1.1824	0.237518	0.371369	0.237723	0.371805
C10orf11	1.953201	2.341151	0.019552	0.052813	0.019226	0.052083

C10orf116	3.731758	4.960119	9.19E-07	1.38E-05	8.67E-07	1.32E-05
C10orf12	1.046536	1.228386	0.219785	0.348983	0.218517	0.347675
C10orf26	-0.23927	-0.34739	0.728422	0.819823	0.727937	0.819277
C10orf58	-0.43636	-0.80364	0.421923	0.559246	0.421785	0.559023
C10orf72	0.498942	1.007807	0.313955	0.456132	0.314215	0.456238
C10orf78	0.632021	1.052434	0.293025	0.435512	0.292518	0.4348
C11orf31	2.027761	2.365093	0.018344	0.050272	0.018022	0.049679
C13orf23	-1.57258	-2.41068	0.016223	0.04555	0.016056	0.045106
C14orf102	1.587147	3.573629	0.00038	0.002131	0.000389	0.002188
C14orf106	-0.06269	-0.19235	0.847536	0.902247	0.848583	0.902798
C14orf118	0.639472	1.629609	0.103711	0.196917	0.104905	0.198652
C14orf2	-0.74275	-0.87538	0.381718	0.520173	0.380415	0.518999
C14orf45	1.291448	2.208956	0.027556	0.069222	0.02742	0.068771
C14orf79	-0.55864	-1.07922	0.280927	0.420897	0.280982	0.420846
C15orf29	0.962853	2.49748	0.012776	0.037599	0.01311	0.038512
C16orf7	-0.75467	-1.68129	0.093228	0.181138	0.093753	0.181655
C18orf1	-0.87164	-1.48917	0.136971	0.244313	0.136627	0.243699
C18orf10	-1.04201	-1.91789	0.055601	0.122803	0.055525	0.122693
C19orf10	-0.59064	-1.08499	0.278361	0.41812	0.278208	0.418028
C19orf18	0.284908	0.4454	0.656192	0.764907	0.655726	0.764363
C19orf2	1.024223	1.730475	0.084061	0.167198	0.083765	0.16675
C19orf24	3.731666	6.434428	2.54E-10	1.06E-08	2.45E-10	1.06E-08
C19orf28	-2.19839	-7.28906	9.92E-13	9.92E-11	1.52E-12	1.52E-10
C1orf35	-2.59576	-3.13644	0.001794	0.007705	0.001744	0.00752
C1orf9	0.918622	2.578084	0.010173	0.031477	0.010562	0.032468
C1QA	1.130946	2.205978	0.027765	0.069579	0.027795	0.069486
C1QB	2.551319	4.515177	7.62E-06	7.98E-05	7.52E-06	7.94E-05
C1QL1	0.270345	0.404197	0.686212	0.78827	0.685706	0.787975
C1R	2.337937	4.529088	7.15E-06	7.57E-05	7.16E-06	7.63E-05
C1RL	1.152039	2.299691	0.021809	0.057604	0.021863	0.057848
C1S	2.71398	5.618955	2.95E-08	6.62E-07	3.01E-08	6.87E-07
C2	-0.01257	-0.0175	0.986041	0.990467	0.986012	0.990438
C20orf103	0.805421	0.757818	0.448859	0.584225	0.447337	0.583052
C20orf111	1.246606	1.651245	0.099213	0.190018	0.09844	0.188767
C20orf24	-0.54336	-1.17776	0.23936	0.373379	0.239964	0.373949
C20orf3	-0.42279	-1.19671	0.231894	0.365175	0.234362	0.368201
C20orf4	-0.31323	-0.27536	0.783135	0.857319	0.782396	0.856794
C20orf7	2.425212	6.771163	3.06E-11	1.92E-09	3.78E-11	2.37E-09
C21orf2	-0.66693	-2.4952	0.012857	0.037809	0.014004	0.040579
C21orf33	0.048952	0.094703	0.924583	0.954644	0.924593	0.954654
C21orf63	0.923474	1.114198	0.265642	0.404313	0.264373	0.402511

C21orf7	0.357495	0.722442	0.470305	0.605433	0.470547	0.605412
C21orf70	-0.93952	-1.64772	0.099936	0.190935	0.099703	0.190567
C3AR1	0.974437	2.493225	0.012928	0.037929	0.013246	0.038788
C3orf1	-0.5192	-0.64606	0.518491	0.647746	0.517427	0.646956
C3orf19	0.218952	0.219024	0.826706	0.88751	0.826158	0.887124
C4BPB	-3.31923	-4.92397	1.10E-06	1.60E-05	1.05E-06	1.55E-05
C4orf14	-0.80175	-1.60317	0.109425	0.205025	0.109579	0.205187
C5	1.365407	1.715428	0.086785	0.171389	0.085996	0.169966
C5orf13	-0.38304	-0.76219	0.446245	0.581467	0.446424	0.582173
C5orf15	-0.55686	-1.42114	0.155798	0.268521	0.157237	0.270306
C6	0.798857	0.765746	0.444129	0.57991	0.44262	0.578025
C6orf1	0.673234	1.517136	0.129761	0.234027	0.130429	0.235153
C6orf108	-1.29795	-3.46813	0.000562	0.002947	0.000592	0.003076
C6orf129	1.005901	1.227418	0.220149	0.349442	0.218943	0.347993
C6orf130	0.560817	0.595177	0.551951	0.676975	0.550734	0.675755
C6orf153	0.860678	2.910494	0.003743	0.014164	0.004076	0.015072
C6orf35	-0.3787	-1.06586	0.286917	0.428642	0.289412	0.431653
C6orf64	0.654349	0.610689	0.541637	0.667811	0.540274	0.66648
C6orf89	0.831773	0.905171	0.365739	0.504987	0.364307	0.503601
C7	-0.23262	-0.32594	0.744584	0.831443	0.744082	0.830883
C7orf26	-0.78236	-0.98996	0.322595	0.464379	0.321396	0.463712
C9orf114	0.001304	0.004289	0.996579	0.997004	0.996609	0.997033
C9orf23	-0.12704	-0.19994	0.841592	0.897749	0.841372	0.897514
C9orf3	0.8901	0.960562	0.337161	0.478748	0.335706	0.476826
CA1	-1.02827	-1.1802	0.238391	0.372136	0.237065	0.371032
CA11	0.183824	0.202216	0.839817	0.897455	0.839349	0.897394
CA12	3.785289	4.303083	1.97E-05	0.000179	1.86E-05	0.000169
CA2	1.58536	1.9081	0.056857	0.12481	0.056198	0.123714
CA3	1.382176	2.754381	0.006059	0.020894	0.006079	0.020976
CA8	-2.79176	-3.43585	0.000632	0.003245	0.000611	0.003164
CA9	1.528841	1.259953	0.208178	0.334165	0.20654	0.331989
CAB39L	1.889916	3.688435	0.000246	0.001503	0.000247	0.001502
CABIN1	-1.20303	-3.30156	0.001019	0.004812	0.001075	0.005033
CABYR	1.027713	1.529972	0.126552	0.229474	0.125896	0.228461
CACNA1A	-1.37835	-2.12269	0.03419	0.082589	0.033914	0.082035
CACNA1C	1.025767	2.426592	0.015536	0.043961	0.01578	0.044544
CACNA1D	1.885035	5.522465	4.99E-08	1.06E-06	5.94E-08	1.23E-06
CACNA1H	1.240524	2.118181	0.034572	0.083241	0.034412	0.082934
CACNA1I	1.312417	1.737706	0.082777	0.165389	0.082073	0.164211
CACNA2D1	0.421332	0.450391	0.652592	0.761088	0.651605	0.760314
CACNA2D2	2.009673	3.589149	0.000359	0.00204	0.000356	0.002034

CACNA2D3	2.958395	4.807193	1.94E-06	2.52E-05	1.88E-06	2.53E-05
CACNA2D4	-2.51879	-3.54311	0.000426	0.002338	0.000415	0.002302
CACNB1	1.338983	1.982942	0.047831	0.108184	0.047439	0.107349
CACNB3	2.738062	3.927445	9.59E-05	0.000665	9.29E-05	0.000647
CACYBP	-0.97398	-1.36893	0.171536	0.288863	0.17067	0.287958
CAD	2.072974	2.859732	0.004388	0.016012	0.004305	0.015771
CALCRL	2.136649	4.076769	5.18E-05	0.0004	5.18E-05	0.000399
CALD1	0.284341	0.719706	0.471987	0.606601	0.473473	0.608344
CALM2	0.619477	1.120659	0.262883	0.401543	0.262671	0.40096
CALM3	-0.19511	-0.67962	0.497007	0.628785	0.501392	0.631274
CALR	-1.98276	-5.36597	1.15E-07	2.21E-06	1.30E-07	2.48E-06
CAMK1	-4.03745	-4.45453	1.00E-05	0.000101	9.44E-06	9.61E-05
CAMK1D	-1.66528	-2.85135	0.004504	0.016396	0.004469	0.016306
CAMK2B	-2.57032	-2.61125	0.009247	0.029229	0.009026	0.028626
CAMK2D	1.988293	3.331709	0.000916	0.004417	0.000905	0.004368
CAMKK2	2.58928	4.260808	2.37E-05	0.000208	2.31E-05	0.000204
CAMP	2.397206	2.550054	0.011019	0.033498	0.010776	0.032866
CANX	-0.8	-1.15343	0.249197	0.385271	0.248299	0.384263
CAP2	0.17409	0.294856	0.768206	0.846981	0.767997	0.846724
CAPN1	1.260811	3.730145	0.00021	0.001303	0.000229	0.001414
CAPN12	2.888242	4.032216	6.24E-05	0.000467	6.02E-05	0.000454
CAPN2	2.35244	5.460369	6.97E-08	1.43E-06	7.40E-08	1.51E-06
CAPN3	-1.21797	-1.86984	0.061995	0.132866	0.061588	0.132174
CAPN5	1.580912	3.840764	0.000136	0.000885	0.000141	0.000919
CAPN7	0.354025	1.52061	0.128886	0.232897	0.135713	0.242622
CAPN9	1.776391	2.076074	0.038314	0.090718	0.037781	0.089545
CAPNS1	0.679984	2.319671	0.020695	0.055358	0.021936	0.057921
CAPS	-0.36283	-0.69425	0.487797	0.619422	0.487811	0.619528
CAPZA3	1.291724	1.487069	0.137524	0.24484	0.136418	0.243511
CAPZB	-0.50961	-1.8489	0.064966	0.137416	0.068066	0.141973
CARD11	3.480445	6.476446	1.96E-10	8.61E-09	1.93E-10	8.82E-09
CARHSP1	0.139055	0.414553	0.678618	0.782236	0.680537	0.783984
CARS	0.031723	0.091918	0.926794	0.955709	0.927213	0.956099
CASC3	-1.2629	-1.55651	0.120117	0.220786	0.119162	0.219375
CASK	1.243465	1.598389	0.110485	0.20639	0.109625	0.205192
CASP1	-1.48924	-1.72505	0.085035	0.168706	0.084165	0.167192
CASP10	-0.22524	-0.38826	0.697964	0.797117	0.697732	0.796524
CASP2	1.969505	3.006913	0.00275	0.011	0.002707	0.010864
CASP3	-0.20156	-0.33404	0.738469	0.826996	0.738197	0.827175
CASP4	-0.41928	-1.10478	0.269699	0.407978	0.271615	0.410448
CASP7	-0.57847	-0.73828	0.460631	0.596903	0.459535	0.595483

CASP9	4.465733	6.308495	5.48E-10	2.00E-08	5.05E-10	1.87E-08
CASQ2	2.021249	3.245008	0.00124	0.005669	0.001222	0.005597
CAST	-1.05842	-2.22118	0.026713	0.067391	0.026852	0.06767
CAT	-0.25375	-0.58332	0.559895	0.683686	0.560679	0.684644
CAV2	2.743029	4.338288	1.69E-05	0.000155	1.64E-05	0.000152
CBFA2T2	-0.8698	-1.25189	0.211099	0.337701	0.210229	0.336424
CBFB	-1.00469	-3.5394	0.000432	0.002365	0.000495	0.002646
CBL	1.747521	5.364126	1.16E-07	2.22E-06	1.41E-07	2.63E-06
CBR1	-0.29855	-0.72473	0.4689	0.604283	0.470115	0.60532
CBR3	-0.43058	-0.61601	0.538123	0.664991	0.537337	0.664077
CBR4	-1.17751	-1.43772	0.151036	0.262622	0.149969	0.260997
CBS	-1.42896	-2.36791	0.018206	0.05004	0.018079	0.049739
CBX1	0.129424	0.33404	0.738466	0.826996	0.739388	0.827175
CBX3	-0.37086	-0.73505	0.462594	0.599116	0.462754	0.598993
CBX5	1.0112	3.244446	0.001242	0.005669	0.001358	0.006128
CBX6	-0.70106	-1.51758	0.129648	0.233913	0.130134	0.23488
CBX7	1.949465	3.028257	0.002566	0.010425	0.002527	0.010309
CCBL1	0.04627	0.065194	0.948041	0.969494	0.947937	0.969387
CCL11	1.065161	1.269518	0.20475	0.330015	0.203529	0.328498
CCL13	2.355339	2.90679	0.003787	0.014261	0.003697	0.014048
CCL16	0.873578	1.734731	0.083304	0.166113	0.083416	0.166309
CCL18	0.616538	0.821275	0.411817	0.549713	0.410757	0.548609
CCL19	0.799789	1.175408	0.240299	0.374348	0.239454	0.373527
CCL20	0.803186	0.756765	0.449489	0.584731	0.447969	0.583512
CCL23	-0.59531	-0.64766	0.517452	0.647357	0.5162	0.646281
CCL26	-0.81506	-1.17663	0.239811	0.373722	0.238923	0.372945
CCL5	0.819921	1.875514	0.061209	0.131691	0.061708	0.132311
CCM2	-0.12105	-0.23477	0.814465	0.87939	0.814493	0.879426
CCNA2	1.381661	2.070295	0.038853	0.091742	0.038522	0.091102
CCNB2	-0.46328	-0.55062	0.582101	0.702142	0.581079	0.700993
CCNC	0.521069	0.765173	0.44447	0.58012	0.44365	0.57921
CCND1	-2.89789	-6.74533	3.61E-11	2.23E-09	3.93E-11	2.43E-09
CCND2	-5.35873	-6.66001	6.21E-11	3.52E-09	5.54E-11	3.26E-09
CCND3	-1.9	-4.45483	1.00E-05	0.000101	1.05E-05	0.000106
CCNE2	-3.35987	-5.35262	1.24E-07	2.34E-06	1.19E-07	2.30E-06
CCNF	0.210314	0.321033	0.748297	0.832341	0.747911	0.83258
CCNG1	-1.18421	-3.01576	0.002672	0.01076	0.002763	0.011045
CCNH	0.838176	1.582386	0.11409	0.211779	0.114056	0.212135
CCNI	-1.13843	-2.52796	0.011729	0.035157	0.011859	0.035479
CCNK	-0.17267	-0.40679	0.684304	0.786941	0.684997	0.787603
CCNL1	-0.84226	-1.0454	0.296262	0.438356	0.29503	0.437078

CCNL2	0.197296	0.331082	0.740699	0.828088	0.74045	0.827825
CCNT1	-0.29875	-0.40871	0.682897	0.7859	0.682253	0.785351
CCNT2	-2.5175	-4.86906	1.44E-06	2.00E-05	1.44E-06	2.01E-05
CCR1	-0.76208	-1.78901	0.074119	0.15199	0.074774	0.153065
CCRL1	0.489195	0.857782	0.391357	0.530247	0.391034	0.529903
CCS	-2.59978	-7.20175	1.79E-12	1.72E-10	2.25E-12	2.12E-10
CCT2	1.032245	2.531749	0.011604	0.034828	0.011844	0.035479
CCT4	-2.02337	-2.72585	0.006602	0.022401	0.006482	0.022107
CCT5	-2.58395	-3.26104	0.001173	0.005432	0.00114	0.005295
CCT6A	0.518969	1.315565	0.188824	0.310306	0.190317	0.311669
CCT6B	1.57994	2.348462	0.019176	0.052019	0.018966	0.051557
CCT7	-0.96692	-1.91483	0.05599	0.123489	0.056073	0.123555
CCT8	-1.82605	-4.79315	2.07E-06	2.69E-05	2.27E-06	2.93E-05
CD14	0.92049	2.610481	0.009268	0.029255	0.009645	0.03024
CD163	2.553026	4.519389	7.48E-06	7.86E-05	7.37E-06	7.82E-05
CD19	-0.0062	-0.00622	0.99504	0.996312	0.995024	0.996296
CD1A	-2.96652	-2.91766	0.003659	0.013926	0.00355	0.013597
CD1C	-0.52102	-0.8089	0.418897	0.55632	0.418203	0.555398
CD1D	-0.22828	-0.38268	0.702095	0.799575	0.701811	0.799445
CD2	1.689904	2.144695	0.03238	0.079098	0.031954	0.07822
CD200	1.172141	1.960534	0.050397	0.113063	0.050161	0.112587
CD22	2.251531	3.616223	0.000324	0.001876	0.000318	0.001857
CD226	2.800495	3.564387	0.000394	0.002198	0.000381	0.002151
CD2AP	2.295663	4.393011	1.32E-05	0.000127	1.32E-05	0.000127
CD33	-0.30941	-0.48425	0.628384	0.741082	0.627888	0.740545
CD34	3.82754	6.824934	2.16E-11	1.41E-09	2.10E-11	1.42E-09
CD36	3.4257	4.735343	2.73E-06	3.36E-05	2.60E-06	3.24E-05
CD37	-0.26787	-0.36225	0.717293	0.810916	0.716697	0.810439
CD38	-1.09488	-1.47763	0.140033	0.247985	0.139157	0.24684
CD3D	-3.0562	-5.37648	1.09E-07	2.13E-06	1.07E-07	2.10E-06
CD3E	0.040043	0.075502	0.939841	0.964676	0.939835	0.96467
CD3G	-2.15988	-2.86485	0.004319	0.015796	0.00423	0.015569
CD4	0.899613	2.019934	0.043836	0.100846	0.044192	0.101073
CD40	1.501001	2.4643	0.014008	0.040579	0.013898	0.040345
CD44	0.506012	0.684344	0.494023	0.625969	0.493073	0.624984
CD48	0.405835	0.550502	0.582181	0.702142	0.581355	0.701147
CD5	1.562455	3.343824	0.000878	0.004259	0.00089	0.004319
CD53	-0.24473	-0.52163	0.602124	0.719914	0.602524	0.720026
CD58	2.360428	3.258047	0.001185	0.005484	0.001157	0.005368
CD59	0.976613	1.281263	0.200598	0.324659	0.199548	0.323183
CD6	0.417698	0.645643	0.518758	0.647759	0.518124	0.647311

CD68	-0.35477	-0.59031	0.555208	0.68026	0.554791	0.679749
CD79B	-2.06586	-3.41173	0.000689	0.003498	0.000679	0.003467
CD80	1.776274	3.396286	0.000728	0.003661	0.000728	0.003657
CD81	0.386706	1.188408	0.235144	0.368885	0.238426	0.37254
CD83	-0.86374	-1.54458	0.122977	0.224987	0.122776	0.224296
CD86	0.769299	1.874802	0.061307	0.131812	0.062028	0.132938
CD8A	1.474794	2.535014	0.011498	0.034575	0.011428	0.034475
CD9	0.205244	0.25196	0.801159	0.869618	0.800654	0.869306
CD97	1.992348	3.525964	0.000454	0.002468	0.00045	0.002453
CD99	-0.2388	-0.70446	0.481418	0.614521	0.484097	0.616733
CD99L2	-0.79761	-2.53295	0.011565	0.034754	0.01222	0.03635
CDA	-0.26234	-0.31088	0.755999	0.836637	0.755356	0.836122
CDC14A	-1.13356	-1.33878	0.18115	0.301275	0.179959	0.299932
CDC16	-0.4118	-1.03371	0.301691	0.442971	0.303251	0.444954
CDC23	0.803767	1.330387	0.183898	0.304767	0.183419	0.303974
CDC25C	-0.7615	-0.98902	0.323052	0.464387	0.321903	0.4639
CDC34	0.453472	0.917003	0.359511	0.499468	0.359775	0.500107
CDC37	-0.64759	-2.66328	0.007947	0.026101	0.00898	0.028557
CDC37L1	0.185932	0.462991	0.643539	0.753334	0.644569	0.753789
CDC40	0.823245	1.633793	0.102829	0.195587	0.102952	0.195585
CDC42	1.529451	3.028196	0.002566	0.010425	0.002574	0.010421
CDC42BPA	0.38783	0.749173	0.454047	0.589672	0.4541	0.589838
CDC42BPB	-0.38262	-0.42465	0.671242	0.77648	0.670335	0.775903
CDC42EP1	0.998351	2.447972	0.014653	0.041992	0.014937	0.042624
CDC42EP3	-1.66062	-2.13315	0.033319	0.081138	0.032893	0.080226
CDC5L	-0.29661	-0.7017	0.483141	0.616385	0.484181	0.616733
CDC6	-0.28034	-0.33186	0.740108	0.827822	0.739426	0.827175
CDCA3	-0.41817	-0.79802	0.425174	0.562431	0.425177	0.562436
CDCA4	-0.19454	-0.31742	0.751036	0.833696	0.750751	0.833419
CDH1	1.995509	2.452225	0.014482	0.041631	0.014229	0.041104
CDH13	2.114353	2.995189	0.002856	0.011348	0.002801	0.011176
CDH15	2.263802	2.191497	0.028801	0.071773	0.028278	0.070581
CDH16	0.9512	0.968637	0.333118	0.474441	0.331587	0.472833
CDH17	-0.98191	-0.96652	0.334173	0.475367	0.332602	0.473993
CDH3	2.264325	2.878235	0.004142	0.015292	0.00405	0.015012
CDK2	-2.52658	-5.31659	1.50E-07	2.76E-06	1.53E-07	2.81E-06
CDK3	0.30032	0.317495	0.750979	0.833696	0.750239	0.833402
CDK4	1.879096	3.281205	0.001094	0.0051	0.001084	0.005072
CDK5	-0.43259	-0.56062	0.575263	0.696417	0.574353	0.695557
CDK5RAP1	-0.46479	-0.68937	0.490859	0.622682	0.490101	0.621721
CDK6	0.41967	0.636018	0.525008	0.653999	0.524333	0.65365

CDKL5	1.333052	1.571254	0.116653	0.215938	0.115653	0.214586
CDKN1A	1.595126	2.71647	0.006789	0.022923	0.006739	0.022769
CDKN1B	0.57115	0.986459	0.324307	0.465134	0.323923	0.46515
CDKN1C	1.080244	1.310701	0.190462	0.312015	0.189294	0.310752
CDKN2A	-2.271	-2.42065	0.01579	0.044545	0.015473	0.043862
CDKN2C	2.961014	4.895011	1.27E-06	1.80E-05	1.23E-06	1.77E-05
CDKN2D	-2.14991	-2.46366	0.014033	0.040588	0.013763	0.040028
CDKN3	1.422136	2.791698	0.005411	0.019063	0.005422	0.019102
CDO1	-0.02062	-0.04221	0.966347	0.979899	0.966369	0.979922
CDR2	-0.90795	-1.30917	0.190981	0.312262	0.19014	0.311488
CDS1	0.898986	2.652654	0.008198	0.026684	0.008594	0.027608
CDS2	-5.15978	-4.84923	1.58E-06	2.15E-05	1.46E-06	2.03E-05
CDX1	-3.25665	-3.28936	0.001063	0.004997	0.001024	0.004844
CDX2	-0.51831	-0.67362	0.500814	0.631182	0.499798	0.630468
CDYL	2.009122	1.983951	0.047718	0.108032	0.046999	0.106456
CEACAM1	-1.56743	-1.86313	0.062934	0.134342	0.062222	0.13318
CEACAM5	3.084201	3.216816	0.001366	0.006168	0.00132	0.005981
CEACAM7	-0.16513	-0.1537	0.877902	0.924073	0.877492	0.923883
CEBPG	-0.45644	-0.96782	0.333525	0.474877	0.334029	0.475306
CECR6	1.106169	1.694918	0.090612	0.1773	0.090105	0.176456
CELSR2	-1.57786	-2.66045	0.008013	0.026263	0.007951	0.026047
CELSR3	-0.16704	-0.31892	0.749896	0.833218	0.749899	0.833342
CENPA	-1.16727	-3.27844	0.001104	0.005144	0.00117	0.005424
CENPB	0.950009	3.008465	0.002736	0.010954	0.002947	0.01167
CENPF	1.773531	1.883187	0.06016	0.129882	0.059379	0.128507
CEPT1	1.956974	7.184978	2.01E-12	1.85E-10	3.51E-12	3.11E-10
CERK	0.148226	0.223812	0.82298	0.88452	0.822693	0.884212
CETN2	-1.1887	-2.03334	0.04246	0.098064	0.042279	0.097648
CETP	-2.95381	-6.72145	4.20E-11	2.53E-09	4.52E-11	2.73E-09
CFDP1	-0.65969	-1.90199	0.057653	0.125974	0.059069	0.128055
CFH	2.551512	4.377403	1.42E-05	0.000134	1.39E-05	0.000132
CFLAR	0.776309	2.693427	0.007271	0.024287	0.007874	0.025862
CGGBP1	1.379614	2.56385	0.010595	0.032504	0.010576	0.032468
CGNL1	2.307618	2.956995	0.003229	0.012532	0.003155	0.012305
CH25H	2.283574	2.879814	0.004122	0.015229	0.004029	0.014976
CHAD	1.22305	1.971441	0.049134	0.110766	0.048847	0.110214
CHAF1A	0.725759	2.475389	0.013585	0.039609	0.014502	0.041714
CHAF1B	2.765643	4.40191	1.27E-05	0.000123	1.24E-05	0.000121
CHCHD1	0.862656	1.105519	0.269379	0.407625	0.268217	0.406649
CHCHD5	-2.02731	-2.09015	0.037026	0.088156	0.036435	0.086927
CHD2	0.768688	1.105981	0.26918	0.407454	0.268267	0.406649

CHD3	0.515458	1.813406	0.07027	0.145751	0.073245	0.150393
CHD4	0.228485	0.54452	0.586287	0.705639	0.587214	0.706369
CHD6	1.137625	2.692691	0.007286	0.024323	0.007425	0.024696
CHD7	-0.73722	-1.23227	0.218333	0.347499	0.21786	0.346747
CHEK1	-2.11399	-5.06758	5.38E-07	8.51E-06	5.73E-07	9.03E-06
CHFR	0.611866	0.773271	0.439668	0.575289	0.438532	0.574122
CHGA	-0.0422	-0.0394	0.968588	0.979947	0.968482	0.979949
CHKA	1.10453	2.185664	0.029227	0.072643	0.02928	0.072753
CHN1	1.02879	1.579698	0.114705	0.212752	0.11414	0.212149
CHN2	1.77783	2.606708	0.00937	0.029516	0.009241	0.02917
CHODL	-0.12105	-0.35112	0.725621	0.817454	0.727138	0.818783
CHORDC1	-0.3239	-0.95419	0.340372	0.481852	0.34331	0.485865
CHP	2.032077	6.428601	2.63E-10	1.09E-08	3.54E-10	1.42E-08
CHPT1	-0.60371	-1.14438	0.252925	0.389626	0.2529	0.389618
CHRD2	-0.87265	-0.96273	0.336072	0.477491	0.334648	0.475755
CHRNA10	0.34879	0.742157	0.458284	0.594517	0.45877	0.594819
CHST10	2.116995	2.181342	0.029547	0.073321	0.029039	0.072213
CHST13	4.32742	4.660177	3.90E-06	4.57E-05	3.64E-06	4.32E-05
CIB1	0.120659	0.407444	0.683827	0.786586	0.686614	0.788825
CIB2	0.754773	1.514768	0.13036	0.234747	0.13054	0.235169
CILP	-1.33832	-1.83586	0.066874	0.140254	0.066292	0.139281
CIRBP	-2.50911	-6.56482	1.13E-10	5.71E-09	1.32E-10	6.59E-09
CIT	-0.33407	-0.82386	0.410348	0.548064	0.411734	0.549692
CITED2	-2.82845	-4.53147	7.08E-06	7.54E-05	6.88E-06	7.40E-05
CIZ1	-0.05694	-0.09259	0.92626	0.955709	0.926172	0.955655
CKAP2	0.110729	0.254768	0.79899	0.868266	0.799386	0.868739
CKAP4	2.130504	4.786164	2.14E-06	2.77E-05	2.23E-06	2.89E-05
CKB	1.869767	2.447267	0.014681	0.042048	0.014449	0.041613
CKLF	1.307297	2.10332	0.035855	0.085673	0.035618	0.085193
CKS1B	-2.92964	-4.0595	5.57E-05	0.000425	5.37E-05	0.000412
CKS2	1.88464	2.135579	0.033119	0.080711	0.032618	0.07968
CLASP1	1.706566	2.14695	0.032199	0.078738	0.031769	0.077848
CLCN2	0.969096	2.494323	0.012889	0.037837	0.013214	0.038744
CLCN3	3.053642	6.261659	7.28E-10	2.61E-08	7.43E-10	2.69E-08
CLCN4	-0.56531	-0.59915	0.549301	0.67443	0.548078	0.673173
CLCN5	2.172997	2.372221	0.017997	0.049669	0.017656	0.04893
CLCN6	-2.30775	-4.97714	8.45E-07	1.29E-05	8.69E-07	1.32E-05
CLCN7	1.299377	4.547872	6.56E-06	7.12E-05	8.12E-06	8.42E-05
CLDN1	0.185345	0.182525	0.855233	0.908588	0.854767	0.908299
CLDN2	0.188359	0.169189	0.865705	0.914751	0.865246	0.914278
CLDN3	-1.31588	-1.79419	0.073289	0.150681	0.072667	0.149612

CLDN4	1.514834	2.997698	0.002833	0.011266	0.002842	0.011319
CLDN7	-1.73695	-1.5363	0.124993	0.227652	0.123683	0.225576
CLIC1	-1.2838	-4.81631	1.86E-06	2.45E-05	2.47E-06	3.12E-05
CLIC2	0.429938	0.912282	0.361988	0.501336	0.362492	0.501667
CLK2	0.933608	1.944484	0.052306	0.116787	0.052503	0.117038
CLN3	0.794193	1.422017	0.155543	0.268275	0.155325	0.268097
CLN5	1.404467	1.583305	0.113881	0.211473	0.112841	0.210123
CLNS1A	-3.19556	-4.37911	1.41E-05	0.000133	1.35E-05	0.000129
CLOCK	0.036426	0.084538	0.932657	0.960239	0.9328	0.960386
CLPP	-0.87917	-1.14296	0.253511	0.3904	0.252386	0.38905
CLPX	-0.91518	-1.64909	0.099654	0.190628	0.099492	0.19024
CLSPN	-0.56964	-1.29565	0.195595	0.317875	0.196426	0.319077
CLSTN1	1.708857	3.380804	0.00077	0.003821	0.000773	0.003847
CLSTN2	1.848543	2.201605	0.028074	0.070258	0.027651	0.069239
CLTA	0.124401	0.225018	0.822042	0.883916	0.821965	0.883776
CLTB	0.428328	1.038879	0.299281	0.441085	0.300595	0.442274
CLTC	-0.48613	-1.63327	0.102939	0.195686	0.106126	0.200237
CMAS	0.481354	0.825522	0.409405	0.547506	0.409009	0.546741
CMIP	-0.75999	-1.1333	0.257542	0.395166	0.256724	0.394057
CNDP2	-1.71091	-3.32853	0.000927	0.004458	0.000928	0.004438
CNGB1	-0.29964	-0.71435	0.475287	0.610007	0.476382	0.610748
CNIH	-0.34258	-0.67082	0.502595	0.63228	0.502699	0.632579
CNKSR1	0.452829	0.559938	0.575731	0.696417	0.574751	0.695681
CNN1	0.746984	1.111534	0.266785	0.405527	0.265957	0.404269
CNN2	1.054041	2.427546	0.015496	0.043899	0.015702	0.044351
CNN3	-0.02117	-0.03488	0.972187	0.982024	0.972156	0.982028
CNNM4	0.18014	0.2015	0.840376	0.8975	0.839919	0.897394
CNOT1	-0.2744	-0.7094	0.478353	0.612438	0.479975	0.613552
CNOT3	1.838935	4.208439	2.97E-05	0.000251	3.07E-05	0.000258
CNOT6L	0.435311	0.50555	0.613359	0.72945	0.61237	0.728458
CNOT8	-2.17066	-4.53008	7.12E-06	7.55E-05	7.24E-06	7.70E-05
CNP	-0.83771	-1.4162	0.157238	0.270208	0.156844	0.269729
CNTFR	1.798369	2.624624	0.008896	0.028386	0.008771	0.028062
CNTN4	1.56403	3.407533	0.0007	0.003547	0.000711	0.003596
CNTNAP1	-1.39572	-2.86617	0.004301	0.015743	0.004327	0.015839
COASY	-0.81836	-1.83169	0.067495	0.141304	0.067949	0.141875
COBL	1.606612	3.43146	0.000642	0.003282	0.00065	0.00333
COBL1	0.541641	0.943497	0.345808	0.487112	0.345455	0.487348
COG2	-0.7016	-1.77206	0.076893	0.156449	0.077873	0.15797
COG5	-0.48227	-1.22952	0.21936	0.348729	0.220957	0.350725
COL11A2	0.703529	1.506694	0.132417	0.237724	0.132861	0.238794

COL13A1	2.148152	3.379498	0.000773	0.003835	0.00076	0.003788
COL15A1	1.767984	3.337525	0.000898	0.004337	0.000896	0.004341
COL16A1	0.105208	0.240442	0.81007	0.875852	0.810429	0.87624
COL18A1	1.859281	4.621748	4.66E-06	5.31E-05	4.98E-06	5.61E-05
COL1A2	3.455435	6.134586	1.55E-09	5.22E-08	1.51E-09	5.08E-08
COL4A1	1.979297	3.954242	8.60E-05	0.00061	8.65E-05	0.000611
COL4A2	0.852189	2.121989	0.034249	0.082676	0.034806	0.083463
COL4A3	2.521011	3.391424	0.000741	0.003706	0.000721	0.003636
COL4A3BP	1.318782	3.177499	0.001562	0.006868	0.001606	0.007038
COL4A4	1.391104	2.166317	0.030681	0.075498	0.030435	0.07493
COL4A5	-1.10185	-1.58344	0.113849	0.211473	0.113158	0.21063
COL4A6	0.261825	0.428124	0.668715	0.77451	0.668351	0.774279
COL5A3	2.786185	3.992218	7.36E-05	0.000538	7.12E-05	0.000524
COL6A1	0.92415	2.381492	0.017555	0.048763	0.017965	0.049606
COL6A2	0.086602	0.167757	0.866831	0.915735	0.86685	0.915755
COL7A1	2.254711	2.369996	0.018105	0.049849	0.01775	0.049161
COL8A1	0.831317	1.446611	0.14853	0.259224	0.148228	0.258735
COL9A1	0.141691	0.259726	0.795164	0.865711	0.795098	0.865438
COL9A2	-1.07584	-1.05675	0.291054	0.433582	0.289483	0.431653
COL9A3	0.871754	1.397323	0.162835	0.277693	0.162288	0.277063
COLEC10	-0.73765	-1.36485	0.172814	0.290808	0.172701	0.290722
COMMD10	-0.93789	-1.8263	0.068304	0.1423	0.068354	0.14234
COMMD3	-4.05961	-4.22066	2.81E-05	0.00024	2.66E-05	0.000228
COMP	1.581175	1.481108	0.139105	0.246807	0.137778	0.244985
COMT	-0.49488	-0.95947	0.337708	0.479381	0.33778	0.479216
COPB2	2.592315	8.265353	9.02E-16	1.46E-13	1.45E-15	2.34E-13
COPG2	1.356932	1.860852	0.063256	0.13487	0.062692	0.134045
COPS3	1.672053	2.00181	0.045756	0.104244	0.045176	0.103065
COPS4	-0.03096	-0.04491	0.964192	0.978347	0.964125	0.978279
COPS5	1.086966	2.241538	0.025357	0.064842	0.025464	0.065116
COPS6	-0.81506	-0.86319	0.38838	0.527568	0.386926	0.526049
COPS7A	0.102444	0.336234	0.736812	0.826496	0.738983	0.827175
COPS8	-0.56484	-1.64294	0.100921	0.192348	0.102911	0.195585
COPZ1	0.252951	0.292998	0.769625	0.847627	0.768999	0.847108
COPZ2	-1.79761	-2.71053	0.00691	0.023238	0.006817	0.023003
COQ7	-1.79901	-2.0173	0.04411	0.101081	0.043499	0.100119
CORO1A	-3.60653	-4.91153	1.17E-06	1.69E-05	1.11E-06	1.62E-05
CORO1C	-1.99809	-4.58782	5.46E-06	6.05E-05	5.69E-06	6.30E-05
CORO2A	0.582916	0.852998	0.394002	0.532895	0.393141	0.531578
COX11	1.014208	2.059577	0.039871	0.093464	0.039986	0.093827
COX15	0.3803	0.62303	0.533502	0.660727	0.533029	0.660315

COX17	-3.89647	-4.43086	1.12E-05	0.000111	1.05E-05	0.000106
COX5A	-0.61724	-1.31157	0.190168	0.311641	0.190638	0.311978
COX5B	0.215174	0.72123	0.47105	0.605966	0.475098	0.609766
COX6A1	1.297836	4.177251	3.39E-05	0.000281	3.91E-05	0.000317
COX6B1	-0.60797	-1.50502	0.132847	0.238404	0.134015	0.240501
COX6C	0.041011	0.120228	0.904343	0.942232	0.904911	0.942825
COX7A1	-0.95673	-1.3453	0.179038	0.298714	0.17816	0.297672
COX7A2	-0.38927	-1.10909	0.267838	0.406456	0.270428	0.40908
COX7C	1.685338	3.549829	0.000416	0.002294	0.000421	0.002322
COX8A	0.233832	0.371388	0.71048	0.805222	0.710106	0.805186
CP	-3.94752	-3.77096	0.000179	0.001131	0.00017	0.001082
CPA3	2.10776	2.562225	0.010644	0.032613	0.01044	0.032175
CPD	-0.03396	-0.05255	0.95811	0.975293	0.958047	0.975335
CPM	-1.40067	-2.08289	0.037686	0.089276	0.037354	0.088623
CPNE3	0.52961	0.790523	0.429536	0.566447	0.428745	0.565563
CPNE6	0.200213	0.212407	0.831862	0.891416	0.831355	0.891076
CPNE8	-0.58758	-1.32469	0.185779	0.307019	0.186549	0.307211
CPS1	-2.83962	-2.24039	0.025432	0.064997	0.024896	0.063766
CPSF1	0.730985	2.222571	0.026618	0.067224	0.027651	0.069239
CPSF2	0.009589	0.022126	0.982355	0.987819	0.982391	0.987855
CPSF4	0.644831	1.922475	0.055021	0.121636	0.056567	0.124277
CPSF6	0.862515	1.643179	0.100872	0.192331	0.100866	0.192399
CPT1A	1.023687	2.291567	0.022277	0.058363	0.022498	0.058942
CPVL	1.077048	1.454791	0.146252	0.256295	0.145362	0.255117
CRABP2	0.118144	0.138734	0.889707	0.931881	0.889405	0.931693
CRADD	-0.23094	-0.40305	0.687057	0.788949	0.686845	0.788898
CREB3L4	-1.27447	-1.79675	0.072881	0.149973	0.072306	0.149116
CREB5	0.859766	1.468394	0.142523	0.251259	0.142172	0.251018
CREBBP	-0.94833	-2.41352	0.016099	0.045281	0.016463	0.046112
CREG1	-2.97235	-5.28429	1.77E-07	3.18E-06	1.74E-07	3.12E-06
CRELD1	-0.20554	-0.31686	0.751458	0.833941	0.75109	0.833419
CRHBP	2.875827	6.681965	5.41E-11	3.10E-09	5.88E-11	3.37E-09
CRHR1	1.640822	5.475378	6.43E-08	1.33E-06	8.35E-08	1.68E-06
CRIP1	0.504332	0.88302	0.377581	0.516631	0.37725	0.516179
CRIP2	0.288073	0.396416	0.691939	0.793419	0.691319	0.792875
CRIPT	0.086137	0.114873	0.908584	0.944767	0.908378	0.944685
CRISP1	1.653962	4.504377	8.01E-06	8.32E-05	8.78E-06	8.99E-05
CRTAP	-2.91265	-5.74871	1.43E-08	3.55E-07	1.44E-08	3.55E-07
CRY1	0.211813	0.505002	0.613743	0.729538	0.614623	0.730584
CRYAB	-0.20325	-0.2649	0.791176	0.862767	0.790694	0.862442
CRYBA4	4.188891	4.825875	1.77E-06	2.36E-05	1.66E-06	2.25E-05

CRYBB1	-0.46948	-0.5594	0.5761	0.696417	0.575069	0.695887
CRYM	2.311419	4.028885	6.33E-05	0.000471	6.24E-05	0.00047
CRYZL1	0.158624	0.171669	0.863756	0.913925	0.86335	0.913541
CS	0.046644	0.120706	0.903964	0.942047	0.904318	0.942416
CSAD	3.66564	4.623358	4.63E-06	5.28E-05	4.38E-06	5.01E-05
CSDA	-3.785	-6.0253	2.95E-09	9.37E-08	2.80E-09	8.96E-08
CSE1L	0.958239	1.61853	0.106076	0.200303	0.105741	0.199753
CSF1R	2.177719	5.591882	3.42E-08	7.47E-07	3.80E-08	8.31E-07
CSF2	1.912031	2.800868	0.005261	0.018635	0.005179	0.018371
CSF2RB	1.855911	2.299725	0.021807	0.057604	0.021471	0.057014
CSF3R	0.655151	1.376574	0.169159	0.285877	0.16956	0.286494
CSNK1A1	1.196938	2.010978	0.044776	0.102209	0.044563	0.101821
CSNK1G3	0.320701	0.424834	0.67111	0.77648	0.670401	0.775903
CSNK2A1	0.695985	1.022935	0.306752	0.448162	0.305883	0.447309
CSNK2A2	0.112905	0.152344	0.878967	0.924607	0.878702	0.924377
CSNK2B	-0.46817	-1.11559	0.265045	0.403797	0.266227	0.404547
CSPG4	-3.75249	-9.12821	1.06E-18	4.15E-16	1.27E-18	5.44E-16
CSPG5	-1.67084	-2.25839	0.024281	0.062527	0.023968	0.061877
CSRP1	-0.14026	-0.4052	0.685475	0.787902	0.687166	0.789074
CSRP2	0.805393	2.017893	0.044049	0.101034	0.044724	0.102139
CSRP2BP	1.133398	2.284715	0.022679	0.059219	0.022747	0.059494
CST3	-0.04898	-0.1082	0.913873	0.948168	0.914003	0.948122
CST7	3.042408	4.126908	4.20E-05	0.000338	4.04E-05	0.000326
CSTA	2.864595	3.850883	0.00013	0.000855	0.000126	0.000833
CSTF1	0.447306	0.991986	0.321606	0.463665	0.322358	0.464037
CSTF2	0.341036	0.49791	0.61873	0.733611	0.618088	0.733065
CSTF3	-0.85267	-1.77419	0.07654	0.155799	0.076785	0.15623
CTBP1	-1.12775	-2.33362	0.019946	0.053692	0.020041	0.053916
CTDP1	0.072361	0.110957	0.911688	0.946737	0.91155	0.946568
CTDSP2	-2.45085	-5.25506	2.06E-07	3.64E-06	2.12E-07	3.75E-06
CTDSPL	-0.90472	-1.43152	0.152804	0.264913	0.152238	0.264149
CTF1	2.639378	3.497543	0.000504	0.002685	0.000489	0.002623
CTGF	1.941409	3.91018	0.000103	0.000702	0.000104	0.000707
CTH	3.163902	5.987053	3.69E-09	1.16E-07	3.66E-09	1.15E-07
CTNNA1	-2.42399	-3.45543	0.000588	0.003069	0.000574	0.003003
CTNNAL1	-0.35361	-0.61099	0.541441	0.667811	0.541121	0.667175
CTNNB1	-0.54723	-1.58368	0.113796	0.211473	0.115867	0.214654
CTNND1	0.214146	0.626615	0.531151	0.658683	0.53359	0.660836
CTNS	0.154428	0.292528	0.769985	0.847627	0.769972	0.847706
CTRL	3.785804	4.951976	9.57E-07	1.42E-05	9.02E-07	1.36E-05
CTSC	-1.73956	-2.086	0.037402	0.088738	0.036894	0.08776

CTSD	0.38637	0.77941	0.436046	0.571824	0.436288	0.571662
CTSE	3.03505	3.502725	0.000495	0.00264	0.000477	0.002565
CTSF	-1.7931	-2.74157	0.006298	0.02162	0.006215	0.02132
CTSG	-0.71707	-1.17726	0.239558	0.373565	0.23902	0.372973
CTSH	1.217239	2.600875	0.009529	0.029936	0.009608	0.030165
CTSK	1.068556	1.359221	0.174589	0.293352	0.17353	0.291908
CTSL2	1.263344	2.248968	0.024878	0.063824	0.024794	0.063608
CTSO	-0.07881	-0.11628	0.907469	0.944025	0.907305	0.944046
CTSS	-0.47304	-0.94378	0.345663	0.487112	0.345865	0.487348
CTSZ	2.134105	4.417058	1.19E-05	0.000116	1.20E-05	0.000118
CTTN	0.60686	0.94391	0.345597	0.487112	0.344883	0.4873
CUL1	0.898533	2.045329	0.04126	0.09581	0.041637	0.096592
CUL2	2.382934	2.788675	0.005461	0.019197	0.005333	0.018816
CUL4A	-1.45187	-3.407	0.000701	0.00355	0.00072	0.003636
CUL4B	-0.24737	-0.48568	0.627371	0.740509	0.627463	0.740266
CUL5	1.225138	2.071735	0.038718	0.091526	0.038533	0.091102
CUL7	3.642569	8.113643	2.80E-15	4.25E-13	3.04E-15	4.61E-13
CWF19L2	-1.12365	-1.55581	0.120283	0.221005	0.119507	0.219924
CXADR	-1.63148	-2.80149	0.005251	0.018613	0.005213	0.018434
CXCL1	3.059264	4.452687	1.01E-05	0.000101	9.74E-06	9.86E-05
CXCL10	2.582553	2.905363	0.003804	0.014303	0.003703	0.014057
CXCL12	1.570529	2.844273	0.004604	0.0167	0.004585	0.016627
CXCL14	1.545671	1.999326	0.046025	0.104704	0.045506	0.103723
CXCL6	4.063143	4.753881	2.50E-06	3.13E-05	2.35E-06	3.00E-05
CXCR6	0.783433	0.8384	0.402141	0.5398	0.400712	0.538557
CXXC1	-0.35761	-1.36211	0.173676	0.29205	0.179308	0.299209
CYB561	2.046779	5.134506	3.83E-07	6.25E-06	4.16E-07	6.81E-06
CYB561D2	-0.16455	-0.21324	0.831211	0.891125	0.830815	0.890904
CYBA	-1.52076	-2.25158	0.024711	0.0635	0.024458	0.062885
CYBASC3	1.140744	1.371542	0.170721	0.287903	0.16958	0.286494
CYC1	-0.56641	-0.60707	0.544037	0.669891	0.542815	0.668562
CYCS	1.174517	1.585276	0.113432	0.210974	0.112636	0.209908
CYFIP2	-0.62021	-1.41635	0.157194	0.270208	0.157986	0.271248
CYorf15B	-0.33619	-0.44374	0.657388	0.76573	0.656648	0.765058
CYP27A1	-3.01189	-4.30026	1.99E-05	0.00018	1.92E-05	0.000174
CYP27B1	1.551345	2.301349	0.021715	0.057434	0.021485	0.057018
CYP2B6	-0.70021	-0.93729	0.348988	0.489041	0.347906	0.487935
CYP2E1	0.718203	0.749479	0.453863	0.589595	0.452461	0.588099
CYP2J2	-0.36019	-0.33536	0.737471	0.826914	0.736616	0.826276
CYP2S1	2.124902	3.206492	0.001415	0.006353	0.001389	0.006255
CYP39A1	-0.17861	-0.32431	0.745814	0.832206	0.745713	0.831941

CYP3A4	0.072966	0.109822	0.912587	0.947044	0.912442	0.946893
CYP3A5	0.844234	1.472278	0.141472	0.249969	0.141183	0.249552
CYP4B1	0.037247	0.045357	0.963838	0.978347	0.963743	0.978269
CYP4F11	0.389353	0.337252	0.736045	0.82603	0.73515	0.825115
CYP4F8	0.494444	0.913873	0.361152	0.500824	0.361024	0.500683
CYP51A1	1.089405	1.970507	0.049241	0.110946	0.049138	0.110715
CYP7B1	0.658798	1.863955	0.062818	0.134263	0.064209	0.136161
CYR61	2.525562	3.984256	7.60E-05	0.000552	7.43E-05	0.000541
CYYR1	-0.235	-0.30537	0.76019	0.840286	0.759639	0.839874
D4S234E	2.706645	4.132649	4.10E-05	0.000332	3.98E-05	0.000322
DAB2	-1.5149	-4.25945	2.38E-05	0.000208	2.61E-05	0.000225
DACH1	0.637189	0.723878	0.469424	0.604629	0.468154	0.603837
DACT1	0.19842	0.24915	0.80333	0.87041	0.802847	0.870245
DAD1	-0.20212	-0.62919	0.529468	0.657679	0.532469	0.659969
DAG1	1.34462	1.49428	0.13563	0.242385	0.134487	0.241072
DAP	0.197158	0.431376	0.666351	0.773105	0.666789	0.773041
DAPK1	-0.77929	-0.90477	0.365949	0.505128	0.364613	0.503755
DAPK2	-0.87566	-0.81326	0.416394	0.554091	0.414818	0.552463
DAPK3	1.890978	3.169467	0.001605	0.007044	0.001587	0.006979
DAPP1	-2.13821	-6.38497	3.44E-10	1.34E-08	4.39E-10	1.64E-08
DARS	-0.55772	-2.35076	0.019059	0.051779	0.021148	0.05641
DAXX	0.218963	0.272964	0.784975	0.858232	0.784443	0.858019
DAZAP1	1.275617	3.346805	0.000869	0.004218	0.00091	0.00438
DBC1	2.33048	2.923493	0.003592	0.013715	0.003509	0.013472
DBI	1.825607	3.187024	0.001512	0.006706	0.0015	0.006658
DBT	0.563333	1.429139	0.153486	0.265508	0.154879	0.267524
DCBLD2	0.878327	1.183169	0.237212	0.371138	0.236172	0.370127
DCDC2	0.593426	0.559545	0.575999	0.696417	0.57472	0.695681
DCI	0.04165	0.054552	0.956513	0.974342	0.956412	0.974238
DCK	-0.81993	-2.89708	0.003904	0.014564	0.004297	0.015752
DCLRE1C	0.133402	0.271651	0.785984	0.858377	0.786114	0.858453
DCP1A	1.202118	2.508205	0.012398	0.036765	0.012473	0.036938
DCP2	-2.95501	-3.56344	0.000395	0.002203	0.000381	0.002151
DCT	2.477753	4.762987	2.40E-06	3.04E-05	2.40E-06	3.06E-05
DCTD	-0.26822	-0.50346	0.614827	0.730272	0.614779	0.730584
DCTN1	0.066978	0.220163	0.825819	0.886947	0.827294	0.887939
DCTN2	2.139057	6.487502	1.83E-10	8.12E-09	2.38E-10	1.04E-08
DCTN6	1.657766	4.532685	7.04E-06	7.52E-05	7.73E-06	8.13E-05
DCX	1.698354	2.589776	0.009838	0.030641	0.00972	0.030415
DDAH1	0.621913	1.011892	0.311999	0.454273	0.311417	0.453707
DDB2	0.033535	0.070674	0.943681	0.966928	0.943736	0.966985

DDC	0.759959	1.118496	0.263804	0.402428	0.26295	0.401124
DDO	-1.44926	-2.66679	0.007865	0.025899	0.007845	0.025802
DDR2	0.461744	0.631958	0.527656	0.656253	0.52677	0.655846
DDT	0.748933	2.284701	0.02268	0.059219	0.023614	0.06115
DDX1	-0.94147	-1.94555	0.052177	0.116667	0.052356	0.116898
DDX18	1.90612	3.341227	0.000886	0.004285	0.000879	0.004274
DDX20	-0.04963	-0.1076	0.914348	0.948358	0.914458	0.948122
DDX21	1.134143	1.878077	0.060857	0.131205	0.060575	0.130717
DDX23	0.797665	0.845292	0.398286	0.536855	0.396841	0.535041
DDX24	-0.08435	-0.1029	0.918076	0.950431	0.917863	0.95021
DDX28	-0.41419	-1.08561	0.278088	0.417944	0.279967	0.42013
DDX3X	-1.09	-2.98903	0.002914	0.011527	0.003047	0.011988
DDX51	0.999918	3.728023	0.000211	0.001312	0.000252	0.001527
DDX52	-0.98566	-1.78339	0.07503	0.153522	0.074899	0.153188
DDX55	1.933686	3.179749	0.00155	0.006829	0.001531	0.006743
DDX56	1.539388	2.3921	0.01706	0.047586	0.016895	0.047125
DDX58	0.904253	1.824375	0.068594	0.142652	0.068737	0.14295
DDX6	1.480191	3.093551	0.00207	0.008695	0.002088	0.008763
DEAF1	-2.57837	-3.44084	0.00062	0.003208	0.000603	0.003124
DECR1	1.350977	4.023239	6.48E-05	0.000479	7.18E-05	0.000526
DEDD	0.369412	0.513051	0.608105	0.724669	0.607359	0.723964
DEFB1	2.556	2.593114	0.009744	0.030389	0.009514	0.029909
DEK	0.48461	0.892256	0.372615	0.511923	0.372472	0.5118
DEPDC5	-1.13892	-2.15725	0.031384	0.077066	0.031372	0.077117
DEPDC6	-0.36647	-0.67619	0.499182	0.630297	0.499061	0.630026
DERL3	-0.37528	-0.56463	0.572539	0.694972	0.571898	0.694194
DET1	-1.1225	-1.69965	0.089717	0.175921	0.089192	0.175106
DEXI	0.201262	0.251334	0.801643	0.869717	0.801151	0.869306
DFFA	0.399725	0.935876	0.349715	0.489411	0.350792	0.490692
DFNA5	-2.25378	-3.48388	0.00053	0.002801	0.00052	0.002745
DGCR14	-1.12349	-2.28978	0.022382	0.058571	0.022464	0.058921
DGCR2	1.247464	2.118428	0.034551	0.083233	0.034384	0.082916
DGCR5	0.003613	0.005631	0.995509	0.996481	0.995502	0.996493
DGKA	3.387087	6.641183	7.00E-11	3.87E-09	7.03E-11	3.84E-09
DGKD	1.10078	2.230007	0.026117	0.066219	0.0262	0.066382
DGKZ	-0.41182	-0.72476	0.468882	0.604283	0.468591	0.604053
DGUOK	1.162834	3.581178	0.00037	0.002089	0.000406	0.002268
DHCR7	-0.41215	-0.46029	0.645478	0.754663	0.644516	0.753789
DHDH	2.189259	2.532194	0.01159	0.034807	0.011358	0.03433
DHFR	1.104656	1.409477	0.159214	0.272806	0.158195	0.271267
DHODH	-3.95396	-6.40865	2.98E-10	1.22E-08	2.82E-10	1.18E-08

DHPS	-2.48396	-3.25011	0.001218	0.005614	0.001186	0.005481
DHRS3	-0.76658	-1.00437	0.315609	0.457545	0.314478	0.456362
DHRS9	2.032791	2.232366	0.02596	0.065918	0.025521	0.065196
DHRSX	2.838802	3.596077	0.00035	0.002	0.000338	0.001944
DHX29	0.257637	0.414973	0.67831	0.782236	0.677926	0.781638
DHX30	3.13958	3.817512	0.000149	0.000958	0.000143	0.000927
DHX34	-0.45045	-0.98819	0.323459	0.464768	0.324149	0.465315
DHX8	-0.43075	-0.96939	0.332741	0.474125	0.333578	0.475004
DHX9	-0.20977	-0.47856	0.632425	0.744182	0.633072	0.74435
DICER1	-1.16504	-2.28879	0.02244	0.05869	0.022474	0.058921
DIO2	2.521111	3.829367	0.000142	0.000921	0.000138	0.000904
DKC1	0.464016	1.38248	0.167341	0.283574	0.17003	0.287151
DKK3	-0.21806	-0.27312	0.784853	0.858232	0.784324	0.858019
DLC1	0.154982	0.506574	0.61264	0.728965	0.615649	0.731009
DLD	1.347895	2.682293	0.007514	0.024888	0.007536	0.025031
DLG1	1.301941	4.855773	1.53E-06	2.09E-05	2.04E-06	2.68E-05
DLG3	2.315271	4.831747	1.72E-06	2.31E-05	1.75E-06	2.37E-05
DLGAP4	1.9816	3.277801	0.001107	0.005151	0.001093	0.005105
DLL1	-0.08045	-0.09896	0.9212	0.952616	0.920997	0.952406
DLL3	-1.8658	-2.32751	0.020271	0.05438	0.019955	0.053747
DLX4	1.96758	2.348368	0.019181	0.052019	0.018858	0.051324
DLX5	0.112487	0.150739	0.880232	0.92535	0.879966	0.925101
DMD	1.59841	2.272954	0.023383	0.060718	0.023111	0.060178
DMPK	0.886901	2.09977	0.036168	0.086288	0.03661	0.08723
DMTF1	0.757905	1.363374	0.173278	0.291484	0.173067	0.291234
DMWD	-0.03422	-0.09069	0.927769	0.956267	0.928064	0.956557
DNAI1	0.865169	1.408946	0.159371	0.272876	0.158871	0.272118
DNAJA1	-0.21559	-0.52983	0.596428	0.714704	0.597497	0.715698
DNAJA2	-1.54254	-3.39102	0.000742	0.003706	0.000755	0.003767
DNAJA4	-4.49138	-4.26037	2.37E-05	0.000208	2.23E-05	0.000197
DNAJB1	1.227206	1.444062	0.149245	0.260183	0.148131	0.258735
DNAJB2	-1.15181	-3.36757	0.000807	0.003976	0.000866	0.004221
DNAJB5	1.307623	2.201242	0.0281	0.070258	0.027945	0.069826
DNAJB6	0.188557	0.344646	0.730482	0.8217	0.730389	0.821448
DNAJB9	-1.01419	-1.0366	0.30034	0.441815	0.298814	0.44077
DNAJC10	2.139793	4.991256	7.88E-07	1.21E-05	8.30E-07	1.27E-05
DNAJC12	0.436267	0.484089	0.6285	0.741082	0.627493	0.740266
DNAJC8	-0.11148	-0.39437	0.693445	0.79415	0.696538	0.796291
DNAL4	0.5445	0.989386	0.322874	0.464387	0.322677	0.464205
DNALI1	2.965849	3.311427	0.000984	0.004672	0.000951	0.004533
DNASE1	-0.26327	-0.32047	0.748721	0.832502	0.748083	0.83258

DNASE1L1	-1.1739	-1.89417	0.058685	0.127458	0.058367	0.127001
DNASE1L3	0.653751	0.744251	0.457017	0.593201	0.455733	0.591535
DNM1	2.313022	3.510855	0.00048	0.002583	0.00047	0.002539
DNM1L	1.276616	2.406852	0.016393	0.045888	0.01638	0.045908
DNM3	1.018054	2.176045	0.029943	0.07403	0.030126	0.074365
DNMT1	-1.86652	-2.52443	0.011846	0.035418	0.01166	0.035063
DNMT3A	-0.99743	-1.35783	0.175029	0.293799	0.174093	0.292436
DNMT3B	-2.17294	-4.33508	1.71E-05	0.000157	1.72E-05	0.000158
DOCK1	1.175888	1.098404	0.27247	0.411375	0.270856	0.409464
DOCK10	1.84201	2.916015	0.003678	0.013987	0.003631	0.013874
DOCK11	2.042964	3.3594	0.000831	0.00408	0.000819	0.00404
DOCK2	-1.65314	-1.93369	0.053622	0.118936	0.052963	0.117863
DOCK3	2.060727	4.072872	5.27E-05	0.000406	5.29E-05	0.000407
DOCK5	0.21386	0.26421	0.791709	0.863148	0.791186	0.862734
DOCK8	1.42499	2.11487	0.034854	0.083707	0.034537	0.083114
DOK2	1.2821	3.155916	0.00168	0.007306	0.001733	0.0075
DOK3	4.07915	7.212253	1.67E-12	1.64E-10	1.61E-12	1.57E-10
DOM3Z	1.154848	1.152041	0.249764	0.386022	0.248241	0.384263
DPAGT1	0.374216	0.803093	0.42224	0.559451	0.422786	0.559745
DPF2	1.082268	2.190295	0.028888	0.071953	0.028975	0.072112
DPM1	1.457924	2.86954	0.004256	0.015615	0.004266	0.015664
DPP4	1.933213	2.088375	0.037186	0.088373	0.036618	0.08723
DPP6	0.695272	0.837698	0.402535	0.53993	0.401283	0.538712
DPP8	-2.0352	-3.80089	0.000159	0.001015	0.000158	0.001013
DPT	1.91607	2.735457	0.006414	0.021877	0.006311	0.021588
DPYD	1.100009	2.337971	0.019718	0.053168	0.019846	0.053557
DPYSL2	-0.73006	-1.28772	0.198343	0.321564	0.198056	0.321098
DPYSL3	1.482358	2.850374	0.004517	0.016433	0.004519	0.01644
DPYSL4	-1.42133	-2.55738	0.010792	0.032937	0.010752	0.032827
DRAP1	0.251864	0.797096	0.425712	0.562984	0.429266	0.565932
DRG1	-1.31005	-1.39264	0.164245	0.279187	0.162959	0.277804
DRP2	-0.08402	-0.10547	0.916036	0.949259	0.915826	0.949147
DSCR3	-0.76089	-1.18816	0.235244	0.368918	0.234561	0.368288
DSG2	5.229901	6.054738	2.49E-09	8.00E-08	2.24E-09	7.31E-08
DSG3	1.654593	2.016054	0.044241	0.101195	0.043686	0.100355
DSP	1.49045	2.238893	0.02553	0.065107	0.025282	0.064685
DST	2.709965	5.817709	9.73E-09	2.54E-07	1.01E-08	2.64E-07
DSTN	0.188984	0.409038	0.682659	0.785818	0.683041	0.786066
DTNB	-2.88456	-3.53456	0.00044	0.002399	0.000425	0.002336
DTX1	-0.5154	-1.03093	0.302989	0.444599	0.303203	0.444954
DUSP1	0.934155	1.842376	0.065915	0.138675	0.065996	0.138825

DUSP10	0.649435	1.13391	0.257286	0.39492	0.256946	0.394269
DUSP12	1.038368	1.602796	0.109508	0.205025	0.108966	0.204493
DUSP18	-1.82832	-2.45709	0.01429	0.041178	0.014073	0.04073
DUSP2	1.371218	2.722386	0.00667	0.022587	0.006689	0.022634
DUSP3	-0.50115	-1.33989	0.180791	0.300892	0.182644	0.303009
DUSP4	-0.78329	-0.74263	0.457995	0.594305	0.456494	0.592358
DUSP5	-0.0905	-0.12451	0.900953	0.940149	0.900744	0.939916
DUSP6	1.995383	3.002566	0.002789	0.011118	0.002743	0.011001
DUT	2.005266	2.436985	0.015101	0.043024	0.014836	0.042438
DVL2	1.2255	2.147573	0.032149	0.078738	0.032029	0.078363
DVL3	-0.5019	-0.71055	0.477637	0.611812	0.476763	0.610901
DYM	-3.18354	-3.45551	0.000588	0.003069	0.000566	0.002969
DYRK1B	2.009881	2.330597	0.020106	0.053969	0.01976	0.053375
DYRK2	1.087524	2.593162	0.009743	0.030389	0.009923	0.030885
DYRK3	-1.32173	-2.5729	0.010325	0.031863	0.010337	0.031985
DYRK4	-2.65308	-4.1596	3.66E-05	0.000298	3.56E-05	0.000294
DYSF	1.575278	2.064185	0.039431	0.092802	0.038971	0.09195
DYX1C1	1.852097	3.452224	0.000595	0.003102	0.000593	0.003079
E2F4	-0.41073	-0.69816	0.485351	0.617695	0.484955	0.617191
EBI3	0.055492	0.061997	0.950586	0.9708	0.950442	0.970718
EBNA1BP2	0.032182	0.061773	0.950764	0.9708	0.950767	0.970803
ECE1	1.303061	3.661926	0.000273	0.001632	0.000293	0.00174
ECE2	0.799907	2.309467	0.021257	0.05651	0.021996	0.058011
ECEL1	0.233523	0.271559	0.786055	0.858377	0.785473	0.858341
ECH1	5.103572	6.956141	9.20E-12	7.09E-10	8.27E-12	6.48E-10
ECHDC1	1.680205	3.873484	0.000119	0.000795	0.000123	0.000817
ECHDC2	0.765406	1.843512	0.065749	0.138512	0.066455	0.139562
ECM1	-1.0338	-1.8561	0.063931	0.135778	0.063796	0.135552
ECM2	2.474078	5.072952	5.23E-07	8.31E-06	5.32E-07	8.45E-06
EDA	-1.44434	-1.70133	0.0894	0.175734	0.088524	0.174058
EDAR	2.57432	3.578681	0.000373	0.002104	0.000363	0.002062
EDN1	1.582027	2.160173	0.031156	0.076586	0.030792	0.075732
EDN3	0.154749	0.147127	0.883081	0.927275	0.882694	0.926868
EDNRA	2.149986	4.909688	1.18E-06	1.69E-05	1.23E-06	1.77E-05
EDNRB	0.432354	0.601753	0.547567	0.672651	0.546738	0.671985
EEA1	-0.37053	-0.41885	0.675478	0.779461	0.674598	0.778637
EED	-0.50903	-1.45337	0.146645	0.256792	0.14885	0.25959
EEF1D	0.475871	0.900652	0.368136	0.507253	0.368104	0.506912
EEF1E1	-0.32341	-0.82415	0.410183	0.547999	0.411801	0.549692
EEF2	0.142762	0.386124	0.699542	0.798022	0.700813	0.798889
EFEMP1	0.582263	0.818112	0.413619	0.551336	0.412674	0.550199

EFEMP2	0.302032	0.77704	0.437443	0.572696	0.439096	0.574701
EFHA1	-1.41468	-2.63767	0.008565	0.027648	0.008551	0.027575
EFHD1	0.123488	0.134386	0.893143	0.93378	0.892825	0.933822
EFNA1	0.833697	1.713382	0.087161	0.171835	0.087383	0.172174
EFNB1	3.844226	5.430527	8.18E-08	1.63E-06	7.70E-08	1.56E-06
EFNB2	4.131319	5.910487	5.73E-09	1.63E-07	5.35E-09	1.55E-07
EFNB3	1.118636	1.679898	0.093499	0.181433	0.092948	0.180607
EFS	-0.79636	-1.19697	0.231792	0.365175	0.23101	0.364467
EFTUD1	1.102725	1.665946	0.096248	0.185028	0.095699	0.18449
EGFR	-1.6518	-1.99533	0.04646	0.105514	0.045881	0.104478
EGLN1	0.618046	1.095311	0.273822	0.412752	0.273532	0.412247
EGLN3	2.911931	4.694618	3.32E-06	4.00E-05	3.22E-06	3.90E-05
EGR1	2.053259	3.578758	0.000373	0.002104	0.000369	0.002097
EGR3	0.829775	1.229408	0.219402	0.348729	0.218594	0.347679
EHD1	-0.36159	-1.04234	0.297675	0.439407	0.300401	0.442274
EHD2	0.006269	0.01594	0.987287	0.991506	0.987331	0.99155
EHD4	-2.29511	-2.81501	0.005038	0.018026	0.004925	0.01767
EHF	4.239862	6.071181	2.26E-09	7.37E-08	2.10E-09	6.89E-08
EHMT1	1.113724	1.260305	0.208051	0.334076	0.206747	0.332209
EIF1AX	0.806447	2.049179	0.04088	0.095212	0.041568	0.096479
EIF2AK2	0.697673	2.29312	0.022187	0.05829	0.023353	0.060709
EIF2AK4	-0.29923	-1.05965	0.289729	0.432158	0.294891	0.437078
EIF2B2	1.944141	2.881775	0.004096	0.01516	0.004031	0.014976
EIF2B5	-0.72747	-2.46921	0.013819	0.040168	0.014735	0.042228
EIF2C1	-2.01114	-3.94777	8.83E-05	0.000623	8.86E-05	0.000624
EIF2C3	-1.1732	-2.61164	0.009237	0.029215	0.009348	0.029466
EIF2S1	-0.06657	-0.20252	0.839579	0.897455	0.84065	0.897394
EIF2S2	0.236984	0.287612	0.773744	0.850268	0.773163	0.84963
EIF2S3	1.071925	2.016505	0.044194	0.101174	0.044166	0.101062
EIF4A2	-1.29714	-3.8094	0.000154	0.000986	0.000168	0.00107
EIF4B	-0.59591	-1.66761	0.095917	0.184651	0.097603	0.187404
EIF4E	-0.66245	-2.06648	0.039213	0.092427	0.040666	0.094854
EIF4E2	0.816403	2.277142	0.02313	0.060125	0.023821	0.061582
EIF4EBP1	-1.39702	-1.69715	0.090189	0.17662	0.089344	0.175184
EIF4G1	-0.1872	-0.35627	0.721766	0.814283	0.721762	0.814278
EIF4G2	-0.75809	-1.14452	0.252867	0.389626	0.252084	0.388839
EIF4G3	-0.99553	-2.54665	0.011126	0.03378	0.01141	0.034441
EIF5	0.557649	1.288751	0.197983	0.32109	0.198908	0.322257
EIF5A	-0.38339	-0.67325	0.501051	0.631182	0.500764	0.630863
ELAVL1	-2.95155	-6.65806	6.29E-11	3.52E-09	6.73E-11	3.78E-09
ELF1	-0.72265	-2.07019	0.038863	0.091742	0.039945	0.093823

ELF3	3.140337	6.354849	4.14E-10	1.56E-08	4.21E-10	1.59E-08
ELF4	0.910658	1.389633	0.165157	0.280469	0.164485	0.279594
ELK1	3.155531	4.2436	2.55E-05	0.00022	2.44E-05	0.000213
ELK3	0.793863	0.936865	0.349206	0.489067	0.347889	0.487935
ELK4	-0.53047	-0.81955	0.412802	0.550559	0.412092	0.549924
ELL	1.774342	2.615473	0.009135	0.028991	0.009011	0.028626
ELMOD2	2.217703	3.240749	0.001258	0.005731	0.001232	0.005629
ELN	1.231429	2.526204	0.011787	0.035264	0.011844	0.035479
ELOVL1	-0.55251	-1.27451	0.202979	0.327918	0.2039	0.328758
ELP3	1.424659	2.786508	0.005497	0.019295	0.005507	0.019343
ELP4	-1.92457	-2.17347	0.030137	0.074392	0.029664	0.073418
EMCN	3.501166	7.611146	1.06E-13	1.22E-11	1.13E-13	1.29E-11
EML1	0.492607	0.780802	0.435228	0.571106	0.4346	0.570176
EML4	2.525346	3.893308	0.00011	0.000744	0.000107	0.000727
EMP3	1.446622	2.710585	0.006909	0.023238	0.006899	0.023229
ENAH	0.907751	1.095517	0.273731	0.412749	0.272458	0.411224
ENG	0.35172	0.620095	0.535432	0.662633	0.53517	0.66227
ENO1	0.381066	1.016973	0.309578	0.451447	0.311617	0.453858
ENO2	-1.1836	-2.08856	0.03717	0.088373	0.037048	0.08803
ENPEP	3.581628	6.395738	3.22E-10	1.28E-08	3.14E-10	1.28E-08
ENPP2	-0.74239	-1.0232	0.306628	0.448162	0.305605	0.447171
ENSA	0.125976	0.381358	0.703073	0.800257	0.704956	0.801474
ENTPD1	0.454198	0.542896	0.587404	0.706519	0.586399	0.705765
ENTPD2	2.096248	2.055825	0.040233	0.094124	0.039585	0.093072
ENTPD3	0.846391	1.753887	0.079962	0.161366	0.0802	0.161777
ENTPD4	1.511495	1.541238	0.123788	0.226036	0.122601	0.224296
ENTPD5	0.855789	1.013514	0.311224	0.453427	0.309908	0.451929
EP300	0.09707	0.186805	0.851877	0.905637	0.851889	0.90565
EP400	-1.68712	-2.60902	0.009307	0.029359	0.0092	0.029079
EPAS1	2.224136	3.191673	0.001489	0.006632	0.001457	0.006505
EPB41	1.642142	3.652116	0.000283	0.001679	0.000289	0.001724
EPB41L1	0.956264	1.780234	0.075545	0.154308	0.075482	0.154247
EPB41L2	1.542342	3.246004	0.001236	0.005661	0.001249	0.005698
EPB41L3	-4.08355	-3.95111	8.71E-05	0.000615	8.25E-05	0.000587
EPB49	1.42034	1.84306	0.065815	0.138527	0.065173	0.137669
EPHA1	0.519701	0.55498	0.579116	0.699343	0.577961	0.698308
EPHA4	-0.11346	-0.14788	0.882491	0.926862	0.882216	0.926573
EPHB2	-0.61319	-0.97604	0.329439	0.470626	0.32879	0.4697
EPHB3	-1.5892	-1.79083	0.073826	0.151454	0.072996	0.150079
EPHB4	-0.26899	-0.3419	0.732547	0.823283	0.731914	0.822769
EPHB6	-1.56133	-1.48706	0.137527	0.24484	0.136221	0.243252

EPHX1	0.476649	0.966739	0.334065	0.475358	0.334345	0.475468
EPM2A	0.795402	3.041648	0.002456	0.010064	0.002795	0.011116
EPM2AIP1	1.568288	2.880751	0.004109	0.015196	0.004097	0.015125
EPN1	1.445066	5.41932	8.69E-08	1.72E-06	1.24E-07	2.37E-06
EPOR	-0.22746	-0.30684	0.759073	0.839445	0.758556	0.839071
EPRS	1.10847	2.482369	0.013325	0.038995	0.013477	0.039392
EPS15	0.763023	1.699636	0.089719	0.175921	0.090233	0.176559
EPS15L1	2.526921	3.346975	0.000868	0.004218	0.000845	0.004127
EPS8L2	1.137355	1.702986	0.08909	0.175198	0.088547	0.174058
EPSTI1	0.020086	0.02536	0.979776	0.98607	0.979726	0.98602
ERAL1	0.930446	3.376486	0.000782	0.003868	0.000896	0.004341
ERBB2	3.860466	5.211995	2.58E-07	4.45E-06	2.42E-07	4.23E-06
ERBB3	-1.01998	-1.49943	0.134289	0.240716	0.133589	0.239828
ERCC1	1.678536	2.208206	0.027609	0.069279	0.027249	0.068486
ERCC2	2.53455	3.957667	8.48E-05	0.000605	8.27E-05	0.000588
ERCC3	-1.14887	-1.32276	0.186419	0.307321	0.185181	0.305892
ERCC5	0.021108	0.06333	0.949525	0.970588	0.94985	0.970568
ERCC8	-0.58844	-0.94165	0.346752	0.487505	0.346121	0.487348
ERF	-0.4626	-0.78795	0.431036	0.567566	0.430625	0.566929
ERG	1.418976	4.230067	2.70E-05	0.000232	3.03E-05	0.000256
ERO1L	-0.13668	-0.35684	0.721338	0.813995	0.722365	0.814567
ERO1LB	-1.40579	-1.81147	0.070569	0.146021	0.069893	0.144905
ESD	0.129636	0.228084	0.819659	0.882388	0.819543	0.882312
ESM1	2.711315	4.2017	3.05E-05	0.000257	2.97E-05	0.000251
ESPL1	-1.7525	-2.66553	0.007894	0.025964	0.007794	0.025724
ESRRA	2.072072	3.045945	0.002422	0.00994	0.002378	0.009803
ETFA	0.712534	0.852741	0.394145	0.532934	0.392875	0.53137
ETFB	0.283062	0.380683	0.703574	0.800262	0.702945	0.799799
ETNK1	0.754877	1.051788	0.293322	0.43558	0.292326	0.434651
ETS2	2.104502	2.495036	0.012863	0.037809	0.01262	0.037303
ETV4	-3.99908	-4.10751	4.56E-05	0.00036	4.31E-05	0.000345
ETV5	-1.73402	-2.81659	0.005014	0.017961	0.00496	0.017783
ETV6	0.971245	3.412016	0.000688	0.003498	0.000781	0.003878
EVI2B	0.428022	1.195784	0.232255	0.365449	0.234607	0.368288
EVL	-2.55196	-7.02355	5.90E-12	4.95E-10	7.30E-12	6.02E-10
EVPL	1.523318	3.623897	0.000315	0.001832	0.000325	0.001883
EWSR1	-0.29075	-0.89837	0.369352	0.508184	0.372762	0.511901
EXO1	-0.75318	-1.5348	0.125363	0.22801	0.125597	0.228044
EXOSC10	0.221441	0.34128	0.733013	0.82361	0.732619	0.823168
EXOSC4	1.084202	1.34682	0.178548	0.298215	0.177442	0.296895
EXOSC5	-0.62172	-0.79944	0.424351	0.561659	0.423233	0.560179

EXT1	-3.06078	-3.32774	0.000929	0.004461	0.000897	0.004341
EXTL2	2.930292	4.90828	1.19E-06	1.70E-05	1.16E-06	1.68E-05
EXTL3	-0.89463	-1.42027	0.156049	0.268853	0.155487	0.268277
EYA2	0.008033	0.009041	0.992789	0.99427	0.992768	0.994278
EYA3	0.423809	0.64592	0.518579	0.647746	0.517911	0.647217
EZH1	-0.34989	-1.48086	0.139169	0.246829	0.145966	0.25608
EZH2	0.441788	0.536909	0.59153	0.71032	0.590555	0.709148
F10	0.54225	0.542413	0.587736	0.706519	0.586535	0.705765
F11R	2.163291	5.184775	2.96E-07	5.05E-06	3.16E-07	5.33E-06
F13A1	2.067228	2.706951	0.006984	0.023448	0.006852	0.023103
F2R	-1.03331	-2.59538	0.009681	0.030313	0.009915	0.030882
F2RL1	1.204012	1.945133	0.052227	0.116723	0.051932	0.116378
F2RL3	1.284751	1.941657	0.052648	0.11745	0.052258	0.116815
F3	3.17372	4.019049	6.59E-05	0.000485	6.32E-05	0.000474
F5	-0.33216	-0.42979	0.667503	0.773871	0.666757	0.773041
F7	-1.37094	-1.45429	0.14639	0.256442	0.145157	0.254852
F8	1.193555	2.018321	0.044004	0.100999	0.043802	0.100523
FAAH	0.099912	0.20506	0.837595	0.896129	0.837707	0.89625
FABP3	1.943761	2.914295	0.003698	0.014035	0.00364	0.013887
FABP4	2.798432	5.063727	5.48E-07	8.65E-06	5.41E-07	8.56E-06
FABP6	-1.2558	-1.0255	0.305544	0.447463	0.303793	0.4455
FADD	0.209151	0.359209	0.719565	0.81258	0.719342	0.812327
FADS3	-2.4481	-3.68252	0.000252	0.00153	0.000246	0.0015
FAF1	0.822875	1.868245	0.062217	0.133175	0.062696	0.134045
FAH	1.075554	1.783695	0.07498	0.153487	0.074665	0.152909
FAHD2A	-0.11952	-0.37179	0.710182	0.805222	0.712192	0.806579
FAIM2	2.438475	2.51277	0.012241	0.036412	0.01197	0.035721
FAM19A5	-4.252	-4.14757	3.85E-05	0.000312	3.63E-05	0.000298
FAM36A	2.184858	3.937979	9.19E-05	0.000642	9.11E-05	0.00064
FAM3A	-1.31348	-4.6083	4.97E-06	5.58E-05	6.18E-06	6.78E-05
FAM3C	1.648941	2.555505	0.01085	0.03307	0.01073	0.032791
FAM40A	1.240291	3.10347	0.002003	0.008435	0.002069	0.008698
FAM48A	-1.46166	-2.30766	0.021358	0.056746	0.021177	0.056423
FANCA	-1.1983	-3.55986	0.000401	0.002225	0.000435	0.002382
FANCC	0.034233	0.087303	0.93046	0.958186	0.9307	0.958434
FANCD2	-0.51062	-0.78998	0.429851	0.566545	0.429153	0.565932
FANCG	1.071505	1.907499	0.056935	0.12481	0.056792	0.124613
FAP	1.945695	1.736627	0.082968	0.165654	0.081906	0.164091
FAFP1	1.791979	3.129983	0.001833	0.007855	0.001819	0.007808
FARS2	0.714492	0.767371	0.443164	0.578896	0.441784	0.577123
FAS	1.33169	2.217485	0.026965	0.067919	0.026803	0.06762

FASN	-1.15731	-3.16176	0.001648	0.007203	0.00173	0.007494
FAU	-0.08694	-0.32176	0.747746	0.832206	0.750674	0.833419
FBL	-0.19643	-0.58133	0.561235	0.684789	0.563653	0.687025
FBLN1	-1.82917	-3.16739	0.001617	0.007087	0.001603	0.007033
FBLN2	-0.2471	-0.36423	0.715816	0.810168	0.715332	0.80955
FBLN5	-1.09951	-2.35941	0.018624	0.050774	0.018761	0.051145
FBN1	-1.43314	-4.13171	4.11E-05	0.000332	4.53E-05	0.000359
FBP1	0.572367	0.673435	0.500931	0.631182	0.499756	0.630468
FBP2	3.781747	3.786051	0.000169	0.001072	0.000161	0.001024
FBXL15	-2.58471	-2.63426	0.00865	0.027828	0.008441	0.02736
FBXO10	2.005268	1.965811	0.049783	0.111898	0.049041	0.110547
FBXO11	1.720881	3.930129	9.48E-05	0.000658	9.77E-05	0.000678
FBXO16	0.995434	1.695466	0.090508	0.17717	0.090218	0.176559
FBXO2	3.890324	3.713827	0.000223	0.001379	0.000213	0.001324
FBXO21	0.64037	1.698571	0.08992	0.176167	0.091241	0.178236
FBXO34	0.243879	0.362106	0.7174	0.810916	0.716929	0.810439
FBXO38	-1.11313	-2.41598	0.015992	0.045006	0.016127	0.045279
FBXO9	-1.27041	-2.8972	0.003903	0.014564	0.00397	0.014808
FBXW11	-0.58625	-1.19253	0.233527	0.36696	0.233811	0.367772
FBXW2	-1.2571	-1.73261	0.08368	0.166792	0.083026	0.165687
FBXW7	1.833778	4.431661	1.11E-05	0.000111	1.17E-05	0.000115
FCER1G	1.864906	3.845222	0.000133	0.000873	0.000135	0.000885
FCER2	-0.61153	-0.70619	0.480346	0.613819	0.479115	0.613079
FCGR1A	-0.30828	-0.47638	0.633978	0.74511	0.633463	0.74435
FCGR2A	-0.5119	-0.94446	0.345317	0.487112	0.345181	0.4873
FCGR2B	-0.05487	-0.07707	0.938593	0.963946	0.938469	0.963899
FCGRT	-0.06759	-0.1646	0.869317	0.917743	0.869677	0.918123
FCHO2	1.038059	1.999911	0.045962	0.104657	0.045979	0.104599
FCN1	0.403869	0.67294	0.501245	0.631257	0.500798	0.630863
FCN3	1.3867	2.466744	0.013914	0.040393	0.013858	0.040254
FDFT1	-1.87043	-3.68243	0.000252	0.00153	0.000253	0.001531
FDX1	2.372088	4.091393	4.88E-05	0.000379	4.80E-05	0.000376
FECH	-2.68702	-3.02225	0.002616	0.010564	0.002542	0.010318
FEN1	2.157079	3.856292	0.000128	0.000841	0.000126	0.000836
FER	2.17873	2.739386	0.006339	0.021699	0.006208	0.021314
FEZ1	0.406404	0.866369	0.386635	0.526284	0.387159	0.526173
FGA	1.271885	2.314303	0.020989	0.055963	0.020936	0.05591
FGD1	1.66728	2.016855	0.044157	0.10114	0.043598	0.100298
FGD2	1.554147	4.422334	1.16E-05	0.000114	1.29E-05	0.000124
FGD6	-1.34924	-1.8474	0.065184	0.137753	0.064608	0.136777
FGF1	3.086133	6.499084	1.70E-10	7.85E-09	1.76E-10	8.12E-09

FGF11	3.294156	4.070361	5.32E-05	0.00041	5.09E-05	0.000394
FGF12	-1.27992	-2.06428	0.039422	0.092802	0.039172	0.092286
FGF18	-0.12197	-0.17183	0.863628	0.913925	0.863356	0.913541
FGF9	1.500974	1.62632	0.104408	0.19795	0.10337	0.196299
FGFBP1	1.601593	1.523138	0.128253	0.231931	0.126985	0.230169
FGFR1	0.495252	0.920051	0.357917	0.49786	0.357809	0.498134
FGFR1OP	1.987312	4.67871	3.57E-06	4.24E-05	3.75E-06	4.42E-05
FGFR1OP2	-0.41129	-1.34138	0.180306	0.300191	0.183987	0.304485
FGFR4	2.566998	3.44672	0.000607	0.003147	0.00059	0.003072
FGL1	0.07323	0.088814	0.929259	0.957579	0.929073	0.957387
FGL2	0.147164	0.172962	0.86274	0.913925	0.862366	0.913541
FH	2.376792	5.616697	2.98E-08	6.62E-07	3.20E-08	7.22E-07
FHIT	-0.19687	-0.24674	0.805195	0.871784	0.804714	0.871264
FHL1	-2.309	-4.40413	1.26E-05	0.000122	1.26E-05	0.000122
FHL2	-0.54948	-0.83485	0.404134	0.541765	0.403375	0.540748
FHL3	1.639037	2.584013	0.010002	0.031029	0.009897	0.030846
FHOD3	-0.06974	-0.06616	0.947275	0.969132	0.947099	0.968952
FIBP	-0.957	-2.93898	0.00342	0.013197	0.003649	0.013897
FIGNL1	1.218738	1.971623	0.049113	0.110766	0.048831	0.110214
FIP1L1	0.852879	2.589871	0.009835	0.030641	0.010336	0.031985
FKBP11	-0.47531	-0.90576	0.365428	0.504776	0.365425	0.504257
FKBP1A	-1.25366	-2.90266	0.003836	0.014358	0.003909	0.014652
FKBP2	-0.16026	-0.2636	0.79218	0.863261	0.79195	0.863011
FKBP4	-0.06256	-0.1343	0.893214	0.93378	0.89334	0.933874
FKBP5	-0.66573	-1.31679	0.188414	0.30974	0.188561	0.309981
FKBP8	0.300694	0.726456	0.467843	0.603918	0.46903	0.604122
FKBP9	0.019652	0.052984	0.957763	0.975293	0.957948	0.975335
FLI1	-1.61192	-3.3036	0.001012	0.004788	0.001019	0.004824
FLII	-1.52524	-1.54489	0.122902	0.224937	0.121713	0.223116
FLJ36031	-0.75244	-1.01412	0.310937	0.453148	0.309865	0.451929
FLNB	1.226482	2.036773	0.042113	0.097454	0.041892	0.09699
FLNC	0.641774	1.414967	0.157599	0.270531	0.158214	0.271267
FLOT1	0.177307	0.462755	0.643708	0.753344	0.644982	0.754083
FLRT2	0.05274	0.077646	0.938136	0.963946	0.938025	0.963865
FLRT3	0.495849	0.476037	0.634222	0.745211	0.633099	0.74435
FLT1	3.838818	5.946288	4.67E-09	1.37E-07	4.41E-09	1.33E-07
FLT3LG	5.438098	5.394084	9.93E-08	1.95E-06	9.03E-08	1.79E-06
FMNL1	-1.70042	-4.36009	1.53E-05	0.000143	1.64E-05	0.000152
FMO1	0.967943	1.643497	0.100806	0.192284	0.100492	0.191841
FMO2	-4.65953	-4.64226	4.24E-06	4.88E-05	3.95E-06	4.61E-05
FMO4	-0.76786	-1.24107	0.215068	0.342871	0.214496	0.341855

FMO5	0.337498	0.516734	0.605533	0.722153	0.604966	0.72166
FMOD	1.626896	1.903559	0.057447	0.125693	0.05676	0.124602
FN1	2.206139	4.321298	1.82E-05	0.000165	1.82E-05	0.000166
FN3K	-1.38702	-1.43636	0.151424	0.262908	0.150148	0.261078
FNBP1	0.820979	2.378206	0.01771	0.049108	0.018367	0.050263
FNBP4	-0.21416	-0.2726	0.785256	0.858303	0.784741	0.858019
FNTA	-0.63523	-1.19663	0.231925	0.365175	0.231874	0.365585
FNTB	-0.53755	-0.56716	0.570819	0.693064	0.569635	0.691804
FOLR1	-0.36072	-0.36415	0.715878	0.810168	0.715011	0.809381
FOLR2	0.18833	0.324958	0.745327	0.832075	0.74513	0.831856
FOLR3	2.382362	4.158397	3.67E-05	0.000299	3.62E-05	0.000298
FOSB	1.214143	2.062961	0.039547	0.092983	0.039366	0.092674
FOSL1	0.585799	0.882317	0.37796	0.516849	0.377166	0.516179
FOXA1	1.180936	1.200181	0.230544	0.36361	0.229066	0.361886
FOXA2	-0.38885	-0.78659	0.431836	0.568046	0.432091	0.568375
FOXA3	3.139636	4.765752	2.36E-06	3.00E-05	2.27E-06	2.93E-05
FOXDI	-1.40618	-1.85438	0.064177	0.136178	0.063563	0.135277
FOXF1	-0.87082	-1.83226	0.06741	0.141188	0.06767	0.141418
FOXF2	-0.64657	-1.41499	0.157592	0.270531	0.158171	0.271267
FOXJ1	1.347449	2.347487	0.019226	0.052111	0.019136	0.051898
FOXJ2	0.676039	1.359598	0.17447	0.293279	0.174681	0.29332
FOXMI	0.939404	1.382399	0.167365	0.283574	0.166605	0.282585
FPGS	1.263789	2.116441	0.03472	0.08347	0.034535	0.083114
FPGT	-1.28498	-2.57968	0.010127	0.031354	0.010161	0.031543
FPR1	1.232166	1.717318	0.086439	0.170944	0.08579	0.169869
FRG1	-1.08719	-3.40236	0.000713	0.003602	0.00078	0.003874
FRS2	2.144156	3.658739	0.000276	0.001644	0.000272	0.001634
FRS3	-1.13421	-1.27381	0.203227	0.328123	0.201921	0.326462
FRZB	2.650616	4.322119	1.81E-05	0.000165	1.77E-05	0.000161
FSCN2	1.979295	3.275153	0.001117	0.005193	0.001103	0.005137
FST	-0.23269	-0.25691	0.797334	0.867057	0.796749	0.866633
FSTL1	-1.65555	-2.66664	0.007869	0.025899	0.007789	0.025724
FTCD	0.342431	0.463825	0.642942	0.753009	0.642213	0.751968
FTSJ1	1.294256	3.147331	0.00173	0.007493	0.00178	0.007662
FUBP1	-1.80437	-2.75137	0.006114	0.021054	0.006033	0.020864
FUBP3	2.812424	4.169392	3.51E-05	0.000288	3.39E-05	0.000281
FURIN	1.892072	5.536798	4.62E-08	9.91E-07	5.50E-08	1.16E-06
FUT10	2.871308	3.496089	0.000507	0.002693	0.00049	0.002623
FUT6	-1.88519	-1.89781	0.058203	0.126821	0.057402	0.125718
FUT8	3.888509	5.759983	1.35E-08	3.38E-07	1.27E-08	3.22E-07
FXC1	-0.39717	-1.47201	0.141544	0.250003	0.146395	0.256642

FXN	0.346682	0.636672	0.524582	0.653815	0.52445	0.65365
FXR1	1.380269	1.843669	0.065726	0.138512	0.065118	0.137614
FXR2	3.233487	4.491389	8.49E-06	8.70E-05	8.13E-06	8.42E-05
FXYD2	-1.52694	-2.24467	0.025154	0.06442	0.024892	0.063766
FXYD3	2.532855	3.179729	0.00155	0.006829	0.001508	0.006675
FYB	-1.27476	-2.06599	0.039259	0.09249	0.039017	0.092011
FYN	0.963184	2.603478	0.009457	0.029752	0.009775	0.030547
FZD3	-2.48045	-2.55972	0.01072	0.032789	0.010476	0.032266
FZD4	2.111075	2.587408	0.009905	0.03083	0.009713	0.030415
FZD7	0.647198	1.372356	0.170467	0.287579	0.170911	0.288225
FZD9	-0.74947	-1.17229	0.241549	0.375672	0.240867	0.37486
FZR1	-0.22885	-0.57389	0.56626	0.688595	0.567506	0.689754
G3BP2	-0.98172	-1.83532	0.066955	0.140297	0.066905	0.140319
GAA	-0.45733	-0.74007	0.459548	0.595664	0.458993	0.594944
GAB1	-0.96654	-1.7588	0.079123	0.160016	0.079002	0.159703
GAB2	-0.36883	-0.78488	0.432834	0.569041	0.433333	0.569568
GABARAP	0.310916	1.04403	0.296893	0.438666	0.301334	0.442723
GABARAPL2	-1.06994	-4.03153	6.26E-05	0.000467	7.71E-05	0.000556
GABBR1	2.253839	3.128795	0.001841	0.007879	0.0018	0.007734
GABPB2	0.648552	1.572687	0.11632	0.215493	0.117311	0.216816
GABRB1	-1.07547	-1.47234	0.141455	0.249969	0.140601	0.248711
GABRB3	0.487637	0.679725	0.496942	0.628785	0.496055	0.628233
GABRD	0.381611	0.656013	0.512068	0.64145	0.511719	0.641013
GABRE	-1.38532	-2.59758	0.00962	0.030161	0.009607	0.030165
GAD1	0.1489	0.225593	0.821595	0.883637	0.821309	0.88333
GADD45B	-0.02626	-0.06804	0.945775	0.968229	0.945976	0.968393
GADD45G	-2.26634	-2.63689	0.008585	0.027673	0.008401	0.027269
GAK	0.042809	0.15045	0.880461	0.92535	0.881698	0.926378
GALE	-1.73678	-2.1287	0.033687	0.081783	0.033227	0.08079
GALK1	0.839218	2.43022	0.015383	0.043606	0.015975	0.045014
GALK2	1.382061	2.436241	0.015132	0.043024	0.015065	0.042886
GALNS	0.030842	0.116447	0.907337	0.944025	0.908506	0.944685
GALNT11	1.337172	3.136351	0.001795	0.007705	0.001837	0.007871
GALNT3	-0.13664	-0.17069	0.864525	0.914121	0.864186	0.913968
GALNT6	0.489626	0.592023	0.554059	0.679207	0.553009	0.67792
GALNT7	0.973402	2.038923	0.041897	0.097051	0.042081	0.097376
GALNTL2	0.970546	1.689122	0.091717	0.178868	0.091476	0.178545
GAMT	-0.83911	-1.37128	0.170802	0.287937	0.170299	0.287502
GAP43	-1.28517	-1.5437	0.123191	0.22529	0.12219	0.223722
GARS	-0.57316	-1.33752	0.181562	0.301854	0.182518	0.302908
GART	-0.20588	-0.44049	0.659739	0.767518	0.660104	0.767943

GAS1	-0.1016	-0.16196	0.871389	0.919517	0.87122	0.919338
GAS2L1	-0.29679	-0.37582	0.707182	0.803228	0.70649	0.802636
GAS6	-0.88345	-1.91739	0.055665	0.122887	0.055981	0.123468
GAS8	1.716057	1.725187	0.08501	0.168706	0.084015	0.166965
GATA2	1.682886	2.618496	0.009056	0.028758	0.008953	0.028515
GATA4	1.665285	2.305743	0.021466	0.056969	0.021194	0.056436
GATA6	2.707957	4.463567	9.64E-06	9.75E-05	9.41E-06	9.59E-05
GATM	4.107711	4.5245	7.30E-06	7.72E-05	6.86E-06	7.40E-05
GBA2	0.330618	0.560036	0.575664	0.696417	0.575309	0.695905
GBAS	-0.6968	-1.41149	0.15862	0.272085	0.158854	0.272118
GBE1	-0.38151	-0.47432	0.635446	0.746275	0.634585	0.74545
GBF1	-1.46148	-2.47	0.013789	0.040105	0.013698	0.03989
GBGT1	-1.7484	-3.73464	0.000206	0.001282	0.000209	0.001306
GBP2	-1.06498	-2.53728	0.011425	0.034451	0.011627	0.034985
GC	2.518509	3.248088	0.001227	0.005631	0.001194	0.005501
GCA	0.804218	1.51551	0.130172	0.234499	0.13013	0.23488
GCAT	0.432689	0.404081	0.686298	0.78827	0.685296	0.787697
GCC1	-0.46796	-1.29745	0.194976	0.317419	0.197163	0.319981
GCC2	0.847211	1.548838	0.12195	0.22363	0.121814	0.223208
GCDH	-0.74311	-2.08431	0.037556	0.089012	0.038534	0.091102
GCGR	0.119084	0.155804	0.87624	0.922963	0.875952	0.922675
GCHFR	0.099277	0.104712	0.91664	0.949295	0.916384	0.94919
GCLC	-0.90479	-2.91556	0.003684	0.013996	0.003967	0.014808
GCNT1	0.563689	0.993289	0.320971	0.462892	0.320658	0.462867
GCNT2	1.003848	1.470036	0.142078	0.250757	0.141354	0.249761
GDA	-4.02147	-4.10105	4.68E-05	0.000367	4.43E-05	0.000352
GDF10	0.18246	0.453535	0.650328	0.759012	0.651333	0.760185
GDF15	-1.26033	-1.33109	0.183665	0.30449	0.182321	0.302794
GDI2	-0.47015	-1.47005	0.142074	0.250757	0.145033	0.254729
GEM	1.104794	2.28298	0.022782	0.059419	0.022884	0.059724
GEMIN4	0.912032	1.290888	0.197241	0.320108	0.196351	0.319077
GEMIN7	-2.17977	-3.18956	0.001499	0.006667	0.001469	0.00654
GFPT1	-0.44404	-1.10758	0.268489	0.406933	0.269987	0.408675
GFPT2	1.968329	1.67776	0.093917	0.181724	0.092754	0.180479
GFRA1	-1.02157	-1.98747	0.047326	0.107248	0.047363	0.107229
GFRA2	-1.1935	-2.73801	0.006365	0.021758	0.006468	0.022076
GFRA3	-3.93807	-3.87687	0.000118	0.000787	0.000112	0.00075
GGA1	-0.22437	-0.55962	0.575947	0.696417	0.577142	0.697497
GGA2	-1.35196	-4.19022	3.21E-05	0.000268	3.64E-05	0.000298
GGCX	-0.09136	-0.10222	0.918613	0.950778	0.918378	0.950534
GGH	0.910211	1.18751	0.235498	0.369193	0.234395	0.368201

GGPS1	-0.16238	-0.31354	0.75398	0.835064	0.754007	0.835022
GHITM	4.458164	6.62365	7.82E-11	4.13E-09	7.22E-11	3.90E-09
GHR	-1.97235	-2.9728	0.00307	0.012003	0.003021	0.0119
GHRL	-1.56316	-1.60424	0.109189	0.204865	0.108076	0.203264
GIT1	-0.25973	-0.37405	0.7085	0.804336	0.707971	0.803749
GIT2	0.678643	1.120021	0.263155	0.401567	0.262624	0.40096
GJA4	2.310228	2.780334	0.005601	0.019602	0.005475	0.019261
GJB1	2.276144	3.610982	0.000331	0.001911	0.000324	0.001883
GJB2	2.875909	3.184402	0.001526	0.006747	0.001478	0.00657
GJC1	1.851795	5.630795	2.76E-08	6.39E-07	3.39E-08	7.55E-07
GK2	1.930069	5.368312	1.14E-07	2.19E-06	1.31E-07	2.48E-06
GKN1	6.450812	4.8625	1.48E-06	2.05E-05	1.35E-06	1.92E-05
GLA	-1.05784	-1.24069	0.215206	0.342871	0.213944	0.341207
GLB1	-2.16318	-4.274	2.23E-05	0.000198	2.24E-05	0.000199
GLCCI1	0.230402	0.277134	0.781773	0.85682	0.781205	0.856223
GLG1	-0.95952	-3.60422	0.000339	0.001946	0.000401	0.002248
GLI1	-1.09529	-1.32766	0.184796	0.305749	0.183637	0.304121
GLI3	-1.22513	-1.42927	0.153449	0.265508	0.152311	0.264155
GLIPR1	0.271382	0.478502	0.632468	0.744182	0.632251	0.74401
GLIS2	-0.69039	-0.97632	0.329302	0.470574	0.328339	0.469483
GLIS3	3.028108	4.503415	8.04E-06	8.33E-05	7.75E-06	8.13E-05
GLO1	1.053963	1.358476	0.174825	0.293561	0.173788	0.292134
GLRX	1.796696	2.902375	0.00384	0.014358	0.003795	0.014316
GLRX2	0.192369	0.390831	0.696061	0.795789	0.696234	0.796226
GLS	-0.65441	-1.07587	0.282421	0.422597	0.281874	0.421913
GLS2	1.923201	2.888322	0.004013	0.014922	0.003951	0.014775
GLT25D1	-1.69005	-2.18718	0.029116	0.072482	0.028732	0.071602
GLT25D2	-2.50435	-2.62135	0.008981	0.028559	0.00877	0.028062
GLTP	1.720872	3.591581	0.000356	0.002026	0.00036	0.002047
GLUD1	0.730313	1.271584	0.204015	0.32917	0.203682	0.328547
GLUL	-1.8175	-3.66511	0.000269	0.00162	0.000271	0.001629
GM2A	-0.08854	-0.09826	0.921755	0.95298	0.921526	0.952744
GMEB1	-1.64233	-2.76205	0.005921	0.020551	0.005871	0.020394
GMEB2	1.703223	3.66002	0.000274	0.001641	0.000279	0.001666
GMFB	0.184464	0.351694	0.725192	0.817288	0.725192	0.817167
GMFG	-1.00639	-3.65865	0.000276	0.001644	0.000323	0.00188
GMIP	3.283836	4.378939	1.41E-05	0.000133	1.35E-05	0.000129
GMPPB	0.87315	2.234676	0.025807	0.065706	0.02633	0.066569
GMPR	0.064568	0.104539	0.916777	0.949295	0.916675	0.94919
GNA11	-1.55866	-1.53744	0.124715	0.22737	0.123494	0.225494
GNA12	2.74432	3.679611	0.000255	0.001543	0.000247	0.001502

GNAI1	0.465242	1.188817	0.234984	0.368771	0.236622	0.370588
GNAI3	0.84262	1.828913	0.06791	0.14192	0.068266	0.142285
GNAL	0.654719	0.810046	0.418236	0.555756	0.417042	0.554204
GNAO1	2.635384	3.460693	0.000577	0.003021	0.00056	0.002942
GNAS	0.494448	1.495881	0.135212	0.242094	0.137817	0.244985
GNAT1	0.462476	0.625145	0.532114	0.659651	0.531211	0.658931
GNB1	2.685016	6.692881	5.04E-11	2.97E-09	5.72E-11	3.32E-09
GNB2	-1.0688	-2.98629	0.002939	0.0116	0.003084	0.012079
GNB2L1	0.353262	1.380935	0.167815	0.284125	0.173773	0.292134
GNB3	-1.54049	-2.39056	0.017131	0.047756	0.016965	0.047264
GNB5	-0.05976	-0.11801	0.9061	0.943294	0.90613	0.943609
GNG10	-0.75024	-0.96407	0.335399	0.476967	0.334231	0.47545
GNG11	-0.35947	-0.88559	0.376195	0.515336	0.377601	0.516509
GNG3	-2.81538	-4.53941	6.82E-06	7.35E-05	6.64E-06	7.18E-05
GNG7	-1.30629	-1.93126	0.053923	0.119546	0.053499	0.118717
GNL1	-0.31158	-1.14995	0.250623	0.387095	0.256308	0.393547
GNL2	1.683948	3.574126	0.00038	0.00213	0.000385	0.002167
GPLY	1.82522	2.540177	0.011332	0.03425	0.011162	0.033825
GNPAT	0.972917	2.906972	0.003785	0.014261	0.004011	0.014936
GNRH1	0.433712	0.589044	0.556054	0.680942	0.555192	0.680064
GNS	0.293377	0.648468	0.516931	0.647025	0.517567	0.646959
GOLGA1	-0.73359	-0.82542	0.409464	0.547506	0.408112	0.546008
GOLGA2	0.313005	0.999108	0.318147	0.460057	0.321966	0.4639
GOLGA3	0.403813	1.429917	0.153263	0.265317	0.157677	0.270963
GOLGA4	2.42917	5.734762	1.55E-08	3.74E-07	1.67E-08	4.04E-07
GOLGA7	-0.4499	-1.34567	0.178919	0.298621	0.181707	0.30199
GOLGB1	1.588773	2.293974	0.022138	0.058225	0.021886	0.057854
GOLPH3	-2.13897	-3.32513	0.000938	0.004484	0.000921	0.004414
GOPC	1.702135	4.758225	2.45E-06	3.08E-05	2.74E-06	3.40E-05
GOSR1	0.934713	1.965852	0.049778	0.111898	0.049993	0.112318
GOSR2	-0.51835	-0.93063	0.352419	0.492519	0.352177	0.492043
GOT2	-0.68093	-0.9623	0.336289	0.477655	0.335325	0.476429
GP2	-0.89125	-0.93303	0.351183	0.490946	0.349692	0.489444
GPA33	-0.35466	-0.47808	0.632769	0.744182	0.632016	0.74401
GPAA1	0.234751	0.332434	0.739678	0.827735	0.73918	0.827175
GPC1	0.1717	0.211322	0.832708	0.891916	0.832282	0.89146
GPC4	0.605604	0.787623	0.431229	0.567566	0.430138	0.566606
GPC6	0.387141	0.724568	0.469	0.604283	0.468929	0.604122
GPD1	-2.17199	-3.75444	0.000191	0.001195	0.000188	0.001185
GPHN	-0.30256	-0.57169	0.567749	0.68987	0.567718	0.689833
GPI	-0.4563	-1.18489	0.236533	0.370693	0.238295	0.37246

GPKOW	-0.14462	-0.43692	0.66233	0.76977	0.664425	0.771442
GPM6B	1.135179	1.811357	0.070587	0.146021	0.070213	0.145439
GPNMB	-0.89467	-1.60267	0.109536	0.205025	0.10935	0.20484
GPR108	1.560564	2.502317	0.012604	0.037258	0.012489	0.036962
GPR109B	1.714933	3.526264	0.000454	0.002468	0.000458	0.002487
GPR133	1.814168	2.95189	0.003282	0.012728	0.003244	0.012612
GPR135	2.675005	3.95539	8.56E-05	0.000608	8.31E-05	0.00059
GPR155	1.796259	4.000541	7.11E-05	0.000521	7.30E-05	0.000533
GPR160	1.722587	2.35815	0.018687	0.050916	0.018434	0.050401
GPR3	2.335389	3.970459	8.05E-05	0.000576	7.92E-05	0.000568
GPR35	0.65345	0.942872	0.346127	0.487211	0.345215	0.4873
GPR4	2.454628	2.466113	0.013938	0.040413	0.013635	0.039729
GPR55	2.28768	5.813614	9.95E-09	2.57E-07	1.11E-08	2.86E-07
GPR56	0.148778	0.172136	0.863389	0.913925	0.86301	0.913541
GPR65	-3.79489	-8.61318	6.32E-17	1.56E-14	7.02E-17	1.74E-14
GPR75	1.355492	2.113095	0.035006	0.083944	0.034738	0.083374
GPRC5B	1.642435	2.725579	0.006607	0.022401	0.006548	0.022285
GPRC5C	1.968796	3.226006	0.001324	0.006	0.001306	0.005927
GPS1	-0.54611	-1.17661	0.239818	0.373722	0.24039	0.37449
GPSM2	2.342039	3.213411	0.001382	0.006229	0.00135	0.006099
GPSM3	1.124264	2.385138	0.017383	0.048315	0.017499	0.048579
GPT	2.54613	3.116099	0.00192	0.00815	0.001868	0.007983
GPT2	-1.40834	-2.11776	0.034608	0.083285	0.034305	0.082853
GPX1	2.427579	6.161822	1.32E-09	4.47E-08	1.49E-09	5.04E-08
GPX2	-0.22172	-0.22805	0.819682	0.882388	0.819125	0.882192
GPX3	0.547323	1.344221	0.179387	0.299084	0.180647	0.300865
GPX4	1.615843	4.057374	5.62E-05	0.000427	5.93E-05	0.000448
GRAP2	0.266556	0.649873	0.516024	0.64606	0.517197	0.646931
GRASP	1.355255	1.75025	0.080588	0.16242	0.079863	0.161166
GRB10	-1.12835	-1.88569	0.059821	0.129269	0.059558	0.128758
GRB14	1.236904	2.53143	0.011615	0.034837	0.011669	0.035066
GRB2	1.965397	2.798925	0.005293	0.018701	0.005203	0.018421
GRB7	3.86519	4.570345	5.92E-06	6.52E-05	5.58E-06	6.20E-05
GREM1	1.307638	2.086236	0.03738	0.088731	0.037127	0.088136
GRHPR	1.768128	2.970954	0.003088	0.012054	0.003058	0.012008
GRIA3	-0.49667	-0.68892	0.491143	0.622874	0.49024	0.621729
GRIK3	1.245288	2.909584	0.003754	0.014182	0.003829	0.01441
GRIN1	1.271113	1.769631	0.077298	0.157002	0.076686	0.156096
GRIN2C	2.622494	3.353035	0.00085	0.004147	0.000825	0.004056
GRIN2D	-0.30761	-0.40157	0.688141	0.79	0.687445	0.789202
GRK5	0.591511	1.465469	0.143318	0.252473	0.144529	0.254225

GRK6	-2.0956	-3.32072	0.000953	0.004545	0.000937	0.004475
GRM3	-0.44882	-0.49732	0.619144	0.733674	0.618115	0.733065
GRN	-1.78779	-4.7489	2.56E-06	3.18E-05	2.81E-06	3.47E-05
GRP	-0.25761	-0.27698	0.781894	0.85682	0.781251	0.856223
GRSF1	2.940457	3.942626	9.01E-05	0.000635	8.69E-05	0.000613
GSK3B	0.51272	1.058285	0.290353	0.432813	0.290718	0.433219
GSN	-0.15177	-0.27619	0.7825	0.857084	0.782417	0.856794
GSPT1	0.028408	0.049384	0.960629	0.976418	0.9606	0.976389
GSR	-2.0564	-3.65661	0.000278	0.001654	0.000276	0.001649
GSS	-2.99309	-3.88092	0.000116	0.000776	0.000111	0.000749
GSTA4	-0.23021	-0.38324	0.701681	0.799491	0.701383	0.799152
GSTK1	0.732107	1.308246	0.191292	0.312613	0.191052	0.312536
GSTM2	-0.85537	-1.80756	0.071178	0.147048	0.071459	0.147695
GSTM3	-3.78418	-6.44566	2.37E-10	1.00E-08	2.28E-10	1.02E-08
GSTM4	-1.68227	-2.585	0.009974	0.030982	0.009858	0.030749
GSTM5	-0.04597	-0.05234	0.958277	0.975293	0.958158	0.975335
GSTO1	-1.43813	-4.79983	2.01E-06	2.61E-05	2.47E-06	3.12E-05
GSTP1	1.934467	4.349174	1.61E-05	0.000148	1.66E-05	0.000153
GSTT1	0.22874	0.145277	0.884541	0.928185	0.884088	0.92771
GSTZ1	0.642414	1.394568	0.163664	0.278695	0.164212	0.279333
GTF2A1	1.142223	3.183694	0.00153	0.006757	0.001614	0.007054
GTF2A2	0.332867	0.679824	0.496879	0.628785	0.497159	0.628638
GTF2B	1.679165	2.186779	0.029145	0.072516	0.028765	0.071646
GTF2E1	0.943169	1.205188	0.228608	0.360919	0.227473	0.359731
GTF2E2	0.80864	0.969949	0.332464	0.474084	0.33117	0.472382
GTF2F2	1.750056	4.111583	4.48E-05	0.000354	4.65E-05	0.000366
GTF2H1	-0.93388	-3.21208	0.001389	0.006245	0.001545	0.006801
GTF2H2	1.900642	2.781351	0.005584	0.019556	0.005497	0.019325
GTF2H4	-0.52106	-0.49597	0.620096	0.734119	0.618931	0.733304
GTF2H5	2.297174	6.072191	2.24E-09	7.37E-08	2.58E-09	8.30E-08
GTF2IRD1	0.894463	1.087993	0.277037	0.416663	0.275775	0.415164
GTF3C1	0.642324	0.878014	0.380289	0.518977	0.379264	0.518331
GTF3C2	-0.36459	-0.91539	0.360357	0.5002	0.361907	0.501168
GTF3C3	0.25853	0.394603	0.693276	0.79415	0.692814	0.793771
GTF3C4	1.54917	1.977215	0.048476	0.109485	0.047928	0.108298
GTPBP1	0.182306	0.400904	0.688634	0.790374	0.689064	0.790867
GTPBP4	-1.39374	-3.06858	0.002248	0.009326	0.002281	0.009471
GTPBP5	0.386088	0.529653	0.596549	0.714704	0.595765	0.714476
GTSE1	2.617992	2.805889	0.005181	0.01842	0.005046	0.01805
GUCA1B	0.643474	0.80238	0.422652	0.559725	0.421476	0.558863
GUCY1A3	-0.98025	-1.99972	0.045982	0.104657	0.046118	0.104865

GUCY1B3	2.882894	3.449319	0.000602	0.003124	0.000581	0.003039
GUCY2C	-2.42406	-2.79891	0.005293	0.018701	0.005166	0.018338
GUK1	0.769207	1.279601	0.201182	0.325492	0.200705	0.324832
GUSB	-0.77097	-0.90364	0.36655	0.505809	0.365229	0.504245
GYG2	1.096641	2.132611	0.033363	0.081163	0.033392	0.081149
GZMA	0.080897	0.122484	0.902557	0.941415	0.902398	0.94125
GZMB	1.620535	2.106799	0.035551	0.085033	0.035115	0.084076
GZMH	-1.73086	-2.33304	0.019977	0.053716	0.019703	0.05325
GZMK	-0.93375	-1.05291	0.292808	0.435505	0.291417	0.433849
GZMM	-3.17351	-3.812	0.000152	0.000978	0.000146	0.000944
H1F0	-1.05162	-1.66575	0.096287	0.185028	0.095829	0.184665
H2AFV	0.248648	0.44294	0.657969	0.766218	0.65779	0.766199
H2AFX	-0.49407	-0.93762	0.348816	0.489041	0.348795	0.48848
H2AFZ	0.407362	0.491696	0.623114	0.736579	0.622191	0.735488
H3F3B	1.754053	4.869451	1.43E-06	2.00E-05	1.61E-06	2.20E-05
H6PD	-0.18784	-0.25294	0.8004	0.869598	0.799967	0.869127
HAAO	-0.00968	-0.01366	0.989106	0.992561	0.989085	0.992529
HABP4	-0.98058	-1.71448	0.086959	0.171651	0.086735	0.171067
HADHA	-1.26926	-4.37311	1.44E-05	0.000136	1.75E-05	0.00016
HAGH	-0.6003	-1.06071	0.289252	0.431719	0.28895	0.431406
HARS2	1.046256	2.975161	0.003047	0.011932	0.003206	0.012482
HAS3	0.035798	0.043223	0.965538	0.97929	0.965446	0.979197
HAT1	0.028485	0.036227	0.971113	0.981978	0.971042	0.981906
HBB	2.939557	3.136763	0.001792	0.007705	0.001735	0.007501
HBEGF	3.89994	5.494429	5.81E-08	1.21E-06	5.45E-08	1.16E-06
HBS1L	0.308898	0.88279	0.377705	0.516651	0.380314	0.518999
HBXIP	0.481984	0.578664	0.563034	0.686092	0.56199	0.685531
HBZ	-6.7157	-11.346	3.71E-27	8.71E-24	3.19E-27	7.50E-24
HCCS	-0.02381	-0.03967	0.968372	0.979947	0.968339	0.979949
HCFC1	-0.81895	-2.65855	0.008058	0.02636	0.008592	0.027608
HCFC1R1	-1.53665	-5.61803	2.96E-08	6.62E-07	4.22E-08	9.14E-07
HCG9	1.222105	2.317412	0.020818	0.055657	0.02081	0.055603
HCK	-0.5733	-0.61565	0.538362	0.664994	0.537132	0.663998
HCLS1	0.277857	0.635004	0.525669	0.654537	0.526465	0.655641
HCN2	-0.82341	-0.98113	0.326924	0.467887	0.325618	0.466629
HCP5	1.760663	2.663866	0.007933	0.026074	0.00783	0.025791
HCST	0.737502	2.059696	0.03986	0.093464	0.040861	0.095261
HDAC1	1.419296	4.400091	1.28E-05	0.000124	1.47E-05	0.000138
HDAC2	1.258401	2.785088	0.005521	0.01935	0.005592	0.019598
HDAC3	-0.62564	-1.19637	0.232025	0.365211	0.232036	0.365717
HDAC4	-0.61512	-0.854	0.393449	0.532448	0.392465	0.531274

HDAC6	0.973575	2.54504	0.011177	0.033912	0.01149	0.03464
HDGF	0.544241	1.296124	0.195433	0.317832	0.196533	0.319077
HDGFRP3	-0.10485	-0.17268	0.862965	0.913925	0.862812	0.913541
HDLBP	0.765811	1.120391	0.262997	0.401567	0.262128	0.400521
HECA	1.836013	4.263521	2.34E-05	0.000206	2.43E-05	0.000212
HECTD1	1.257852	1.321717	0.186768	0.307787	0.18541	0.305892
HELZ	-1.23463	-2.03311	0.042483	0.098069	0.042249	0.097626
HERC1	-0.76843	-0.82454	0.409961	0.547858	0.408543	0.546274
HERC2	0.496541	0.770386	0.441375	0.577041	0.440692	0.576148
HERC3	-0.61715	-0.77073	0.441173	0.576938	0.440018	0.575587
HERPUD1	-1.69196	-3.18626	0.001516	0.006717	0.001514	0.006693
HES1	4.497391	11.14888	2.34E-26	3.67E-23	3.07E-26	4.81E-23
HES2	-2.00902	-2.90131	0.003853	0.014394	0.003786	0.014292
HEXA	-0.09306	-0.26541	0.790786	0.862604	0.791895	0.863011
HEXB	-2.49776	-5.86518	7.43E-09	2.03E-07	7.98E-09	2.17E-07
HEY1	-1.12077	-1.62596	0.104485	0.198016	0.103838	0.197108
HEY2	3.186499	4.65285	4.03E-06	4.69E-05	3.87E-06	4.54E-05
HFE	-1.27301	-2.21284	0.027285	0.068578	0.027169	0.068358
HGD	0.762381	0.830086	0.406821	0.544747	0.40542	0.543025
HHEX	-0.52319	-0.9122	0.362029	0.501336	0.361681	0.501002
HIBCH	-1.05668	-1.56889	0.117202	0.216785	0.116563	0.215858
HIF1A	-0.30111	-0.78543	0.43251	0.568773	0.434273	0.570176
HINT1	-0.72883	-1.25778	0.208964	0.335198	0.208599	0.334841
HIP1	-1.32998	-1.54103	0.123839	0.226036	0.12279	0.224296
HIPK3	1.477261	3.419331	0.00067	0.003422	0.000688	0.003497
HIRIP3	-0.87932	-1.82708	0.068187	0.142244	0.068412	0.142398
HIST1H1A	1.839895	1.812483	0.070413	0.145853	0.069503	0.14435
HIST1H1C	1.744651	2.481831	0.013344	0.039029	0.013163	0.038642
HIST1H2AC	0.028394	0.041407	0.966986	0.979947	0.966925	0.979949
HIST1H2AE	1.109064	2.594733	0.009699	0.030349	0.009859	0.030749
HIST1H2AM	1.846372	2.171466	0.030288	0.074688	0.029836	0.073766
HIST1H2BD	1.312945	2.168646	0.030503	0.075139	0.030318	0.074801
HIST1H2BK	-0.01825	-0.03214	0.97437	0.982741	0.974353	0.982725
HIST1H2BL	0.807817	1.293835	0.196222	0.318589	0.195638	0.318249
HIST1H4B	1.54806	2.720805	0.006702	0.022645	0.006664	0.022575
HIST1H4C	0.604334	1.316951	0.188359	0.30974	0.188954	0.31041
HIST1H4J	-0.13235	-0.2521	0.801047	0.869618	0.801046	0.869306
HIST2H2BE	0.436569	0.730747	0.46522	0.601688	0.464767	0.601103
HIST3H2A	-1.55209	-1.56088	0.119081	0.219298	0.117903	0.217567
HIVEP1	0.796788	0.888415	0.374675	0.513852	0.373282	0.512241
HIVEP2	0.124674	0.396384	0.691963	0.793419	0.694237	0.794298

HK2	2.247817	5.340736	1.32E-07	2.46E-06	1.41E-07	2.63E-06
HKR1	0.008975	0.028034	0.977644	0.984768	0.977809	0.984934
HLA-C	0.842875	0.811174	0.417588	0.555367	0.41605	0.553678
HLA-DMA	-2.51047	-4.46322	9.65E-06	9.75E-05	9.53E-06	9.67E-05
HLA-DOA	-1.43587	-1.62948	0.103738	0.196917	0.102751	0.195518
HLA-DOB	0.494479	0.463285	0.643329	0.753275	0.642212	0.751968
HLA-DPA1	1.701942	3.616373	0.000324	0.001876	0.000329	0.001892
HLA-DPB1	-1.68944	-2.34393	0.019408	0.052484	0.019155	0.05192
HLA-DQA1	2.690647	3.049119	0.002397	0.009863	0.002328	0.009632
HLA-DQB1	-1.28572	-1.72729	0.084631	0.168189	0.083938	0.166955
HLA-DRB1	-1.13466	-0.81619	0.414719	0.552488	0.412943	0.550228
HLA-F	0.304611	0.382898	0.701932	0.799575	0.701221	0.799152
HLA-G	2.240851	2.804287	0.005207	0.018497	0.005094	0.018135
HLF	-1.47766	-1.71541	0.086788	0.171389	0.085911	0.169942
HM13	-2.73511	-4.235	2.65E-05	0.000228	2.57E-05	0.000223
HMG20A	-0.60384	-0.78038	0.435474	0.571233	0.434375	0.570176
HMGA1	2.701312	5.217304	2.51E-07	4.36E-06	2.51E-07	4.35E-06
HMGA2	2.304209	4.254014	2.44E-05	0.000212	2.42E-05	0.000212
HMGB1	0.943128	2.261588	0.024081	0.062158	0.024441	0.062885
HMGB3	0.292032	0.461048	0.644932	0.754212	0.644472	0.753789
HMGCL	0.443025	0.671742	0.502007	0.631709	0.501312	0.631274
HMGCR	0.350413	0.532442	0.594618	0.712935	0.594023	0.712585
HMGCS1	0.54944	1.064228	0.287655	0.429479	0.287722	0.429709
HMGCS2	2.333984	2.19285	0.028703	0.071604	0.02817	0.070351
HMGN3	1.032734	2.585784	0.009951	0.030933	0.010187	0.031603
HMGN4	-0.43743	-0.83815	0.40228	0.5398	0.4023	0.539869
HMOX1	1.078374	1.135414	0.256657	0.394082	0.255192	0.392475
HNF4A	1.430831	2.397898	0.016795	0.046958	0.016684	0.046675
HNMT	-0.43249	-0.70232	0.482756	0.616061	0.482224	0.615717
HNRPLL	0.451427	0.666198	0.505542	0.634628	0.504786	0.633849
HOMER1	-0.27705	-0.62665	0.531127	0.658683	0.531864	0.659559
HOMER2	0.357372	0.518082	0.604592	0.721397	0.603918	0.720592
HOMER3	-1.46727	-2.03868	0.041921	0.097058	0.041495	0.096406
HOOK1	2.899087	6.874771	1.57E-11	1.12E-09	1.73E-11	1.21E-09
HOOK2	1.618319	2.696462	0.007205	0.024121	0.007144	0.023932
HOXA2	0.798431	1.72273	0.085454	0.169437	0.085838	0.169869
HOXA4	-2.22171	-2.55451	0.01088	0.033119	0.010658	0.032654
HOXA5	-1.4472	-1.67881	0.093711	0.18155	0.092796	0.180479
HOXB13	0.592037	0.80638	0.420345	0.557927	0.419337	0.556747
HOXB2	0.626372	0.728822	0.466396	0.602711	0.465156	0.601296
HOXB4	1.993449	2.691154	0.00732	0.024399	0.00719	0.024019

HOXB7	0.759075	0.706188	0.480346	0.613819	0.478863	0.612924
HOXC9	-0.43944	-0.47054	0.638139	0.748503	0.637119	0.747482
HPCA	0.669337	0.810669	0.417878	0.555595	0.416648	0.554116
HPCAL1	-1.68663	-2.34875	0.019161	0.052019	0.018913	0.051442
HPGD	4.741674	5.736344	1.54E-08	3.73E-07	1.41E-08	3.52E-07
HPRT1	0.185749	0.244394	0.80701	0.873146	0.806571	0.872931
HPS1	3.877692	4.096257	4.78E-05	0.000374	4.53E-05	0.000359
HPS5	0.126404	0.179984	0.857226	0.910294	0.856949	0.91
HRAS	-0.28759	-0.65163	0.51489	0.644813	0.515654	0.64577
HS2ST1	1.871032	4.858156	1.52E-06	2.09E-05	1.65E-06	2.25E-05
HS3ST2	0.374834	0.51961	0.603528	0.720646	0.602772	0.720139
HS3ST3A1	1.475497	2.674535	0.007688	0.025392	0.007661	0.02536
HS3ST3B1	-0.9438	-1.46557	0.14329	0.252473	0.142693	0.251748
HS6ST1	0.603892	0.779084	0.436238	0.571917	0.435137	0.570631
HSBP1	-0.1842	-0.27843	0.780781	0.8562	0.78043	0.855815
HSD11B2	2.574828	3.433619	0.000637	0.00326	0.000619	0.003185
HSD17B2	-0.74146	-0.75675	0.449496	0.584731	0.448062	0.583512
HSD17B3	1.684077	2.147121	0.032185	0.078738	0.031764	0.077848
HSD17B4	3.449884	6.434934	2.53E-10	1.06E-08	2.50E-10	1.07E-08
HSF2	-0.80715	-1.56073	0.119117	0.219298	0.119161	0.219375
HSF2BP	-0.80585	-1.11526	0.265188	0.403883	0.264187	0.402489
HSF4	0.691315	1.173859	0.240919	0.375064	0.240487	0.374516
HSPA14	-0.91444	-0.99977	0.317827	0.459902	0.316388	0.458392
HSPA1L	0.858968	0.973287	0.330804	0.472003	0.329418	0.470312
HSPA5	-0.69616	-1.54128	0.123778	0.226036	0.124352	0.226357
HSPA8	0.525824	1.439508	0.15053	0.262034	0.152434	0.264272
HSPB2	-0.5424	-0.61979	0.535634	0.662669	0.534475	0.661699
HSPB3	1.258975	1.941348	0.052686	0.117468	0.052322	0.11688
HSPB7	-0.56021	-0.70482	0.481197	0.614521	0.480101	0.613552
HSPBP1	-4.08532	-5.59945	3.28E-08	7.24E-07	3.06E-08	6.95E-07
HSPD1	-2.90639	-5.70585	1.82E-08	4.35E-07	1.83E-08	4.39E-07
HSPH1	0.901436	1.240832	0.215154	0.342871	0.214182	0.34147
HTATIP2	0.390347	0.792948	0.428122	0.565112	0.428398	0.565422
HTATSFI	0.843579	2.69578	0.00722	0.024152	0.007688	0.025427
HTR2A	1.42256	2.904719	0.003812	0.01432	0.003833	0.014413
HTR2B	1.389755	1.873806	0.061445	0.131928	0.06087	0.131174
HTR3A	-1.38197	-2.04488	0.041304	0.095818	0.040946	0.095364
HYAL1	1.098033	1.533122	0.125775	0.228328	0.124998	0.227269
HYAL2	-0.82178	-1.86465	0.06272	0.134115	0.063199	0.134772
HYOU1	-0.99547	-1.39469	0.163628	0.278695	0.16277	0.277583
IARS	-2.78829	-5.26304	1.98E-07	3.52E-06	1.97E-07	3.50E-06

IBTK	-1.05874	-1.84506	0.065523	0.138222	0.065325	0.137866
ICA1	-0.21416	-0.28517	0.77561	0.851722	0.775115	0.851177
ICAM3	-0.89747	-1.49138	0.136388	0.243458	0.13597	0.242896
ICMT	1.959385	2.168814	0.03049	0.075139	0.030004	0.074103
ICOS	-0.2372	-0.34052	0.733582	0.823855	0.73309	0.8235
ICOSLG	0.246965	0.376595	0.706608	0.80277	0.706162	0.802457
ICT1	1.731016	3.014755	0.002681	0.010776	0.002661	0.010703
ID2	0.261625	0.348061	0.727917	0.819456	0.727323	0.818783
ID3	-0.66854	-1.12589	0.260665	0.398805	0.260201	0.398224
ID4	0.016909	0.031203	0.975118	0.983066	0.975111	0.983059
IDE	5.887631	6.514626	1.55E-10	7.35E-09	1.36E-10	6.75E-09
IDH2	1.791845	4.243363	2.55E-05	0.00022	2.66E-05	0.000228
IDH3A	-0.17052	-0.19177	0.847988	0.902319	0.847554	0.902208
IDH3G	-0.27091	-0.42057	0.674218	0.778581	0.673761	0.778053
IDI1	-0.24391	-0.47182	0.637224	0.747617	0.637268	0.747482
IDS	2.003707	3.533614	0.000442	0.002405	0.000438	0.002392
IDUA	2.60545	2.691465	0.007313	0.024394	0.007131	0.023905
IER2	1.399557	4.102581	4.65E-05	0.000366	5.15E-05	0.000397
IER5	-0.79888	-1.09734	0.272934	0.411811	0.271913	0.410666
IFI27	6.68868	10.03193	5.39E-22	3.62E-19	4.52E-22	3.03E-19
IFI30	0.282352	0.509642	0.610491	0.726959	0.610327	0.726764
IFI35	0.225685	0.603461	0.546431	0.672056	0.548135	0.673173
IFI44L	1.05137	1.163709	0.245006	0.380042	0.24362	0.378143
IFIH1	1.030111	1.998316	0.046135	0.104902	0.046166	0.104877
IFIT1	2.555918	2.372457	0.017986	0.049667	0.0176	0.04883
IFIT2	1.949512	2.721131	0.006695	0.022639	0.006583	0.022371
IFITM2	1.002825	2.118433	0.03455	0.083233	0.034729	0.083374
IFNAR1	0.233526	0.313454	0.754045	0.835064	0.753514	0.834672
IFNGR1	-2.18893	-3.14398	0.001749	0.007554	0.001714	0.007436
IFNGR2	-1.12131	-1.57213	0.116448	0.215645	0.115706	0.214586
IFRD2	-1.4699	-1.76231	0.078527	0.158984	0.077729	0.157808
IGBP1	-0.573	-0.83921	0.401686	0.539562	0.400832	0.538557
IGF1	1.198654	2.216885	0.027006	0.067967	0.026964	0.067916
IGF1R	-0.4032	-0.46199	0.644254	0.753795	0.643316	0.753072
IGF2R	-0.13305	-0.27006	0.787209	0.859239	0.787332	0.859373
IGFBP1	-0.71793	-1.09568	0.273661	0.412749	0.272898	0.411721
IGFBP2	2.727328	3.112123	0.001946	0.008236	0.001889	0.008048
IGFBP3	1.425771	1.746508	0.081236	0.163376	0.080446	0.161995
IGFBP5	1.040375	1.6354	0.102491	0.195024	0.102004	0.194332
IGFBP6	-0.72448	-0.77772	0.437041	0.572489	0.435653	0.571149
IGFBP7	1.506834	3.018211	0.002651	0.010695	0.002662	0.010703

IGHMBP2	-1.06674	-1.73135	0.083906	0.167028	0.083527	0.166347
IGSF3	2.926233	5.183006	2.99E-07	5.07E-06	2.94E-07	5.01E-06
IGSF8	-0.53652	-1.31205	0.190008	0.311488	0.191264	0.312676
IK	1.449624	4.754989	2.49E-06	3.12E-05	3.01E-06	3.69E-05
IKBKB	-2.45429	-4.46674	9.50E-06	9.64E-05	9.41E-06	9.59E-05
IL10RB	-0.43526	-0.72161	0.470818	0.605927	0.47034	0.60532
IL11RA	0.265781	0.394609	0.693272	0.79415	0.692765	0.793771
IL15	-1.51608	-2.86121	0.004368	0.015951	0.004363	0.015959
IL15RA	0.906275	1.633147	0.102964	0.195686	0.1028	0.195532
IL16	-0.30105	-0.34447	0.730614	0.8217	0.729879	0.82107
IL18	4.336334	10.6599	2.08E-24	1.95E-21	2.65E-24	2.49E-21
IL18R1	0.112652	0.135432	0.892316	0.933634	0.89203	0.933409
IL18RAP	1.121156	1.285266	0.199197	0.322657	0.197927	0.320999
IL1A	1.441	2.25836	0.024283	0.062527	0.024078	0.062043
IL1B	2.889681	2.817501	0.005	0.017925	0.004859	0.017498
IL1F5	-0.8268	-1.33645	0.18191	0.302233	0.181365	0.301634
IL1R1	1.030034	3.050719	0.002384	0.009824	0.002535	0.010316
IL1R2	2.665167	4.506171	7.94E-06	8.29E-05	7.78E-06	8.14E-05
IL1RAP	0.443903	0.920506	0.357679	0.497807	0.358067	0.498346
IL23A	2.090945	2.232152	0.025974	0.065918	0.025524	0.065196
IL27RA	0.427866	0.60929	0.542564	0.668778	0.541773	0.667697
IL2RA	1.743467	4.006992	6.93E-05	0.000509	7.15E-05	0.000525
IL2RG	-2.27516	-3.23212	0.001296	0.005892	0.001268	0.005768
IL4R	2.123932	5.3438	1.30E-07	2.44E-06	1.42E-07	2.63E-06
IL6ST	1.435629	2.928113	0.00354	0.013549	0.00356	0.013626
IL7R	0.615624	0.790012	0.429834	0.566545	0.428717	0.565563
ILF2	0.683524	1.937809	0.053117	0.118081	0.054385	0.1204
ILF3	-0.65923	-0.93817	0.348536	0.488845	0.347591	0.48781
ILK	-0.86941	-1.85075	0.064698	0.137011	0.064986	0.137459
ILVBL	-1.17126	-2.7339	0.006444	0.021948	0.00656	0.022309
IMMT	0.155281	0.342639	0.731991	0.822855	0.732377	0.823092
IMP4	-0.38599	-1.45674	0.145713	0.255733	0.150866	0.262133
IMPA1	-1.52043	-3.54497	0.000423	0.002325	0.000435	0.002382
IMPA2	-0.98547	-1.11066	0.26716	0.405835	0.265782	0.404264
IMPDH1	1.530596	4.128693	4.17E-05	0.000336	4.49E-05	0.000357
IMPDH2	-1.24012	-1.85063	0.064716	0.137011	0.064256	0.136161
ING1	-0.29516	-0.9483	0.343362	0.485793	0.347247	0.487712
ING3	0.034456	0.055052	0.956115	0.974148	0.956058	0.974173
ING5	2.187297	4.68464	3.47E-06	4.14E-05	3.56E-06	4.23E-05
INHBA	0.544576	1.207574	0.227688	0.35983	0.228409	0.36097
INHBB	1.729131	2.441566	0.014912	0.042633	0.014712	0.042188

INPP1	0.443281	0.675346	0.499717	0.630685	0.499031	0.630026
INPP5A	0.407278	0.890226	0.373702	0.512968	0.374364	0.513426
INPP5B	0.201445	0.290335	0.771661	0.848574	0.771239	0.84826
INPP5D	1.112115	2.295292	0.022062	0.05809	0.02216	0.058315
INPP5E	-3.6004	-4.6794	3.56E-06	4.24E-05	3.37E-06	4.04E-05
INPPL1	-1.93873	-3.07472	0.002203	0.009155	0.002172	0.009067
INSIG1	-1.61914	-2.03589	0.042201	0.097563	0.041687	0.09666
INSM1	1.085498	1.604976	0.109027	0.204725	0.108402	0.203714
INVS	-0.3671	-0.49208	0.622843	0.736443	0.622064	0.735488
IPO11	0.768164	2.258204	0.024293	0.062527	0.025157	0.0644
IPO8	1.069249	1.895511	0.058507	0.127188	0.058353	0.127001
IQCE	1.985982	2.922211	0.003607	0.01376	0.003547	0.013596
IQGAP1	-0.85045	-1.12674	0.260305	0.398438	0.259213	0.3971
IQGAP2	0.97557	1.757273	0.079383	0.160415	0.079238	0.160111
IQGAP3	1.373037	3.87083	0.00012	0.000803	0.00013	0.000858
IRAK1	-1.93587	-5.55697	4.14E-08	8.92E-07	4.88E-08	1.05E-06
IRAK2	-0.24302	-0.38026	0.70389	0.800262	0.703482	0.800064
IREB2	2.109493	2.885738	0.004046	0.015008	0.003967	0.014808
IRF1	0.383189	0.917712	0.35914	0.499288	0.360361	0.500404
IRF2	1.895807	4.504003	8.02E-06	8.32E-05	8.42E-06	8.66E-05
IRF3	1.046095	2.750443	0.006132	0.021082	0.006335	0.021653
IRF4	-1.63856	-3.33061	0.00092	0.00443	0.000926	0.004432
IRF5	0.270621	0.293412	0.769309	0.847574	0.768636	0.847032
IRF7	1.484802	1.835996	0.066855	0.140254	0.066156	0.139058
IRF8	0.82093	1.049638	0.294309	0.436494	0.293132	0.435238
IRX3	-2.02906	-2.76492	0.005869	0.020449	0.005762	0.020151
IRX5	1.266777	1.719556	0.086031	0.170343	0.085346	0.169108
ISG20	-0.98846	-2.26156	0.024083	0.062158	0.024354	0.062721
ISLR	0.195668	0.256688	0.797508	0.867057	0.797046	0.866755
ISYNA1	-0.75372	-1.55746	0.11989	0.220455	0.120172	0.220801
ITCH	0.292965	0.764636	0.44479	0.580376	0.446539	0.582173
ITGA10	4.328487	3.977199	7.83E-05	0.000563	7.40E-05	0.00054
ITGA2	0.609179	1.156442	0.247962	0.384121	0.247943	0.38409
ITGA6	1.314625	2.180935	0.029577	0.073351	0.029401	0.072997
ITGA7	-0.74776	-1.73758	0.0828	0.165389	0.083455	0.166309
ITGA8	-4.63575	-8.90771	6.23E-18	1.95E-15	6.14E-18	2.06E-15
ITGAE	-0.09292	-0.1611	0.872068	0.919993	0.871971	0.919925
ITGAV	2.340736	4.578801	5.69E-06	6.29E-05	5.71E-06	6.32E-05
ITGAX	0.161073	0.27292	0.785009	0.858232	0.784814	0.858019
ITGB1BP1	-1.02055	-1.86819	0.062224	0.133175	0.062131	0.133098
ITGB2	0.014052	0.034335	0.972622	0.982024	0.972699	0.982102

ITGB3	-0.59325	-0.8619	0.38909	0.527885	0.38821	0.527126
ITGB3BP	0.940073	1.937715	0.053128	0.118081	0.053302	0.11845
ITGB4	3.154614	5.794716	1.11E-08	2.81E-07	1.09E-08	2.84E-07
ITGB5	-1.07285	-2.77602	0.005675	0.019846	0.005853	0.020377
ITGB7	-4.99143	-7.72388	4.78E-14	6.07E-12	4.34E-14	5.67E-12
ITGB8	0.845315	1.359065	0.174638	0.293352	0.174086	0.292436
ITGBL1	0.86346	2.233806	0.025865	0.065817	0.026414	0.066745
ITIH2	-4.80516	-5.89898	6.12E-09	1.72E-07	5.58E-09	1.60E-07
ITIH4	1.126285	1.483108	0.138573	0.246235	0.137659	0.244935
ITM2A	-4.14394	-8.35938	4.43E-16	7.71E-14	4.51E-16	8.16E-14
ITM2C	0.286738	0.515632	0.606302	0.722887	0.606127	0.722678
ITPK1	-0.94918	-1.62636	0.1044	0.19795	0.104103	0.1974
ITPKA	1.089623	2.135497	0.033126	0.080711	0.033167	0.080728
ITPR1	-1.30904	-1.46263	0.144093	0.253642	0.142928	0.252068
ITPR2	0.270649	0.326354	0.744271	0.831291	0.743615	0.830756
ITPR3	1.357375	2.713552	0.006848	0.023074	0.006871	0.023151
ITSN2	1.596633	5.735998	1.54E-08	3.73E-07	2.19E-08	5.14E-07
IVD	1.273973	1.433755	0.152165	0.264097	0.150983	0.262239
IVNS1ABP	-1.55477	-2.01387	0.044471	0.101614	0.043964	0.100747
JAG2	-2.60335	-2.6672	0.007856	0.025892	0.007662	0.02536
JAK1	-0.85017	-1.03928	0.299095	0.441055	0.297834	0.439918
JAK2	0.057228	0.073262	0.941622	0.965661	0.94148	0.965515
JAK3	-0.61415	-0.99989	0.317769	0.459902	0.317189	0.459411
JAM3	-0.06637	-0.11297	0.910093	0.945507	0.910013	0.945461
JMJD1C	1.480781	2.316794	0.020852	0.055684	0.020666	0.055357
JPH3	0.538669	2.059613	0.039868	0.093464	0.042526	0.09812
JTB	-0.18257	-0.22436	0.822552	0.884262	0.8221	0.883776
JUN	2.626332	5.895734	6.24E-09	1.75E-07	6.58E-09	1.84E-07
JUNB	1.342008	3.088123	0.002108	0.008829	0.002151	0.009001
JUP	0.609197	0.710398	0.477734	0.611812	0.476513	0.610748
KAL1	1.972137	4.124007	4.25E-05	0.000341	4.31E-05	0.000345
KARS	-0.46288	-0.62957	0.529214	0.657669	0.528318	0.656729
KATNA1	-2.73519	-3.22499	0.001328	0.006015	0.001288	0.00585
KATNB1	-2.82758	-3.23937	0.001264	0.005753	0.001224	0.005604
KCMF1	2.619226	5.959379	4.33E-09	1.31E-07	4.59E-09	1.36E-07
KCNA3	2.582252	2.502054	0.012613	0.037262	0.012324	0.03658
KCNA5	-0.92951	-1.33643	0.181919	0.302233	0.181084	0.301379
KCNAB1	2.673365	5.529923	4.79E-08	1.02E-06	4.89E-08	1.05E-06
KCNAB2	1.357708	2.050058	0.040794	0.095059	0.040461	0.094564
KCNB1	1.5505	2.208393	0.027595	0.069279	0.027292	0.068557
KCND1	2.49154	6.31658	5.22E-10	1.93E-08	5.91E-10	2.15E-08

KCNE3	-2.34088	-2.30521	0.021496	0.05701	0.021075	0.056247
KCNF1	-0.57079	-0.75825	0.448599	0.584049	0.447565	0.583188
KCNG1	-0.16249	-0.26533	0.790843	0.862604	0.790602	0.862442
KCNH2	-1.89915	-3.07699	0.002187	0.009095	0.002159	0.009027
KCNJ10	3.573947	8.531007	1.19E-16	2.55E-14	1.38E-16	3.25E-14
KCNJ15	3.427353	7.014828	6.25E-12	5.16E-10	6.40E-12	5.37E-10
KCNJ3	1.379733	1.419925	0.156151	0.268929	0.154852	0.267524
KCNJ8	3.738791	5.104667	4.46E-07	7.18E-06	4.21E-07	6.86E-06
KCNK1	1.206196	1.828066	0.068038	0.14206	0.067588	0.14131
KCNK3	2.311007	3.914849	0.000101	0.000691	9.93E-05	0.000687
KCNK5	-0.04579	-0.07895	0.937097	0.963541	0.937047	0.963492
KCNK6	-0.59103	-0.90201	0.367414	0.506554	0.366652	0.505652
KCNMA1	-0.36656	-1.11093	0.267043	0.405788	0.270246	0.408936
KCNMB1	2.810408	5.500911	5.61E-08	1.18E-06	5.63E-08	1.19E-06
KCNMB2	1.642896	3.079101	0.002171	0.009056	0.002167	0.009055
KCNMB3	1.992259	3.539944	0.000431	0.002363	0.000428	0.002347
KCNMB4	0.967664	1.494993	0.135444	0.242321	0.134849	0.241628
KCNN3	0.194724	0.393851	0.693831	0.79427	0.693993	0.794298
KCNN4	1.852134	3.370267	0.000799	0.003942	0.000795	0.003938
KCNS1	-1.5298	-1.45584	0.145963	0.255979	0.144623	0.254295
KCNS3	0.084935	0.11044	0.912097	0.946744	0.91189	0.946568
KCTD15	-0.28806	-0.52449	0.600131	0.717714	0.59999	0.717545
KCTD5	2.65691	3.760873	0.000186	0.001173	0.00018	0.001142
KDELR1	-0.75434	-2.45872	0.014226	0.041019	0.015053	0.042878
KDELR2	3.138145	5.737673	1.53E-08	3.73E-07	1.50E-08	3.66E-07
KDR	-0.62617	-0.89492	0.371188	0.510262	0.370261	0.509285
KEAP1	0.503573	0.780939	0.435148	0.571106	0.43446	0.570176
KEL	0.334107	0.380564	0.703662	0.800262	0.702857	0.799799
KHDRBS1	-2.75471	-9.16047	8.16E-19	3.84E-16	1.55E-18	6.06E-16
KHDRBS3	1.913734	3.286951	0.001072	0.005021	0.001061	0.004979
KHK	0.551511	0.793301	0.427917	0.565105	0.427036	0.5641
KIAA0182	1.15978	3.090273	0.002093	0.008782	0.002183	0.009105
KIAA0196	1.012281	1.410916	0.158789	0.272277	0.157931	0.271248
KIAA0319	0.624977	1.034372	0.30138	0.442652	0.300853	0.442431
KIAA0368	0.630327	0.990479	0.322341	0.464214	0.321654	0.463734
KIAA0528	2.857575	7.068139	4.39E-12	3.75E-10	5.02E-12	4.29E-10
KIAA0556	0.589415	1.4316	0.152781	0.264913	0.153905	0.266207
KIAA0664	0.148708	0.172987	0.86272	0.913925	0.862342	0.913541
KIAA0753	0.933454	1.99675	0.046305	0.105239	0.046551	0.105645
KIAA0776	0.501145	0.533225	0.594076	0.712467	0.592949	0.711842
KIAA0907	-1.02359	-1.44574	0.148774	0.259553	0.147962	0.258713

KIAA0922	-0.53233	-0.92158	0.357119	0.497535	0.356745	0.496948
KIAA1033	2.032882	5.440722	7.75E-08	1.56E-06	8.74E-08	1.75E-06
KIAA1217	-3.69625	-4.08453	5.02E-05	0.000389	4.77E-05	0.000373
KIAA1324	0.01004	0.009984	0.992037	0.9941	0.992011	0.994127
KIAA1407	1.586079	1.98708	0.047369	0.107294	0.046813	0.106102
KIAA1632	0.528576	1.228788	0.219635	0.348941	0.220621	0.350311
KIAA1704	0.636778	1.518647	0.12938	0.23361	0.13033	0.235145
KIAA1715	-0.20411	-0.23901	0.811181	0.876852	0.81067	0.876299
KIF11	-0.33287	-0.68088	0.496208	0.628281	0.496495	0.628233
KIF1C	1.443874	4.03514	6.17E-05	0.000462	6.70E-05	0.000498
KIF21A	1.119226	2.474528	0.013618	0.039654	0.013758	0.040028
KIF21B	1.656001	2.657133	0.008091	0.026409	0.008009	0.026194
KIF23	-0.14049	-0.28039	0.779275	0.854914	0.779366	0.854996
KIF2C	-0.47526	-1.1217	0.26244	0.400998	0.263558	0.401791
KIF3C	0.354886	0.578951	0.56284	0.686092	0.562378	0.685827
KIF5B	0.176367	0.358772	0.719892	0.812754	0.720056	0.812939
KIF5C	0.976669	2.239933	0.025462	0.065012	0.025749	0.065558
KIFAP3	0.682053	1.097535	0.272849	0.411811	0.272238	0.411025
KIFC1	-4.33964	-4.20959	2.95E-05	0.00025	2.78E-05	0.000237
KIN	-0.47495	-0.53705	0.591433	0.71032	0.590367	0.709105
KIT	0.146233	0.232687	0.816084	0.880828	0.815841	0.880472
KLC2	2.288291	3.362625	0.000821	0.004038	0.000804	0.003975
KLF10	-1.13637	-1.82538	0.068443	0.142526	0.068087	0.141973
KLF11	1.076352	1.946348	0.052081	0.116507	0.051974	0.116378
KLF12	-3.06153	-4.56342	6.11E-06	6.68E-05	5.88E-06	6.48E-05
KLF3	2.685587	4.252383	2.45E-05	0.000213	2.39E-05	0.00021
KLF4	2.426443	4.499506	8.19E-06	8.44E-05	8.13E-06	8.42E-05
KLF5	0.899741	1.494803	0.135493	0.242321	0.135076	0.241758
KLF6	1.242374	3.077035	0.002186	0.009095	0.002254	0.009374
KLF7	0.955487	2.937439	0.003437	0.013229	0.003667	0.013944
KLF8	3.534208	4.542994	6.71E-06	7.25E-05	6.37E-06	6.95E-05
KLHDC3	-2.00674	-4.99167	7.86E-07	1.21E-05	8.47E-07	1.29E-05
KLHDC4	1.012843	2.011777	0.044691	0.102065	0.044769	0.102192
KLHL3	2.355404	2.657945	0.008072	0.026365	0.007891	0.0259
KLHL5	0.944719	1.59599	0.111019	0.207224	0.110678	0.206834
KLHL7	-1.42064	-3.86131	0.000125	0.000829	0.000134	0.000881
KLHL8	-1.27147	-4.48467	8.76E-06	8.93E-05	1.08E-05	0.000108
KLHL9	1.682008	3.18593	0.001518	0.006718	0.001517	0.006693
KLK11	4.65156	5.474636	6.46E-08	1.33E-06	5.94E-08	1.23E-06
KLK6	2.152046	2.565613	0.010542	0.032384	0.010334	0.031985
KLK7	-5.27035	-4.53364	7.01E-06	7.52E-05	6.50E-06	7.07E-05

KLKB1	1.105844	2.785286	0.005518	0.01935	0.005671	0.019863
KLRB1	1.356659	1.541093	0.123823	0.226036	0.122751	0.224296
KLRC3	-1.72519	-1.79962	0.072425	0.149137	0.071541	0.147799
KLRG1	0.515877	1.303663	0.19285	0.314612	0.194331	0.31678
KNDC1	1.414089	1.81291	0.070347	0.145831	0.069666	0.144498
KPNA4	0.269027	0.420597	0.674201	0.778581	0.673756	0.778053
KPNA6	-2.60106	-3.49884	0.000502	0.002675	0.000488	0.002616
KPNB1	-0.54703	-1.8462	0.065357	0.137995	0.067888	0.14181
KPTN	0.455918	0.495738	0.620262	0.73413	0.619215	0.733304
KRAS	-0.25459	-0.32381	0.746198	0.832206	0.745595	0.831941
KRT10	3.301812	4.97408	8.58E-07	1.30E-05	8.22E-07	1.27E-05
KRT13	1.456955	1.800145	0.072342	0.14906	0.07161	0.147876
KRT14	2.03411	2.245393	0.025107	0.06435	0.024681	0.063422
KRT15	3.10909	3.17609	0.00157	0.006895	0.001516	0.006693
KRT16	3.723929	3.995866	7.25E-05	0.000531	6.89E-05	0.000509
KRT19	3.224876	3.92537	9.67E-05	0.000667	9.26E-05	0.000646
KRT20	0.583297	0.602948	0.546772	0.672056	0.545517	0.671185
KRT7	0.600988	0.672706	0.501394	0.631275	0.500151	0.630471
KRT8	0.871214	1.845079	0.06552	0.138222	0.065795	0.138609
KRTCAP2	-0.73857	-2.31337	0.021041	0.056061	0.022007	0.058011
KTN1	1.658143	3.033173	0.002525	0.010292	0.002515	0.010289
KYNU	0.69995	1.138629	0.255314	0.392791	0.254741	0.392167
LICAM	1.458536	3.754533	0.000191	0.001195	0.000201	0.001259
LACTB	0.411566	0.741633	0.458601	0.594764	0.458389	0.594653
LACTB2	0.882056	1.530783	0.126352	0.229199	0.126063	0.228674
LAD1	2.14754	3.898227	0.000108	0.000732	0.000107	0.000727
LAIR1	-1.07913	-3.55318	0.000411	0.002273	0.00046	0.002493
LAIR2	1.06746	1.648476	0.09978	0.190751	0.099263	0.189959
LAMA2	1.597159	2.911717	0.003728	0.014132	0.003715	0.014068
LAMA3	4.996295	6.38435	3.46E-10	1.34E-08	3.12E-10	1.28E-08
LAMA5	1.163924	3.158007	0.001669	0.007275	0.00175	0.007538
LAMB1	0.685202	1.563654	0.118428	0.218536	0.119127	0.219375
LAMC1	-0.36161	-0.6435	0.520145	0.649146	0.519908	0.648703
LAMC3	1.454919	2.11992	0.034424	0.083056	0.034092	0.082424
LAMP1	1.054833	1.275432	0.202652	0.327645	0.201457	0.325937
LAMP2	3.102505	6.562742	1.15E-10	5.71E-09	1.19E-10	6.13E-09
LANCL1	2.468605	3.796921	0.000161	0.001028	0.000158	0.00101
LANCL2	2.107602	2.564386	0.010579	0.032476	0.010376	0.032062
LAPTM5	1.842465	1.822009	0.068953	0.143334	0.068056	0.141973
LARGE	0.090184	0.215363	0.829558	0.889961	0.829978	0.890209
LARS2	-1.5234	-3.29605	0.001039	0.004896	0.001053	0.004953

LASP1	-1.10261	-2.55953	0.010726	0.032789	0.010891	0.033154
LASS6	1.884572	2.799443	0.005284	0.018701	0.005205	0.018421
LATS2	-1.4516	-2.01959	0.043871	0.100865	0.043435	0.100021
LBR	0.619685	1.168664	0.243005	0.377377	0.242958	0.377295
LCAT	-0.43731	-1.67492	0.094472	0.182557	0.098872	0.189441
LCK	-2.14588	-2.93769	0.003434	0.013229	0.003365	0.013006
LCN2	-0.25643	-0.26387	0.791968	0.86323	0.791329	0.862734
LCP1	-0.63199	-1.07739	0.281743	0.421985	0.281315	0.421211
LCP2	2.138554	5.720711	1.68E-08	4.02E-07	1.91E-08	4.54E-07
LDB2	-0.35478	-0.47793	0.632872	0.744182	0.632118	0.74401
LDB3	0.718899	1.890123	0.059225	0.128275	0.060232	0.130096
LDHA	-0.57177	-0.98773	0.323686	0.464946	0.323302	0.464401
LDHB	-2.37677	-2.96094	0.003189	0.012396	0.003112	0.012158
LDLR	-0.05167	-0.11716	0.906774	0.94372	0.906944	0.943896
LEFTY2	-0.67505	-1.0593	0.289891	0.432262	0.289202	0.431645
LEMD3	-1.84626	-2.91416	0.0037	0.014035	0.003652	0.013897
LEPR	1.670022	4.021949	6.51E-05	0.000481	6.79E-05	0.000503
LEPRE1	1.857095	2.436504	0.015121	0.043024	0.014885	0.042528
LEPREL1	-0.68996	-1.05229	0.29309	0.435512	0.292321	0.434651
LEPROTL1	-4.97607	-5.70228	1.86E-08	4.41E-07	1.69E-08	4.08E-07
LETM1	1.12437	2.238125	0.02558	0.065199	0.025636	0.065355
LFNG	2.706092	4.343437	1.65E-05	0.000152	1.61E-05	0.000149
LGALS2	1.446494	1.852792	0.064405	0.136537	0.063757	0.135531
LGALS3	-1.27319	-3.15545	0.001683	0.007311	0.001737	0.007506
LGALS3BP	1.046646	1.824709	0.068544	0.14261	0.068341	0.14234
LGALS4	-1.6031	-1.79132	0.073747	0.151454	0.07291	0.149968
LGALS9	1.768308	3.577797	0.000375	0.002108	0.000377	0.002136
LGI4	2.229992	5.081562	5.01E-07	8.01E-06	5.25E-07	8.39E-06
LGMN	-3.24689	-6.80665	2.43E-11	1.56E-09	2.52E-11	1.64E-09
LGR5	-3.83581	-3.55826	0.000403	0.002236	0.000385	0.002167
LHFP	0.720328	1.225466	0.220882	0.350372	0.220465	0.350181
LHFPL2	2.129753	2.596201	0.009658	0.030261	0.009469	0.029787
LIAS	-0.761	-2.24983	0.024822	0.063717	0.025717	0.065513
LIFR	-1.78909	-3.38672	0.000754	0.003749	0.000753	0.003764
LIG1	1.025968	1.29379	0.196237	0.318589	0.195123	0.317658
LIG3	0.8385	1.447588	0.148256	0.259006	0.147932	0.258713
LIG4	1.898544	4.251979	2.46E-05	0.000213	2.53E-05	0.00022
LILRB2	0.817999	0.880983	0.378681	0.517685	0.377242	0.516179
LILRB3	1.095275	2.762493	0.005913	0.020539	0.006076	0.020976
LILRB4	5.040443	6.068979	2.29E-09	7.41E-08	2.07E-09	6.85E-08
LIMD1	-1.69317	-3.19514	0.001471	0.00656	0.001469	0.00654

LIMK1	1.149237	1.425615	0.154501	0.266969	0.153449	0.265639
LIMK2	2.264051	3.933914	9.34E-05	0.000651	9.22E-05	0.000644
LIMS1	0.02236	0.055185	0.95601	0.974148	0.956141	0.974173
LIMS3	0.353065	0.456083	0.648496	0.75773	0.64771	0.757073
LIN7A	-0.92882	-1.61119	0.107666	0.202655	0.107396	0.202147
LIPA	0.326398	0.533644	0.593786	0.712301	0.593354	0.711965
LIPC	-0.61996	-0.99602	0.319644	0.461581	0.319023	0.46093
LIPG	5.218865	5.028126	6.56E-07	1.02E-05	6.02E-07	9.40E-06
LITAF	-1.45789	-2.14732	0.032169	0.078738	0.031861	0.078034
LMAN1	1.254794	3.22631	0.001322	0.006	0.001376	0.006199
LMCD1	2.169047	5.080534	5.04E-07	8.03E-06	5.32E-07	8.45E-06
LMLN	0.347833	0.559741	0.575865	0.696417	0.57538	0.695905
LMNA	1.022573	2.061289	0.039707	0.093265	0.039807	0.093547
LMNB2	1.844624	2.463961	0.014021	0.040579	0.013806	0.040128
LMO7	-0.18996	-0.32389	0.746132	0.832206	0.745915	0.831941
LMOD1	0.675632	1.731155	0.08394	0.167028	0.085037	0.168568
LNPEP	-1.2462	-1.58643	0.113171	0.210655	0.112287	0.209425
LOC283174	-2.14018	-1.89193	0.058983	0.127944	0.058105	0.126666
LOC285033	0.196608	0.283969	0.776532	0.852535	0.776122	0.852085
LOXL2	0.850775	0.834492	0.404337	0.541883	0.402805	0.540138
LPHN3	1.538183	3.353869	0.000847	0.004147	0.000861	0.004201
LPIN2	-1.70902	-4.94253	1.00E-06	1.47E-05	1.15E-06	1.67E-05
LPL	-1.39661	-2.49925	0.012713	0.037478	0.012664	0.037411
LPP	0.277998	0.876533	0.381092	0.519772	0.384708	0.523944
LPPR2	-4.21562	-4.94605	9.85E-07	1.45E-05	9.19E-07	1.38E-05
LPXN	0.489455	0.678894	0.497468	0.628859	0.496571	0.628233
LRBA	-2.0834	-2.04799	0.040997	0.095436	0.040342	0.094332
LRCH3	2.233766	2.845069	0.004592	0.01668	0.004493	0.016369
LRCH4	1.868362	5.117099	4.19E-07	6.79E-06	4.71E-07	7.56E-06
LRFN3	0.097701	0.235349	0.814019	0.879312	0.814498	0.879426
LRMP	-3.13958	-3.32664	0.000933	0.00447	0.0009	0.004345
LRP11	2.734434	4.3876	1.35E-05	0.000129	1.32E-05	0.000127
LRP3	2.450764	6.460124	2.17E-10	9.35E-09	2.53E-10	1.07E-08
LRP4	2.440471	2.700036	0.007129	0.023917	0.006962	0.023404
LRP5	0.425219	0.915465	0.360317	0.5002	0.360899	0.500683
LRPAP1	0.718113	1.577129	0.115295	0.213677	0.115816	0.214643
LRPPRC	-1.2119	-1.34437	0.179337	0.299084	0.178064	0.297617
LRRC17	0.178689	0.308079	0.758129	0.838797	0.757941	0.838588
LRRFIP1	-1.64631	-3.77929	0.000173	0.001098	0.000178	0.001128
LRRFIP2	0.129738	0.222338	0.824126	0.885347	0.82398	0.88519
LRRK2	-1.53778	-2.98127	0.002987	0.011749	0.002991	0.011812

LRSAM1	-1.4329	-2.0866	0.037347	0.088698	0.036996	0.087953
LSAMP	-0.76588	-1.01914	0.308548	0.450505	0.307449	0.44918
LSM1	0.656926	0.938865	0.348179	0.488636	0.347244	0.487712
LSM10	0.806458	2.063224	0.039522	0.092971	0.040217	0.094179
LSM11	-0.0701	-0.25722	0.797094	0.867009	0.799425	0.868739
LSM3	0.484847	0.962973	0.33595	0.477462	0.336131	0.477286
LSM4	-1.21288	-3.11202	0.001947	0.008236	0.002019	0.008512
LSM5	0.434534	1.406827	0.159998	0.27365	0.163452	0.278241
LSM6	-2.36845	-4.29597	2.03E-05	0.000183	2.01E-05	0.000181
LSM7	0.970923	1.679937	0.093492	0.181433	0.093234	0.181
LSS	0.357042	0.48512	0.627769	0.740777	0.627019	0.740124
LST1	0.094708	0.275195	0.783261	0.857319	0.784486	0.858019
LTA4H	2.43594	3.975368	7.89E-05	0.000565	7.73E-05	0.000556
LTB	-0.26204	-0.5002	0.617121	0.732257	0.617125	0.732446
LTBP1	-1.41728	-2.33225	0.020019	0.053795	0.019877	0.053569
LTBR	0.17256	0.237971	0.811985	0.877519	0.811595	0.877098
LTF	4.186523	3.93975	9.12E-05	0.00064	8.63E-05	0.000611
LUM	-0.66343	-1.23592	0.216973	0.345569	0.21688	0.34542
LUZP1	2.737381	5.297292	1.65E-07	3.00E-06	1.66E-07	3.00E-06
LY6E	1.134649	1.944661	0.052284	0.116787	0.052082	0.11651
LY6G5C	1.027057	1.914874	0.055985	0.123489	0.055935	0.123425
LY75	1.659824	3.111549	0.00195	0.008241	0.001946	0.008248
LY9	2.239283	3.034683	0.002512	0.010251	0.002458	0.010088
LY96	-1.40674	-3.84155	0.000135	0.000883	0.000145	0.000939
LYN	3.064435	3.852266	0.00013	0.000851	0.000125	0.000826
LYNX1	-1.56072	-2.41109	0.016205	0.045526	0.016043	0.045096
LYPLA2	-0.13272	-0.18518	0.85315	0.906785	0.852851	0.906468
LYPLAL1	0.421033	0.591221	0.554596	0.679687	0.553793	0.678704
LYZ	1.959047	2.312977	0.021062	0.056087	0.020712	0.055406
M6PR	0.391642	0.496064	0.620031	0.734119	0.619165	0.733304
MAD1L1	0.994856	1.082368	0.279525	0.419466	0.278089	0.418028
MAD2L1	-0.15527	-0.35711	0.721137	0.813963	0.721673	0.814278
MADCAM1	0.709408	0.946778	0.344134	0.486299	0.343045	0.485635
MADD	-0.22243	-0.37247	0.709677	0.805222	0.709397	0.804872
MAF	-0.64932	-0.58508	0.558714	0.682776	0.557359	0.681652
MAFB	0.749061	0.923566	0.356085	0.49647	0.354845	0.494888
MAG	0.993907	0.864101	0.387879	0.527192	0.386212	0.525687
MAGEA10	-1.90312	-1.89188	0.058991	0.127944	0.058176	0.126762
MAGED2	0.964817	1.893163	0.058819	0.12769	0.058882	0.127885
MAGEF1	-0.17485	-0.22981	0.818315	0.882244	0.8179	0.882192
MAG11	0.935961	2.232345	0.025962	0.065918	0.02633	0.066569

MAGOH	1.288689	2.114098	0.03492	0.083823	0.03471	0.083374
MAL	-4.44061	-5.43857	7.84E-08	1.57E-06	7.24E-08	1.48E-06
MALT1	-0.50784	-0.74016	0.459491	0.595664	0.458665	0.594819
MAMDC2	-3.42627	-5.82673	9.24E-09	2.44E-07	8.93E-09	2.40E-07
MAN1A1	-0.64757	-1.58126	0.114348	0.212174	0.115367	0.214234
MAN1A2	1.313244	1.79101	0.073797	0.151454	0.073174	0.150379
MAN1B1	-2.97428	-4.87316	1.41E-06	1.99E-05	1.37E-06	1.94E-05
MAN2A2	-0.96668	-1.74089	0.082218	0.164564	0.082069	0.164211
MAN2C1	-1.56979	-1.91032	0.05657	0.124533	0.055923	0.123425
MANBA	4.809741	4.995342	7.72E-07	1.19E-05	7.13E-07	1.10E-05
MAOA	3.591598	5.244367	2.18E-07	3.82E-06	2.07E-07	3.67E-06
MAOB	2.039891	3.221111	0.001346	0.00609	0.001325	0.006
MAP1A	-0.53818	-0.7279	0.466958	0.603106	0.465978	0.602171
MAP2K1	-2.86532	-3.87898	0.000117	0.000781	0.000113	0.000753
MAP2K3	-0.47309	-1.01754	0.309306	0.451191	0.309887	0.451929
MAP2K4	1.083381	1.322983	0.186347	0.307308	0.185197	0.305892
MAP2K5	-0.58988	-0.97444	0.330232	0.471559	0.329698	0.470568
MAP3K11	0.51721	0.613315	0.539902	0.66637	0.5388	0.665313
MAP3K14	2.661533	2.975531	0.003043	0.011928	0.002958	0.011704
MAP3K4	-0.33646	-0.45597	0.648579	0.75773	0.647861	0.757073
MAP3K6	-0.89278	-0.91123	0.362542	0.501751	0.361024	0.500683
MAP3K7	-0.49269	-1.01832	0.308938	0.450818	0.309311	0.451479
MAP4	-0.36913	-0.84417	0.398912	0.537216	0.399823	0.537981
MAP4K1	0.186887	0.389889	0.696758	0.796391	0.697009	0.796291
MAP4K2	-0.29118	-0.92594	0.354853	0.495193	0.358606	0.498801
MAP4K3	2.068755	3.496506	0.000506	0.002692	0.0005	0.002664
MAP4K4	-2.59831	-4.78269	2.18E-06	2.80E-05	2.16E-06	2.83E-05
MAP4K5	-0.30067	-0.60872	0.542939	0.668889	0.543166	0.668818
MAPK1	-1.80671	-2.1767	0.029894	0.073947	0.029459	0.073095
MAPK10	-0.41264	-0.72042	0.47155	0.606371	0.471234	0.605798
MAPK11	-0.70697	-1.03494	0.301113	0.442437	0.300235	0.442214
MAPK14	-0.28738	-0.42666	0.669781	0.775554	0.66924	0.775118
MAPK4	-3.21762	-4.8631	1.48E-06	2.05E-05	1.42E-06	1.99E-05
MAPK6	-2.60702	-3.0243	0.002599	0.010521	0.002528	0.010309
MAPK7	0.362778	0.662367	0.507991	0.636852	0.507836	0.63664
MAPK8IP3	-0.29267	-0.50708	0.612287	0.728729	0.612014	0.728219
MAPK9	1.36927	1.699655	0.089716	0.175921	0.088898	0.174601
MAPKAP1	-1.33384	-2.04235	0.041555	0.096306	0.041234	0.095893
MAPKAPK2	0.895685	2.175703	0.029968	0.074054	0.030417	0.07493
MAPKAPK3	1.368247	3.387317	0.000752	0.003745	0.00078	0.003874
MAPKAPK5	-0.11216	-0.23503	0.814263	0.879374	0.814431	0.879426

MAPRE1	0.017573	0.04985	0.960259	0.976418	0.96047	0.976389
MAPRE2	-0.97606	-1.87542	0.061222	0.131691	0.061237	0.131663
MAPRE3	0.456883	0.7236	0.469594	0.604683	0.468985	0.604122
MAPT	2.283156	3.34971	0.00086	0.004184	0.000841	0.004119
MARCKS	2.914201	5.948015	4.62E-09	1.37E-07	4.70E-09	1.38E-07
MARCKSL1	-0.81623	-1.64108	0.101307	0.193004	0.101473	0.193477
MARK3	-2.79118	-3.54581	0.000422	0.00232	0.000408	0.002276
MARS	0.825101	1.863084	0.06294	0.134342	0.063405	0.135087
MARVELD3	0.986602	1.460466	0.144687	0.254217	0.14398	0.253639
MAT2B	-1.15159	-2.87599	0.004171	0.015352	0.004289	0.015738
MATN2	-0.70619	-1.13688	0.256043	0.393593	0.255438	0.392596
MAX	0.960599	1.309521	0.190861	0.312262	0.189901	0.311205
MBD1	0.926687	1.041699	0.297972	0.439707	0.296576	0.438485
MBD2	1.598816	3.925876	9.65E-05	0.000667	0.000101	0.000695
MBD3	0.091769	0.131861	0.895139	0.935339	0.89494	0.93513
MBD4	0.734165	0.889322	0.374188	0.513484	0.372926	0.511901
MBIP	0.050116	0.080408	0.93594	0.962774	0.935857	0.962689
MBNL1	0.274432	0.52021	0.60311	0.72054	0.603092	0.720191
MBNL2	1.023238	1.934014	0.053583	0.118921	0.053562	0.118802
MBNL3	1.278257	1.74504	0.081492	0.1634	0.080834	0.162433
MBP	0.294045	0.330266	0.741315	0.82858	0.740593	0.827825
MBTPS1	-0.85166	-2.23988	0.025465	0.065012	0.026049	0.066052
MCART1	-0.54212	-0.72485	0.468828	0.604283	0.467827	0.603837
MCFD2	0.15701	0.322921	0.746868	0.832206	0.747045	0.832411
MCL1	0.426059	1.051531	0.29344	0.435618	0.294874	0.437078
MCM3	-2.7477	-5.75499	1.38E-08	3.44E-07	1.42E-08	3.53E-07
MCM6	-0.14722	-0.17486	0.86125	0.913329	0.860877	0.91314
MCM7	-3.18914	-3.90586	0.000105	0.000712	0.0001	0.000692
MCRS1	-0.01425	-0.03291	0.97376	0.98254	0.973814	0.982725
MCTS1	0.363308	0.569458	0.569259	0.691527	0.568705	0.690854
MDH1	0.748497	0.911992	0.362141	0.501343	0.360883	0.500683
MDH2	-1.7709	-5.92613	5.24E-09	1.50E-07	7.10E-09	1.96E-07
MDK	-1.02559	-1.66751	0.095937	0.184651	0.095535	0.184249
MDM2	-1.47808	-3.10153	0.002016	0.008482	0.002035	0.008569
MDM4	1.463416	2.620652	0.008999	0.028598	0.008962	0.028518
ME2	-0.11743	-0.28666	0.774471	0.850669	0.775088	0.851177
ME3	1.438405	1.890409	0.059187	0.128251	0.058597	0.127385
MED12	4.588337	6.854323	1.79E-11	1.24E-09	1.64E-11	1.17E-09
MED19	-0.74126	-0.84478	0.398574	0.536948	0.39723	0.535259
MED28	-0.96357	-2.0739	0.038516	0.091152	0.038748	0.091516
MED4	-0.56453	-0.69409	0.487893	0.619422	0.486767	0.618964

MED6	-0.26316	-0.63231	0.527428	0.656143	0.528497	0.656778
MEF2A	2.451535	3.247538	0.001229	0.005637	0.001198	0.005513
MEF2C	-0.34597	-0.5949	0.552139	0.677029	0.551811	0.676627
MEF2D	0.443218	0.86545	0.387139	0.526643	0.387241	0.526173
MEG3	1.37764	2.885949	0.004043	0.015008	0.004076	0.015072
MEIS2	2.918883	4.395941	1.31E-05	0.000125	1.26E-05	0.000122
MEN1	-1.23429	-1.37563	0.16945	0.286132	0.168207	0.284584
MEOX1	-0.64979	-1.00573	0.314952	0.457016	0.314222	0.456238
MERTK	0.669947	1.083712	0.278929	0.41884	0.278333	0.418078
MESP1	-1.38174	-1.75597	0.079605	0.160784	0.078866	0.159565
MEST	-0.5201	-0.86244	0.38879	0.527668	0.388279	0.527126
MET	1.731316	3.41503	0.000681	0.003467	0.000683	0.003483
METAP2	-0.77843	-2.72158	0.006686	0.022625	0.007265	0.024252
MFAP1	-1.54977	-2.05023	0.040778	0.095059	0.040316	0.094318
MFAP3	-2.14051	-2.73754	0.006374	0.021773	0.006246	0.021398
MFAP4	-2.04433	-4.97405	8.58E-07	1.30E-05	9.17E-07	1.38E-05
MFGE8	1.722893	5.053684	5.77E-07	9.05E-06	6.70E-07	1.04E-05
MFHAS1	0.023687	0.035165	0.97196	0.982024	0.971911	0.982028
MF12	1.707174	2.125858	0.033924	0.082103	0.033472	0.081297
MFN2	0.005643	0.010948	0.991269	0.993791	0.99127	0.993791
MFNG	-1.22056	-2.5579	0.010776	0.032909	0.010846	0.033048
MGA	-0.99786	-1.46844	0.142512	0.251259	0.141797	0.25045
MGAT1	0.151961	0.298603	0.765347	0.844793	0.76541	0.844671
MGAT2	-0.42176	-1.14586	0.252313	0.389448	0.25446	0.391862
MGAT3	0.986882	0.937424	0.348919	0.489041	0.347313	0.487712
MGLL	-0.99329	-1.47368	0.141093	0.249488	0.140399	0.248447
MGMT	0.993465	2.574137	0.010289	0.031781	0.010572	0.032468
MGP	-2.16109	-3.32818	0.000928	0.004459	0.000911	0.004382
MGST1	2.986401	3.513743	0.000475	0.002561	0.000458	0.002487
MGST2	3.687704	5.694252	1.94E-08	4.59E-07	1.85E-08	4.40E-07
MGST3	0.932622	2.371071	0.018053	0.049793	0.018446	0.050406
MIB1	1.78687	2.957113	0.003228	0.012532	0.003194	0.012447
MICA	-2.88045	-3.60569	0.000337	0.001943	0.000326	0.001883
MID1	0.10289	0.177614	0.859086	0.911858	0.858975	0.911767
MINPP1	1.663781	3.664316	0.00027	0.001623	0.000275	0.001649
MIPEP	2.089025	2.634417	0.008646	0.027828	0.008481	0.027433
MITF	-1.80787	-4.02712	6.37E-05	0.000473	6.54E-05	0.000488
MKI67	0.504747	0.716485	0.473971	0.608652	0.473099	0.60803
MKKS	0.039943	0.058732	0.953185	0.972638	0.953101	0.972552
MKL2	2.145061	4.419863	1.17E-05	0.000115	1.19E-05	0.000117
MKNK1	-1.91313	-3.76334	0.000184	0.001164	0.000185	0.001166

MKNK2	1.97598	3.439487	0.000623	0.003216	0.000617	0.003182
MKRN1	-0.41975	-1.41271	0.158263	0.271572	0.162125	0.276885
MLF1IP	0.534252	0.998941	0.318227	0.460057	0.318145	0.460131
MLF2	-0.63903	-1.30967	0.19081	0.312262	0.191113	0.312536
MLH1	-1.16453	-1.71429	0.086994	0.171651	0.086429	0.170751
MLH3	0.601238	1.019714	0.308276	0.450248	0.307829	0.449595
MLL	2.473072	4.114481	4.42E-05	0.000352	4.34E-05	0.000347
MLL5	-1.12744	-1.67561	0.094337	0.182463	0.093765	0.181655
MLLT10	-1.2657	-2.53543	0.011484	0.034556	0.01152	0.034687
MLN	1.666904	2.731587	0.006489	0.022071	0.006427	0.021951
MLPH	0.897671	1.491384	0.136388	0.243458	0.135969	0.242896
MLYCD	-1.41482	-2.45059	0.014548	0.041768	0.01447	0.041647
MMD	-0.73242	-1.38937	0.165238	0.280469	0.165217	0.280636
MME	0.029861	0.034498	0.972491	0.982024	0.972414	0.982028
MMP1	0.82572	0.807765	0.419547	0.557026	0.418029	0.555323
MMP10	3.143211	3.990322	7.42E-05	0.00054	7.12E-05	0.000524
MMP11	3.882732	4.115597	4.40E-05	0.000352	4.17E-05	0.000336
MMP15	3.606936	3.969895	8.06E-05	0.000576	7.68E-05	0.000554
MMP2	-1.09782	-1.44055	0.150236	0.261657	0.149286	0.260158
MMP25	1.769611	2.566888	0.010504	0.032312	0.010359	0.032032
MMP7	1.382481	1.092852	0.274899	0.41411	0.273137	0.411853
MMP9	3.044348	3.053029	0.002366	0.009763	0.00229	0.009501
MMRN2	3.126569	9.071378	1.68E-18	6.07E-16	2.51E-18	9.06E-16
MN1	-1.9502	-2.8261	0.004869	0.01755	0.004789	0.017289
MNAT1	-0.16684	-0.37539	0.7075	0.803395	0.707983	0.803749
MNDA	3.373418	3.884653	0.000114	0.000768	0.000109	0.000736
MNT	0.880472	3.602367	0.000342	0.001955	0.000421	0.002322
MOAPI	-0.63282	-1.19102	0.234119	0.367767	0.234065	0.367928
MOBKL2A	-2.45668	-7.29551	9.50E-13	9.70E-11	1.28E-12	1.31E-10
MOCS1	0.607075	0.73462	0.462859	0.599199	0.461675	0.597917
MOCS2	-0.84171	-1.0236	0.306437	0.448119	0.305166	0.446817
MOCS3	-2.45181	-3.29576	0.00104	0.004896	0.001013	0.004799
MOSPD3	0.522441	0.819229	0.412982	0.550643	0.412313	0.550063
MPDU1	-0.25808	-0.46896	0.639269	0.749641	0.639133	0.749482
MPDZ	-1.64502	-3.25412	0.001202	0.005548	0.001206	0.005545
MPHOSPH6	1.282638	3.939265	9.14E-05	0.00064	0.000102	0.000701
MPI	-2.98938	-5.86316	7.51E-09	2.04E-07	7.55E-09	2.07E-07
MPP1	-0.42753	-0.92143	0.3572	0.497535	0.357788	0.498134
MPP2	0.334002	0.447252	0.654855	0.763537	0.654131	0.762693
MPP3	0.772171	1.030178	0.303343	0.444979	0.30225	0.44393
MPP6	-0.89168	-0.94398	0.34556	0.487112	0.344082	0.486518

MPST	1.692553	3.433733	0.000637	0.00326	0.000641	0.003288
MPV17	-1.19138	-1.54496	0.122886	0.224937	0.121996	0.223453
MPZL1	0.109095	0.237102	0.812659	0.878045	0.812902	0.878307
MR1	0.051093	0.076653	0.938925	0.963946	0.938822	0.964052
MRAS	2.809541	2.934909	0.003465	0.013325	0.003365	0.013006
MRE11A	-0.08407	-0.13997	0.888735	0.931338	0.888619	0.931217
MRP63	0.14459	0.198354	0.842836	0.898057	0.842504	0.897704
MRPL1	0.90859	1.596766	0.110846	0.206983	0.110607	0.206783
MRPL14	1.147496	1.493059	0.135949	0.242858	0.135023	0.241756
MRPL16	1.681121	4.112379	4.46E-05	0.000354	4.68E-05	0.000368
MRPL19	0.800195	3.301853	0.001018	0.004812	0.001221	0.005597
MRPL21	1.670229	3.708659	0.000228	0.001405	0.000233	0.001434
MRPL22	-0.64389	-1.56258	0.118681	0.218832	0.119685	0.220165
MRPL23	-0.51311	-0.52658	0.598683	0.716709	0.597532	0.715698
MRPL28	-1.50212	-1.46394	0.143736	0.253114	0.142427	0.251373
MRPL33	-0.20205	-0.57887	0.562892	0.686092	0.565046	0.688007
MRPL39	-1.86752	-3.94226	9.03E-05	0.000635	9.16E-05	0.000642
MRPL4	-1.92697	-2.47992	0.013416	0.039164	0.013192	0.038704
MRPL40	1.830402	2.833987	0.004752	0.017208	0.004689	0.016965
MRPL42	-1.85109	-2.44923	0.014602	0.041899	0.014376	0.041452
MRPL43	-0.08618	-0.13551	0.892252	0.933634	0.8921	0.933409
MRPL54	1.386602	2.260581	0.024144	0.062281	0.023974	0.061877
MRPS10	-0.36767	-0.59615	0.5513	0.67653	0.550812	0.675755
MRPS11	0.144501	0.228709	0.819173	0.882244	0.818929	0.882192
MRPS12	-1.30868	-2.34402	0.019404	0.052484	0.019339	0.052327
MRPS16	0.303973	0.938236	0.348502	0.488845	0.351924	0.491982
MRPS18B	-0.12434	-0.38471	0.700587	0.798826	0.702623	0.799799
MRPS23	0.474801	0.857763	0.391367	0.530247	0.391153	0.529903
MRPS30	4.653841	4.637068	4.34E-06	4.99E-05	4.04E-06	4.68E-05
MRPS31	1.375847	2.372688	0.017974	0.049665	0.017881	0.049429
MRPS35	0.110388	0.229365	0.818664	0.882244	0.818812	0.882192
MRPS36	-0.19415	-0.43889	0.660901	0.76868	0.66147	0.769082
MRPS5	0.320599	0.559779	0.57584	0.696417	0.575568	0.695953
MRPS6	2.308717	7.413716	4.22E-13	4.51E-11	6.29E-13	6.57E-11
MRRF	1.30238	2.586006	0.009945	0.030933	0.009971	0.031014
MRV11	-1.57008	-2.75016	0.006137	0.021084	0.006101	0.021005
MS4A1	-0.49543	-0.93308	0.351157	0.490946	0.351104	0.490982
MS4A2	0.864037	1.645972	0.100295	0.191465	0.10029	0.191533
MS4A4A	2.096377	4.161299	3.63E-05	0.000297	3.65E-05	0.000298
MS4A6A	-1.7377	-2.38917	0.017196	0.04785	0.016959	0.047264
MS4A8B	1.464714	1.5915	0.112026	0.208936	0.110954	0.207268

MSC	2.914345	2.902651	0.003837	0.014358	0.003724	0.014081
MSH2	3.0807	4.19928	3.09E-05	0.000259	2.96E-05	0.000251
MSH3	1.122881	3.577567	0.000375	0.002108	0.000416	0.002305
MSI2	0.623364	0.838076	0.402323	0.5398	0.401275	0.538712
MSLN	1.763194	1.827162	0.068174	0.142244	0.067315	0.140927
MSMB	-0.07409	-0.06261	0.950095	0.970749	0.949917	0.970568
MSRA	0.896842	0.878264	0.380153	0.518943	0.378598	0.517572
MSRB2	0.382636	1.154864	0.248608	0.384613	0.251733	0.388554
MST1R	4.082877	4.229623	2.71E-05	0.000232	2.55E-05	0.000222
MSX1	-2.29694	-2.51948	0.012012	0.035869	0.01176	0.035296
MT1E	0.885286	1.2523	0.21095	0.337693	0.210042	0.336408
MT3	1.192669	1.982278	0.047905	0.1083	0.047667	0.107812
MTA1	-0.44159	-0.54598	0.585281	0.704796	0.584318	0.703636
MTAP	1.63006	3.188558	0.001505	0.006679	0.001508	0.006675
MTCH2	-0.5378	-1.52612	0.12751	0.230942	0.129543	0.233994
MTCP1	-0.58595	-1.6128	0.107315	0.202238	0.10899	0.204493
MTERF	1.268075	2.947824	0.003325	0.012862	0.003392	0.013098
MTF1	-1.10793	-1.40924	0.159283	0.272824	0.158258	0.271267
MTHFD1	-0.56756	-1.45636	0.145817	0.255819	0.147254	0.257763
MTHFD2	-0.0693	-0.09302	0.92592	0.955709	0.925755	0.955645
MTHFR	-0.06148	-0.06368	0.949244	0.970512	0.949085	0.97035
MTIF2	0.08568	0.182904	0.854935	0.908477	0.855096	0.908443
MTL5	0.577412	0.926332	0.354647	0.495052	0.354025	0.494184
MTM1	-0.0487	-0.07369	0.941283	0.965661	0.941187	0.965515
MTMR2	-0.69487	-1.1267	0.260319	0.398438	0.259735	0.39764
MTMR4	-0.71323	-1.51394	0.13057	0.235037	0.130974	0.235853
MTO1	0.075958	0.140087	0.888639	0.931338	0.888607	0.931217
MTR	1.425555	3.203457	0.00143	0.006407	0.001457	0.006505
MTRF1	1.469593	3.299391	0.001027	0.004844	0.001046	0.00493
MTX2	0.452564	0.629927	0.528983	0.657557	0.528131	0.656671
MTX3	-0.57764	-0.62715	0.530803	0.658683	0.529572	0.657767
MUC13	-0.46633	-0.48461	0.62813	0.741016	0.627058	0.740124
MUC2	-1.11393	-1.09904	0.272195	0.411091	0.27064	0.409268
MUC4	-0.62015	-0.61822	0.536665	0.66377	0.535352	0.662321
MUM1	-1.28835	-2.12658	0.033864	0.082007	0.033665	0.081601
MUS81	1.339742	2.754828	0.006051	0.020881	0.006086	0.020986
MUSK	0.193839	0.298135	0.765704	0.844989	0.765352	0.844671
MUT	-1.3232	-2.36553	0.018323	0.050243	0.018259	0.050067
MUTYH	2.404014	4.049561	5.81E-05	0.00044	5.71E-05	0.000434
MVD	-0.07744	-0.12074	0.903935	0.942047	0.903795	0.942079
MVK	-1.19089	-1.3356	0.182189	0.302468	0.180923	0.301218

MVP	1.368961	3.514535	0.000474	0.002557	0.000496	0.002646
MX1	-0.12306	-0.20881	0.834664	0.893604	0.834514	0.893444
MX2	0.853938	1.024828	0.305859	0.447691	0.304565	0.446215
MXD4	-0.63969	-1.81082	0.07067	0.146129	0.072162	0.148886
MYB	-3.43216	-4.32173	1.81E-05	0.000165	1.73E-05	0.000158
MYBPH	-3.09014	-3.19816	0.001456	0.006511	0.001407	0.006327
MYCBP2	-2.91161	-4.27702	2.20E-05	0.000197	2.13E-05	0.00019
MYCL1	1.813797	2.90982	0.003751	0.014182	0.003706	0.014057
MYD88	0.684632	0.981837	0.326577	0.467712	0.325647	0.466629
MYEOV	0.624587	0.699025	0.484808	0.617507	0.48354	0.616559
MYH10	2.610348	4.421626	1.16E-05	0.000114	1.14E-05	0.000113
MYH11	0.761414	1.539818	0.124134	0.226398	0.124338	0.226357
MYH9	0.590685	1.277497	0.201923	0.326578	0.202491	0.327272
MYL6	1.188928	5.007114	7.28E-07	1.13E-05	1.10E-06	1.62E-05
MYL9	1.03884	2.563056	0.010619	0.032557	0.01085	0.033048
MYLIP	-0.0462	-0.06908	0.944952	0.967809	0.944858	0.967713
MYLK	0.410287	1.126652	0.260341	0.398438	0.262591	0.40096
MYO10	-0.16696	-0.37203	0.710004	0.805222	0.710451	0.805383
MYO1C	1.591716	4.10628	4.58E-05	0.000361	4.87E-05	0.000379
MYO1D	-0.12733	-0.1483	0.882158	0.926752	0.881833	0.926378
MYO1E	-0.23911	-0.54559	0.585554	0.704945	0.586269	0.705765
MYO1F	-1.35628	-1.61138	0.107624	0.202655	0.106672	0.201188
MYO5A	-2.24245	-3.6625	0.000272	0.001632	0.000267	0.001611
MYO6	-0.24993	-0.25764	0.796775	0.866862	0.796151	0.866249
MYO7A	-0.17967	-0.17602	0.860335	0.91277	0.859883	0.912292
MYO7B	-2.31957	-2.37708	0.017764	0.049227	0.017407	0.048352
MYO9A	-2.15477	-3.02494	0.002594	0.010512	0.002541	0.010318
MYO9B	1.370715	3.932752	9.38E-05	0.000653	0.000102	0.000701
MYOC	1.24344	2.12654	0.033867	0.082007	0.033711	0.081672
MYOM2	2.658027	3.932415	9.39E-05	0.000653	9.13E-05	0.00064
MYST1	1.422613	2.56567	0.01054	0.032384	0.010503	0.032327
MYST3	0.34456	0.433518	0.664795	0.771871	0.664007	0.771314
N4BP1	-3.63932	-3.17995	0.001549	0.006829	0.001491	0.006624
NAALAD2	-0.36177	-1.22546	0.220883	0.350372	0.225244	0.356807
NAB1	1.770882	4.27253	2.25E-05	0.000199	2.36E-05	0.000208
NADSYN1	-1.73581	-2.12533	0.033969	0.082168	0.033505	0.081297
NAGLU	1.912144	2.882283	0.00409	0.015148	0.004028	0.014976
NAGPA	-0.28704	-0.61637	0.537882	0.664991	0.538364	0.664996
NANS	-1.51265	-2.94508	0.003354	0.012954	0.003359	0.013005
NAP1L4	-1.26756	-1.83891	0.066424	0.139559	0.065918	0.138805
NAPG	0.70916	1.791813	0.073668	0.151395	0.074626	0.152896

NAPSB	0.0502	0.05954	0.952542	0.972398	0.952413	0.972272
NARF	0.311424	0.388112	0.698071	0.797117	0.697342	0.796428
NARS	-0.05239	-0.11939	0.905008	0.942539	0.905186	0.942902
NASP	-0.9273	-1.84637	0.065332	0.137995	0.065437	0.13804
NAT2	-1.66159	-2.54061	0.011317	0.034229	0.011188	0.033859
NAT8	1.158225	1.352332	0.17678	0.296231	0.175583	0.294685
NBEA	0.689016	1.318181	0.187948	0.309298	0.187959	0.309208
NBL1	0.617044	1.148801	0.251097	0.387699	0.250999	0.388057
NCAM1	1.327726	2.628787	0.008789	0.028121	0.008811	0.028133
NCAM2	0.326383	0.602912	0.546796	0.672056	0.546687	0.671985
NCBP1	-0.7384	-2.30622	0.021439	0.056929	0.02241	0.058874
NCBP2	-0.33311	-0.55358	0.580072	0.700138	0.579669	0.699832
NCF2	2.049867	5.142325	3.68E-07	6.03E-06	4.00E-07	6.59E-06
NCF4	5.437563	6.566433	1.12E-10	5.71E-09	9.98E-11	5.21E-09
NCK1	1.157794	2.662959	0.007954	0.026107	0.008078	0.026367
NCKIPSD	2.556558	7.924786	1.12E-14	1.60E-12	1.68E-14	2.39E-12
NCL	-0.24299	-0.58174	0.560964	0.684636	0.561959	0.685531
NCOA1	2.061784	4.570154	5.92E-06	6.52E-05	6.11E-06	6.71E-05
NCOA2	0.331868	0.392896	0.694537	0.794626	0.693746	0.794298
NCOA3	-1.21909	-4.25908	2.38E-05	0.000208	2.88E-05	0.000244
NCOA4	2.885472	6.526834	1.43E-10	6.95E-09	1.53E-10	7.41E-09
NCOA5	-1.05688	-1.18994	0.234541	0.368307	0.233192	0.366924
NCOA6	-1.05163	-1.66848	0.095744	0.1845	0.095291	0.183853
NDN	0.299113	0.542765	0.587494	0.706519	0.587338	0.706369
NDP	-2.40972	-2.83129	0.004792	0.017298	0.004677	0.016943
NDRG1	-2.204	-4.66165	3.87E-06	4.55E-05	3.95E-06	4.61E-05
NDST2	-1.63847	-2.35659	0.018765	0.051098	0.018539	0.050629
NDUFA1	1.083845	3.439979	0.000622	0.003214	0.000685	0.003486
NDUFA10	1.675525	2.030035	0.042795	0.098645	0.042248	0.097626
NDUFA11	3.559715	4.479292	8.97E-06	9.13E-05	8.52E-06	8.74E-05
NDUFA3	0.420917	0.815469	0.415128	0.552877	0.415195	0.552809
NDUFA4	-1.23462	-3.00452	0.002771	0.01106	0.002846	0.011326
NDUFA5	1.257987	2.918428	0.00365	0.013903	0.003721	0.014081
NDUFA7	-0.15169	-0.21833	0.827243	0.887884	0.826919	0.887739
NDUFA9	2.406707	3.023402	0.002607	0.010538	0.002542	0.010318
NDUFAB1	2.020989	5.515318	5.19E-08	1.09E-06	5.93E-08	1.23E-06
NDUFB11	1.795364	4.458107	9.88E-06	9.96E-05	1.05E-05	0.000106
NDUFB2	1.871142	2.221507	0.02669	0.067371	0.02628	0.066514
NDUFB5	1.00051	1.749481	0.080721	0.162549	0.080506	0.162046
NDUFB7	-0.40458	-1.30601	0.192051	0.313634	0.195689	0.318249
NDUFB8	-1.29299	-4.18631	3.26E-05	0.000271	3.77E-05	0.000307

NDUFC1	0.482698	0.842571	0.399805	0.537957	0.399468	0.537811
NDUFC2	-2.02331	-3.21982	0.001352	0.006111	0.001332	0.006025
NDUFS1	0.040939	0.077283	0.938424	0.963946	0.938419	0.963899
NDUFS2	-0.73513	-1.69413	0.090762	0.17752	0.091415	0.1785
NDUFS3	-0.69429	-2.45259	0.014468	0.041615	0.015531	0.043948
NDUFS4	0.089548	0.217438	0.827942	0.88843	0.828405	0.888928
NDUFS8	0.155848	0.533782	0.593691	0.712301	0.597275	0.715698
NDUFV1	-0.50696	-1.81437	0.070122	0.145572	0.07324	0.150393
NDUFV2	-0.20407	-0.31831	0.750361	0.83334	0.750008	0.833342
NDUFV3	-0.19674	-0.34061	0.733514	0.823855	0.733315	0.823556
NEBL	-0.81863	-0.98678	0.324149	0.465134	0.322862	0.464205
NECAP1	0.801037	1.052047	0.293203	0.435542	0.29208	0.43456
NEDD1	4.665518	8.071843	3.82E-15	5.61E-13	3.59E-15	5.28E-13
NEDD4	-0.49875	-0.79609	0.426294	0.563582	0.425681	0.562786
NEDD8	-0.28131	-1.20937	0.227	0.358864	0.235257	0.369185
NEDD9	-0.83851	-1.3938	0.163897	0.278695	0.163448	0.278241
NEFH	-3.37024	-5.28546	1.76E-07	3.18E-06	1.69E-07	3.05E-06
NEFL	0.238628	0.250405	0.80236	0.869717	0.801762	0.869306
NEK2	-0.52096	-1.24472	0.213723	0.340854	0.214871	0.342337
NEK3	0.781213	1.229456	0.219384	0.348729	0.218734	0.347784
NEK4	0.987909	1.156224	0.248051	0.384132	0.246746	0.382615
NEK7	2.76327	4.233157	2.67E-05	0.00023	2.59E-05	0.000224
NELL1	2.709548	4.359799	1.53E-05	0.000143	1.49E-05	0.000139
NEO1	1.908096	5.629669	2.78E-08	6.40E-07	3.34E-08	7.49E-07
NET1	1.008305	2.021856	0.043636	0.100485	0.043732	0.100409
NETO2	1.199864	1.341528	0.180258	0.300191	0.178993	0.298852
NEU1	-2.53912	-2.62885	0.008788	0.028121	0.008578	0.027596
NEXN	-0.77989	-1.67913	0.093648	0.181504	0.094044	0.18212
NF1	2.165338	3.77459	0.000176	0.001116	0.000174	0.001105
NF2	-2.0466	-3.61821	0.000322	0.001867	0.000319	0.001857
NFASC	0.907835	2.122627	0.034195	0.082589	0.034591	0.083203
NFAT5	-0.66507	-1.61126	0.107651	0.202655	0.108601	0.203925
NFATC1	0.379749	1.232857	0.218114	0.347267	0.221946	0.352057
NFATC2	2.734724	4.041358	6.01E-05	0.000452	5.83E-05	0.000442
NFATC3	-1.58003	-3.39762	0.000725	0.003652	0.000735	0.003688
NFATC4	0.312976	0.441602	0.658937	0.767155	0.658297	0.76641
NFE2	1.531891	1.812752	0.070371	0.145831	0.069608	0.144498
NFE2L2	0.529092	1.494271	0.135632	0.242385	0.137685	0.244935
NFE2L3	1.531804	2.407573	0.016361	0.045853	0.016208	0.045451
NFIC	-1.02942	-1.49961	0.134244	0.240716	0.133526	0.239807
NFIL3	1.718444	2.417796	0.015913	0.044811	0.015701	0.044351

NFIX	0.537939	0.989088	0.32302	0.464387	0.32287	0.464205
NFKB1	0.093541	0.18048	0.856837	0.910087	0.856852	0.91
NFKB2	-0.28485	-0.43238	0.665618	0.772446	0.66511	0.771855
NFKBIB	1.717814	4.068847	5.36E-05	0.00041	5.57E-05	0.000425
NFKBIE	0.310628	0.497607	0.618944	0.733674	0.618488	0.733139
NFKBIL1	0.289091	0.602418	0.547124	0.672284	0.547468	0.672706
NFRKB	-0.7024	-0.61214	0.540677	0.667152	0.539256	0.665574
NFS1	-0.35789	-0.98227	0.326366	0.467658	0.328644	0.469634
NFX1	-0.76943	-2.1941	0.028612	0.071416	0.02948	0.073095
NFYA	2.262286	3.038172	0.002484	0.01017	0.002429	0.009996
NFYB	-2.89221	-4.61694	4.77E-06	5.40E-05	4.63E-06	5.27E-05
NFYC	0.941572	1.308037	0.191363	0.31262	0.190441	0.311764
NGEF	-1.50651	-1.62277	0.105166	0.199145	0.104118	0.1974
NHLH1	-0.6417	-1.02888	0.303953	0.445595	0.303326	0.444954
NHLRC2	1.468869	2.194611	0.028575	0.071362	0.028303	0.070608
NHP2L1	-0.9767	-1.25135	0.211298	0.337724	0.210189	0.336424
NID2	-0.0257	-0.04622	0.963147	0.97792	0.963129	0.977902
NIN	2.535921	3.48318	0.000532	0.002805	0.000517	0.002734
NINJ1	0.414744	0.792714	0.428259	0.565112	0.428269	0.565411
NIPBL	0.888981	2.051696	0.040634	0.094874	0.041043	0.095497
NIPSNAP1	0.921233	1.40013	0.161993	0.27676	0.161315	0.275903
NISCH	1.783831	5.954417	4.45E-09	1.34E-07	6.03E-09	1.71E-07
NKG7	0.232787	0.314402	0.753325	0.83466	0.752799	0.834274
NKRF	0.936497	2.174777	0.030038	0.074188	0.030386	0.074929
NKTR	-0.52121	-0.99749	0.318929	0.460795	0.318944	0.46093
NKX2-5	-1.78355	-1.85039	0.06475	0.137022	0.063918	0.135688
NLGN3	0.133003	0.191784	0.847976	0.902319	0.847692	0.902208
NLK	1.150043	1.751932	0.080298	0.161905	0.079813	0.161135
NMB	-2.0372	-2.30206	0.021674	0.057359	0.021299	0.05666
NME1	-0.11021	-0.25162	0.801424	0.869705	0.801796	0.869306
NME5	-1.59602	-1.90936	0.056693	0.124688	0.05603	0.123519
NME6	0.340491	0.481548	0.630303	0.743021	0.629622	0.742218
NMI	0.049244	0.090674	0.927782	0.956267	0.927761	0.956455
NMNAT3	-0.91147	-2.04616	0.041178	0.095672	0.04152	0.096414
NMT1	-0.21901	-0.6968	0.486197	0.618604	0.489599	0.621251
NMU	1.252052	1.646472	0.100192	0.191346	0.099404	0.19015
NNAT	1.481285	1.619926	0.105775	0.199897	0.10474	0.198419
NNMT	-0.86064	-1.62103	0.105538	0.199609	0.105498	0.199373
NNT	0.419223	0.748554	0.45442	0.589993	0.454175	0.589838
NODAL	0.41998	0.526141	0.598985	0.716709	0.598065	0.716155
NOLC1	2.541406	3.311846	0.000983	0.00467	0.000956	0.004546

NOS1	0.462923	0.572323	0.567318	0.689525	0.566323	0.688672
NOS3	0.783362	0.899456	0.368772	0.507534	0.36742	0.506415
NOTCH1	0.568719	1.079246	0.280913	0.420897	0.280892	0.420846
NOTCH3	0.101048	0.291849	0.770503	0.847896	0.771769	0.848494
NOV	-1.44221	-2.67143	0.007759	0.02559	0.007742	0.025589
NOVA1	-0.86085	-1.74072	0.082247	0.164564	0.082413	0.164685
NPAT	1.573565	1.941619	0.052653	0.11745	0.052045	0.116482
NPC1	0.035802	0.048248	0.961534	0.976705	0.961449	0.976618
NPC2	-0.8717	-2.78796	0.005473	0.019224	0.005851	0.020377
NPDC1	-0.4079	-0.46159	0.644544	0.753946	0.643594	0.75321
NPEPL1	-0.42303	-1.28176	0.200423	0.324487	0.203436	0.328461
NPFF	1.299968	3.12193	0.001883	0.008026	0.001934	0.008213
NPHP1	0.641257	1.193771	0.233041	0.366318	0.232943	0.366655
NPIP	0.035295	0.091867	0.926834	0.955709	0.927111	0.956099
NPTX1	0.043762	0.074721	0.940462	0.965102	0.94041	0.965049
NPTX2	-1.32668	-1.77551	0.076322	0.155604	0.075662	0.154535
NPTXR	-0.59866	-0.625	0.532212	0.659651	0.530939	0.658768
NPY	3.546508	5.628339	2.80E-08	6.42E-07	2.67E-08	6.19E-07
NQO1	-0.42952	-0.69851	0.485132	0.617695	0.484606	0.616915
NQO2	0.119362	0.171803	0.863651	0.913925	0.863394	0.913541
NR0B2	-1.7035	-2.13125	0.033476	0.081325	0.033303	0.080478
NR1D2	-0.32256	-0.69502	0.487313	0.619354	0.487845	0.619528
NR1H2	1.665558	1.811975	0.070491	0.145952	0.069654	0.144498
NR1I2	1.919884	3.456047	0.000587	0.003069	0.000583	0.003039
NR2C1	-1.14074	-1.8744	0.061363	0.131812	0.061066	0.131474
NR2C2	1.49673	2.277526	0.023107	0.060101	0.022886	0.059724
NR2F1	-0.22978	-0.45099	0.652159	0.76096	0.652245	0.760871
NR2F2	-2.17907	-4.94897	9.71E-07	1.44E-05	1.01E-06	1.50E-05
NR2F6	-0.4838	-1.18016	0.238405	0.372136	0.23972	0.373802
NR4A1	1.091855	1.787788	0.074317	0.152261	0.073979	0.151834
NR4A2	0.220658	0.332734	0.739452	0.827679	0.739036	0.827175
NR4A3	1.117811	1.731152	0.08394	0.167028	0.083473	0.166309
NR5A2	3.637574	6.505366	1.64E-10	7.70E-09	1.59E-10	7.57E-09
NR6A1	1.035348	1.745573	0.081399	0.1634	0.081103	0.16276
NRCAM	1.279815	1.869106	0.062097	0.133024	0.061618	0.13218
NRD1	-2.26037	-3.51127	0.00048	0.002582	0.00047	0.002539
NRF1	2.215696	4.758925	2.44E-06	3.08E-05	2.51E-06	3.14E-05
NRG1	-1.56773	-2.45171	0.014503	0.041665	0.01436	0.041431
NRGN	1.772472	2.503126	0.012576	0.037197	0.012399	0.036743
NRIP1	0.494507	1.309077	0.191011	0.312262	0.192821	0.314673
NRK	0.918591	2.463962	0.014021	0.040579	0.014435	0.041596

NRP1	1.648438	3.36586	0.000812	0.003996	0.000818	0.004038
NRP2	1.176442	2.574037	0.010291	0.031781	0.010396	0.032088
NRXN1	0.570597	1.044889	0.296497	0.438356	0.29633	0.438386
NRXN3	3.197128	4.212992	2.91E-05	0.000247	2.79E-05	0.000238
NSD1	1.083858	2.688799	0.007371	0.024517	0.00755	0.02506
NSDHL	0.017308	0.052568	0.958094	0.975293	0.958375	0.975335
NSF	-0.87794	-1.48795	0.137291	0.244698	0.136925	0.244137
NSFL1C	0.237954	0.437826	0.66167	0.769291	0.661574	0.769082
NSMAF	-0.3254	-0.53937	0.589832	0.708643	0.589431	0.708161
NSMCE1	1.99177	3.990357	7.42E-05	0.00054	7.47E-05	0.000543
NSUN2	0.835508	1.876884	0.061021	0.131498	0.06146	0.132021
NSUN4	0.819968	2.363106	0.018442	0.050451	0.019105	0.051844
NT5C	0.124652	0.429188	0.667941	0.773995	0.671017	0.776186
NT5C2	-0.71645	-2.60703	0.009361	0.029508	0.0102	0.031621
NT5E	1.972332	2.807701	0.005152	0.018346	0.005065	0.018103
NTHL1	-1.19898	-1.3395	0.180918	0.300997	0.17965	0.29963
NUBP1	-1.29526	-1.75231	0.080233	0.161844	0.079569	0.160711
NUBP2	2.119702	2.227675	0.026273	0.066461	0.025813	0.065649
NUCB1	-0.23917	-0.99411	0.32057	0.462456	0.328454	0.469506
NUCB2	1.856896	2.761093	0.005938	0.020577	0.005851	0.020377
NUDT1	0.619585	1.252074	0.211032	0.337701	0.211279	0.337529
NUDT4	-1.75049	-2.76066	0.005945	0.020577	0.005875	0.020394
NUDT5	-0.64066	-1.03556	0.300826	0.442252	0.300224	0.442214
NUMA1	-4.87493	-6.37527	3.65E-10	1.40E-08	3.32E-10	1.34E-08
NUMB	2.209755	5.401317	9.56E-08	1.88E-06	1.03E-07	2.04E-06
NUP107	0.928742	1.39966	0.162134	0.276793	0.161436	0.276009
NUP153	-4.04927	-4.6424	4.24E-06	4.88E-05	3.98E-06	4.62E-05
NUP155	0.786505	1.299126	0.194401	0.316703	0.193908	0.316228
NUP210	1.04991	2.480221	0.013404	0.039155	0.013621	0.039715
NUP35	2.300525	4.591112	5.38E-06	5.97E-05	5.42E-06	6.03E-05
NUP50	1.523865	2.993054	0.002876	0.011401	0.002883	0.011453
NUP54	-1.03377	-2.65168	0.008222	0.026723	0.00845	0.02737
NUP62	1.977151	4.811933	1.89E-06	2.49E-05	2.02E-06	2.67E-05
NUP88	1.533282	2.132057	0.033409	0.081233	0.033043	0.080478
NUP98	1.602026	3.043169	0.002444	0.010022	0.002442	0.010033
NUPL2	-1.1299	-2.38981	0.017166	0.047824	0.017276	0.048047
NUTF2	-0.60183	-1.48116	0.13909	0.246807	0.140247	0.248447
NVL	0.9056	1.899411	0.057991	0.126536	0.058221	0.126801
NXT2	-0.00481	-0.01139	0.990914	0.993662	0.990935	0.993684
OAS1	-0.06973	-0.08218	0.934529	0.961955	0.93435	0.961771
OAS2	-1.12623	-1.70573	0.088578	0.174264	0.088057	0.173311

OAT	-1.05048	-1.68492	0.092527	0.180073	0.092104	0.179547
OAZ1	-0.9736	-4.04314	5.96E-05	0.000449	7.80E-05	0.00056
OBFC1	-3.4577	-3.10478	0.001994	0.008422	0.001924	0.008182
OCIAD1	0.068584	0.141663	0.887394	0.930348	0.88748	0.930439
OCLN	0.460368	0.768867	0.442276	0.578058	0.441806	0.577123
OCRL	1.774522	3.53683	0.000436	0.002385	0.000438	0.002393
ODC1	1.296809	2.292555	0.02222	0.058294	0.022135	0.058283
ODF2	1.635124	2.294585	0.022102	0.058164	0.021832	0.05781
ODF3L1	0.704024	1.22042	0.222787	0.353034	0.222431	0.352708
ODZ3	0.638015	1.333709	0.182807	0.30328	0.183195	0.303709
OFD1	0.859684	1.745879	0.081345	0.1634	0.081523	0.163417
OGFR	-0.24728	-0.38737	0.698618	0.797161	0.698206	0.796691
OLFM1	1.244218	2.645693	0.008367	0.027083	0.008435	0.02736
OLFML2A	-1.18273	-1.38472	0.166655	0.282772	0.165486	0.28089
OLR1	3.619198	4.428223	1.13E-05	0.000112	1.07E-05	0.000107
OPA1	0.670842	1.048382	0.294886	0.436709	0.294185	0.436448
OPCML	1.421108	2.292657	0.022214	0.058294	0.022045	0.058079
OPHN1	0.186308	0.226435	0.820941	0.883338	0.820478	0.88284
OPTN	2.677067	3.63375	0.000303	0.001773	0.000294	0.001744
ORMDL1	2.475081	4.924182	1.10E-06	1.60E-05	1.11E-06	1.62E-05
OSBP	1.612707	2.832193	0.004779	0.017264	0.00475	0.017172
OSBPL10	-1.83412	-2.29936	0.021828	0.057604	0.021497	0.057019
OSBPL11	-1.16278	-1.88656	0.059704	0.12918	0.059391	0.128507
OSBPL2	0.238527	0.531442	0.59531	0.713582	0.595903	0.714476
OSBPL6	-0.17863	-0.22742	0.820175	0.882717	0.819741	0.882312
OSBPL8	-1.95215	-4.82272	1.80E-06	2.39E-05	1.92E-06	2.56E-05
OSBPL9	-4.09296	-5.27485	1.86E-07	3.32E-06	1.74E-07	3.12E-06
OSGEP	0.89567	1.995229	0.046471	0.105514	0.04682	0.106102
OSMR	-1.37756	-1.53621	0.125015	0.227652	0.123917	0.225827
OSTF1	-0.31361	-0.36165	0.71774	0.811103	0.71698	0.810439
OSTM1	-2.60522	-6.00211	3.38E-09	1.07E-07	3.61E-09	1.14E-07
OTC	-3.14289	-2.7568	0.006015	0.020788	0.005841	0.020377
OTOF	0.378195	0.359734	0.719173	0.812332	0.718277	0.81132
OTUB1	0.2379	0.331948	0.740045	0.827822	0.739529	0.827175
OVGP1	1.562777	3.866627	0.000122	0.000813	0.000128	0.000845
OVOL1	-0.13598	-0.21216	0.832055	0.89142	0.831813	0.891161
OXA1L	-0.7428	-1.74535	0.081438	0.1634	0.082131	0.164211
OXSRI	-0.09346	-0.12427	0.901143	0.940149	0.900919	0.939916
OXTR	-1.77943	-3.11854	0.001905	0.008102	0.001891	0.008049
P2RX1	-1.10195	-1.18367	0.237014	0.370986	0.235597	0.369595
P2RX4	2.008989	2.656817	0.008099	0.026415	0.007953	0.026047

P2RY10	0.697436	1.769394	0.077338	0.157014	0.078341	0.158776
P2RY2	-0.02745	-0.04834	0.961462	0.976705	0.961437	0.976618
P2RY6	2.914285	9.465858	6.62E-20	3.46E-17	1.24E-19	6.48E-17
P4HA1	-0.01365	-0.03579	0.971462	0.982024	0.971574	0.982028
P4HA2	-0.59188	-0.91494	0.360593	0.50038	0.359864	0.500107
PA2G4	0.658604	2.054091	0.040401	0.094423	0.041882	0.09699
PABPC1	0.395965	1.155319	0.248421	0.384451	0.251207	0.388202
PABPC4	-0.8337	-1.18361	0.237036	0.370986	0.236111	0.370127
PABPN1	0.82544	0.884877	0.376579	0.515662	0.375132	0.514011
PACRG	1.476568	2.982694	0.002974	0.011705	0.002988	0.011812
PAEP	-0.1695	-0.20743	0.835742	0.894351	0.83532	0.893899
PAFAH1B1	3.212775	5.207262	2.64E-07	4.53E-06	2.55E-07	4.39E-06
PAFAH1B2	0.386303	0.777424	0.437216	0.572559	0.437447	0.573021
PAFAH1B3	-0.27272	-0.79252	0.428371	0.565112	0.43105	0.56733
PAFAH2	0.977285	1.295739	0.195565	0.317875	0.194544	0.316934
PAIP1	1.60147	1.688111	0.091911	0.179172	0.090914	0.177669
PAK1	-0.46201	-1.02536	0.305608	0.447463	0.306364	0.447872
PAK1IP1	0.593452	1.285191	0.199223	0.322657	0.199796	0.323473
PAK2	-0.886	-1.86175	0.063129	0.134683	0.063376	0.135086
PAK4	-0.61295	-1.39413	0.163795	0.278695	0.164578	0.279652
PALM	3.501036	5.305116	1.59E-07	2.91E-06	1.51E-07	2.79E-06
PANK3	0.713935	1.35572	0.1757	0.294714	0.175683	0.294685
PANX1	-0.26598	-0.40762	0.683701	0.786586	0.683233	0.786094
PAPOLA	-1.09815	-2.30503	0.021506	0.05701	0.021626	0.057295
PAPPA	-0.83712	-1.14455	0.252854	0.389626	0.251834	0.388581
PAPSS1	2.590733	4.377652	1.42E-05	0.000134	1.39E-05	0.000132
PAPSS2	0.181491	0.225812	0.821425	0.883637	0.820978	0.883176
PARD3	1.102488	1.41688	0.157039	0.270063	0.156037	0.26863
PARD6A	1.383871	3.116813	0.001916	0.008142	0.00195	0.008258
PARN	0.215863	0.335039	0.737713	0.826914	0.737336	0.826886
PARP10	-0.77784	-1.40733	0.159849	0.273495	0.159663	0.273376
PARP16	0.226488	0.300648	0.763788	0.843865	0.763264	0.843287
PARP2	-0.75761	-1.42113	0.155799	0.268521	0.155738	0.268514
PARP4	-2.27696	-3.12334	0.001875	0.008002	0.001833	0.007858
PARVB	-1.14172	-1.33475	0.182466	0.302822	0.181258	0.301562
PARVG	1.158787	3.212704	0.001386	0.006238	0.001461	0.006516
PASK	-0.76683	-1.4309	0.152982	0.265026	0.152903	0.264987
PAX5	-2.43879	-3.3552	0.000843	0.004133	0.000822	0.004049
PAX6	0.422482	0.715254	0.474731	0.609461	0.474318	0.609263
PAX8	-0.0135	-0.01844	0.985297	0.990142	0.985265	0.99011
PBX1	0.766101	2.118542	0.034541	0.083233	0.035419	0.08476

PBX3	0.014046	0.025819	0.97941	0.98607	0.979404	0.98602
PCBP1	0.763952	1.690418	0.091469	0.178532	0.091962	0.179419
PCBP2	0.095836	0.312914	0.754455	0.835216	0.75646	0.837147
PCCB	4.652764	5.618447	2.96E-08	6.62E-07	2.71E-08	6.25E-07
PCDH1	3.219894	6.834493	2.03E-11	1.35E-09	2.11E-11	1.42E-09
PCDH9	-0.62843	-1.48545	0.13795	0.245408	0.13888	0.246594
PCDHGC3	0.483165	0.721138	0.471106	0.605966	0.470346	0.60532
PCGF2	-0.88852	-0.91295	0.361634	0.501085	0.360124	0.500321
PCK2	-1.13633	-1.26992	0.204607	0.329897	0.203291	0.328452
PCM1	0.321321	0.683986	0.494249	0.625969	0.494718	0.626901
PCMT1	-2.05444	-7.45763	3.11E-13	3.40E-11	5.55E-13	5.92E-11
PCNA	-2.46383	-4.96304	9.06E-07	1.36E-05	9.16E-07	1.38E-05
PCNP	2.525842	3.951784	8.68E-05	0.000615	8.48E-05	0.000601
PCNX	0.242751	0.95655	0.339181	0.480486	0.346052	0.487348
PCNXL2	-1.54897	-2.90401	0.00382	0.01433	0.003814	0.014364
PCOLCE	-1.24554	-2.99413	0.002866	0.011377	0.002938	0.011642
PCP4	-0.09189	-0.09623	0.923367	0.954437	0.92313	0.954192
PCSK7	-0.81195	-0.94298	0.346071	0.487211	0.344727	0.487284
PCYOX1	0.552552	0.646156	0.518426	0.647746	0.51727	0.646931
PDCD10	-0.47521	-1.15153	0.249976	0.386222	0.251257	0.388202
PDCD2	-0.07166	-0.15557	0.876422	0.922963	0.876583	0.923132
PDCD4	-1.27887	-3.56713	0.00039	0.002179	0.000416	0.002305
PDCD5	2.049432	3.587886	0.000361	0.002047	0.000357	0.002037
PDCD6	-0.34074	-0.90982	0.363283	0.502333	0.36531	0.504245
PDCL	-3.06566	-3.97661	7.85E-05	0.000563	7.54E-05	0.000545
PDE10A	-0.68788	-0.76767	0.442987	0.578827	0.441659	0.577123
PDE1A	-0.14583	-0.2924	0.770078	0.847627	0.770183	0.847706
PDE1B	1.730403	2.203034	0.027973	0.070044	0.027589	0.069157
PDE2A	0.579623	1.298625	0.194573	0.316873	0.19532	0.317869
PDE4A	0.341103	1.043103	0.297322	0.439162	0.300652	0.442274
PDE4B	0.204976	0.319946	0.749121	0.83275	0.748767	0.832948
PDE4C	0.325232	0.354048	0.723428	0.81557	0.722635	0.814676
PDE4D	-0.87688	-0.92424	0.355735	0.496277	0.354255	0.494358
PDE4DIP	1.242845	2.296189	0.02201	0.057988	0.021972	0.057984
PDE5A	1.566167	2.518882	0.012032	0.035906	0.011922	0.035601
PDE6D	-0.96496	-2.18608	0.029197	0.072605	0.029487	0.073095
PDE6G	0.955527	1.765688	0.077958	0.158001	0.077876	0.15797
PDE7A	0.265727	0.584525	0.559087	0.682877	0.559661	0.683578
PDE8A	0.460624	0.981786	0.326602	0.467712	0.327134	0.468046
PDE8B	1.296539	1.424186	0.154914	0.267487	0.153694	0.265965
PDE9A	2.035645	4.729037	2.82E-06	3.45E-05	2.95E-06	3.63E-05

PDGFD	1.205397	2.1664	0.030675	0.075498	0.030591	0.075275
PDGFRA	0.906787	2.13118	0.033481	0.081325	0.033884	0.082006
PDGFRL	-0.20959	-0.23257	0.816171	0.880828	0.815642	0.880459
PDHA1	0.17864	0.54431	0.586431	0.705639	0.588977	0.707978
PDK1	0.918393	2.593819	0.009724	0.030388	0.010109	0.031402
PDK2	-2.36843	-5.94699	4.65E-09	1.37E-07	5.17E-09	1.51E-07
PDK3	0.32997	0.369755	0.711696	0.806406	0.710897	0.805694
PDK4	2.119777	3.001252	0.002801	0.011156	0.002746	0.011004
PDLIM3	2.299564	4.170841	3.48E-05	0.000286	3.45E-05	0.000285
PDPK1	-0.4061	-0.73047	0.46539	0.601742	0.465173	0.601296
PDXK	-0.82962	-2.33831	0.0197	0.053151	0.020341	0.054631
PEA15	1.717403	5.861567	7.58E-09	2.04E-07	1.04E-08	2.71E-07
PEBP4	2.938688	5.962175	4.26E-09	1.31E-07	4.32E-09	1.32E-07
PECAM1	2.884799	5.743846	1.47E-08	3.63E-07	1.49E-08	3.64E-07
PEG10	-2.4639	-3.66562	0.000269	0.001619	0.000262	0.001581
PELO	1.456601	2.116606	0.034706	0.08347	0.034369	0.082916
PELP1	0.33666	0.595928	0.551449	0.676536	0.551206	0.676062
PENK	3.854217	4.601778	5.12E-06	5.73E-05	4.82E-06	5.46E-05
PEPD	0.830589	1.222567	0.221975	0.351985	0.221148	0.35091
PER1	0.551028	1.487387	0.13744	0.24484	0.139176	0.24684
PER2	1.073664	1.517695	0.12962	0.233913	0.128855	0.23302
PES1	0.441918	1.076381	0.282191	0.422388	0.283529	0.42412
PET112L	-2.62216	-6.11946	1.70E-09	5.66E-08	1.83E-09	6.10E-08
PEX1	-0.39931	-0.50375	0.614623	0.730215	0.613742	0.729721
PEX11A	1.473794	3.551215	0.000414	0.002287	0.000428	0.002347
PEX11B	-0.0208	-0.0321	0.974401	0.982741	0.974362	0.982725
PEX13	0.588435	1.125481	0.260837	0.398937	0.260849	0.398825
PEX14	0.678914	1.039124	0.299167	0.441055	0.298406	0.440402
PEX19	-1.10391	-1.96158	0.050275	0.112843	0.050139	0.112587
PEX5	-0.08787	-0.22877	0.819124	0.882244	0.819799	0.882312
PEX6	-0.21531	-0.26103	0.794158	0.865216	0.793626	0.864637
PEX7	0.599495	0.712091	0.476686	0.610969	0.475491	0.609936
PFAS	-0.33046	-0.58607	0.55805	0.682497	0.557816	0.682033
PFDN5	0.029506	0.11935	0.905038	0.942539	0.906467	0.943609
PFKFB2	1.137317	1.253895	0.21037	0.336994	0.209026	0.335412
PFKFB3	-0.85043	-1.48127	0.139062	0.246807	0.138771	0.246494
PFKM	0.990572	1.296138	0.195428	0.317832	0.194382	0.31678
PFKP	0.75549	0.908715	0.363867	0.502992	0.362588	0.501667
PFN1	-0.41002	-1.59849	0.110463	0.20639	0.11544	0.214284
PGC	-4.81308	-4.08762	4.95E-05	0.000385	4.66E-05	0.000366
PGD	-0.26494	-0.37174	0.710219	0.805222	0.709657	0.804872

PGF	-2.03813	-2.22591	0.026392	0.066725	0.025946	0.065845
PGGT1B	-0.94539	-1.52692	0.12731	0.230669	0.126833	0.229983
PGK1	0.051438	0.107353	0.914545	0.948358	0.914619	0.948122
PGLS	-0.6678	-1.19545	0.232387	0.365535	0.232141	0.36576
PGM2	-0.34076	-0.75924	0.448007	0.58344	0.448739	0.58423
PGM3	-0.86807	-1.1089	0.267919	0.406456	0.266752	0.405083
PGRMC2	-0.47176	-1.50869	0.131905	0.237077	0.134984	0.241756
PGS1	-3.7136	-4.65615	3.97E-06	4.64E-05	3.75E-06	4.42E-05
PHACTR1	2.578077	2.803266	0.005223	0.018527	0.005089	0.018135
PHACTR2	2.128761	3.050594	0.002385	0.009824	0.002339	0.009659
PHC1	-1.86595	-2.09176	0.036881	0.087856	0.036336	0.086778
PHC2	4.389696	4.905286	1.20E-06	1.72E-05	1.12E-06	1.64E-05
PHF1	-0.66842	-1.18095	0.238092	0.371895	0.237797	0.371805
PHF10	0.354784	0.473802	0.635814	0.746335	0.635052	0.745627
PHF14	2.193668	4.091586	4.87E-05	0.000379	4.85E-05	0.000378
PHF17	0.639935	0.902109	0.367362	0.506554	0.3664	0.505454
PHF19	0.752852	1.265396	0.206222	0.331592	0.205774	0.331098
PHF20	-0.55952	-1.53367	0.12564	0.228172	0.127414	0.230858
PHF20L1	-0.21741	-0.50318	0.615021	0.730318	0.615759	0.731009
PHF3	0.331027	0.917656	0.359169	0.499288	0.361519	0.501002
PHF8	-2.53446	-3.162	0.001646	0.007203	0.001602	0.007033
PHIP	1.391861	1.806219	0.071387	0.147416	0.070714	0.146349
PHKA1	1.793838	2.147245	0.032175	0.078738	0.031714	0.077795
PHKA2	-0.39324	-0.91372	0.361233	0.500824	0.362259	0.501507
PHKB	1.338393	2.499079	0.012719	0.037478	0.012701	0.037449
PHKG2	-1.31538	-2.22883	0.026196	0.066301	0.026055	0.066052
PHLDA2	-1.75028	-3.81023	0.000153	0.000984	0.000156	0.001004
PHLDA3	-1.38704	-1.52923	0.126736	0.229718	0.125618	0.228044
PHPT1	-0.40988	-0.64763	0.517473	0.647357	0.516892	0.646931
PHTF1	1.330543	2.013854	0.044472	0.101614	0.044123	0.101013
PHYH	-0.33538	-0.41238	0.68021	0.783768	0.679428	0.783059
PI3	-2.00951	-1.82664	0.068252	0.142255	0.06731	0.140927
PIAS1	1.033751	1.424185	0.154915	0.267487	0.154041	0.266273
PIAS2	1.743483	4.352476	1.58E-05	0.000146	1.68E-05	0.000155
PIAS4	0.272997	1.218083	0.223673	0.354319	0.232683	0.366491
PICALM	-0.39816	-1.10264	0.270627	0.409118	0.272962	0.411721
PIGC	-0.03632	-0.07155	0.942983	0.966635	0.943001	0.966631
PIGF	1.937421	4.084113	5.03E-05	0.000389	5.11E-05	0.000395
PIGL	-0.71138	-1.55802	0.119757	0.220297	0.120276	0.220818
PIGN	0.26819	0.334009	0.73849	0.826996	0.73785	0.827067
PIGR	0.356293	0.334172	0.738367	0.826996	0.737519	0.826894

PIGT	2.98915	5.191098	2.87E-07	4.90E-06	2.80E-07	4.81E-06
PIK3C2A	-0.27465	-0.42515	0.67088	0.77648	0.670413	0.775903
PIK3C2B	2.6135	3.536294	0.000437	0.002387	0.000425	0.002336
PIK3C2G	5.777107	5.477218	6.37E-08	1.32E-06	5.75E-08	1.21E-06
PIK3C3	0.745316	1.433556	0.152222	0.264098	0.152251	0.264149
PIK3CA	1.28136	3.343424	0.000879	0.00426	0.00092	0.004414
PIK3CB	1.647779	2.437119	0.015095	0.043024	0.014917	0.042593
PIK3CD	0.200621	0.248503	0.803831	0.870708	0.803338	0.870376
PIK3CG	1.564021	2.366753	0.018263	0.050155	0.018072	0.049739
PIK3R2	2.179196	4.912663	1.16E-06	1.68E-05	1.21E-06	1.75E-05
PILRA	2.69294	3.495375	0.000508	0.002697	0.000493	0.002635
PILRB	0.183599	0.320899	0.748399	0.832341	0.748228	0.83258
PIM1	0.373917	0.511386	0.60927	0.725689	0.6085	0.724772
PIM2	-1.96014	-3.31022	0.000988	0.004683	0.000977	0.004638
PIN1	-0.98156	-3.31752	0.000963	0.004592	0.001073	0.005029
PINX1	1.222139	1.378574	0.168542	0.28515	0.167317	0.28369
PIP5K1A	1.363711	4.410305	1.22E-05	0.000119	1.44E-05	0.000135
PIP5K1B	0.516456	0.677218	0.498529	0.629991	0.497527	0.628934
PIP5K1C	-0.18728	-0.25935	0.795454	0.865825	0.795035	0.865438
PIPOX	-1.22579	-2.01771	0.044068	0.101034	0.043828	0.100533
PIR	-0.10884	-0.20295	0.839246	0.897455	0.839215	0.897394
PISD	2.243624	2.544135	0.011205	0.033972	0.010974	0.033363
PITPNA	-0.60374	-0.73686	0.461498	0.597861	0.460326	0.596343
PITPNB	0.194667	0.33676	0.736416	0.826248	0.736218	0.826026
PITPNC1	-0.12342	-0.20042	0.841219	0.897555	0.841029	0.897514
PITX2	-0.99892	-1.12921	0.259261	0.397433	0.257893	0.395465
PKHD1	1.121533	2.526879	0.011765	0.035242	0.01191	0.035601
PKIA	-1.21694	-2.53696	0.011435	0.034451	0.011504	0.03466
PKIG	-0.83695	-1.92871	0.05424	0.120078	0.054726	0.121041
PKN1	-0.4895	-1.09054	0.275915	0.415375	0.276687	0.416404
PKN2	1.43481	2.93297	0.003486	0.013396	0.003506	0.013472
PKN3	-0.87006	-1.56264	0.118666	0.218832	0.118481	0.218462
PKNOX1	-0.26031	-0.4769	0.633604	0.744858	0.63349	0.74435
PKNOX2	-0.62959	-0.97689	0.329017	0.47031	0.328294	0.469483
PKP2	0.711981	1.033228	0.301915	0.44316	0.301015	0.44253
PKP4	-1.61054	-2.87316	0.004208	0.015476	0.004186	0.01542
PLA2G2A	-4.24113	-3.12412	0.00187	0.007989	0.001797	0.007725
PLA2G5	-0.21935	-0.34911	0.727129	0.818957	0.726778	0.818757
PLA2G6	-0.6781	-1.12721	0.260108	0.398438	0.259601	0.397565
PLA2G7	1.762628	2.200991	0.028118	0.070258	0.027721	0.06934
PLA2R1	-0.99338	-1.48505	0.138058	0.245507	0.137386	0.244589

PLAA	-0.91006	-1.49755	0.134777	0.241407	0.134335	0.240984
PLAGL1	0.195425	0.292738	0.769824	0.847627	0.769445	0.847327
PLAGL2	1.649486	2.267204	0.023734	0.061494	0.023437	0.060858
PLAT	-2.78802	-5.30007	1.63E-07	2.97E-06	1.62E-07	2.96E-06
PLAU	4.655626	5.873263	7.09E-09	1.96E-07	6.50E-09	1.83E-07
PLAUR	0.848466	1.437476	0.151106	0.262647	0.150724	0.261983
PLB1	-1.13615	-1.60937	0.108062	0.203238	0.107363	0.202147
PLCB1	0.82431	1.816951	0.069725	0.144875	0.070136	0.145344
PLCB2	3.468863	5.109373	4.35E-07	7.03E-06	4.15E-07	6.81E-06
PLCB4	2.166788	3.147684	0.001728	0.007491	0.001693	0.007362
PLCD1	0.237304	0.432929	0.665223	0.772177	0.665106	0.771855
PLCG1	2.281551	5.053362	5.78E-07	9.05E-06	5.99E-07	9.39E-06
PLCG2	-1.4865	-1.81453	0.070096	0.145572	0.069365	0.144128
PLCL2	0.079898	0.101568	0.919133	0.951107	0.918935	0.950901
PLCXD1	-2.86605	-3.13819	0.001784	0.007691	0.001728	0.007492
PLD1	-0.45976	-0.98663	0.324222	0.465134	0.324791	0.465827
PLD2	1.461995	2.684113	0.007474	0.024789	0.007453	0.024774
PLEK	2.936046	4.380486	1.40E-05	0.000133	1.35E-05	0.000129
PLEK2	3.592952	4.354721	1.57E-05	0.000145	1.49E-05	0.000139
PLEKHA1	1.349288	2.396184	0.016873	0.047148	0.016807	0.046936
PLEKHA3	-1.45408	-1.94915	0.051745	0.11592	0.051221	0.114911
PLEKHA4	-1.22016	-1.40958	0.159184	0.272806	0.158016	0.271248
PLEKHF2	0.544841	0.70118	0.483463	0.616452	0.482409	0.615785
PLEKHG1	0.720739	1.665719	0.096293	0.185028	0.096979	0.186574
PLEKHH1	-0.07914	-0.0956	0.923872	0.954467	0.92367	0.954236
PLEKHM1	-0.6083	-0.98506	0.324993	0.465833	0.324396	0.465404
PLK1	-1.31065	-2.9235	0.003592	0.013715	0.003646	0.013896
PLK3	3.417882	12.37505	1.77E-31	8.33E-28	6.66E-31	3.13E-27
PLK4	-0.48657	-0.67378	0.50071	0.631182	0.499814	0.630468
PLN	2.904236	6.723698	4.14E-11	2.53E-09	4.50E-11	2.73E-09
PLOD1	-0.12489	-0.37743	0.705986	0.802451	0.707842	0.803749
PLOD2	0.552206	1.210334	0.226629	0.358397	0.227286	0.359677
PLOD3	-1.3798	-2.49921	0.012714	0.037478	0.012674	0.037417
PLP2	-0.12891	-0.2432	0.807937	0.873948	0.80792	0.873929
PLS3	0.114907	0.157004	0.875294	0.922226	0.875028	0.921908
PLSCR1	2.305734	3.28374	0.001084	0.005065	0.00106	0.004976
PLSCR3	1.278722	3.055891	0.002344	0.009689	0.002403	0.009898
PLTP	2.925167	5.689508	2.00E-08	4.69E-07	2.00E-08	4.72E-07
PLXNA3	-1.02343	-1.65709	0.098025	0.187972	0.09761	0.187404
PLXNB1	1.621445	2.566845	0.010505	0.032312	0.010398	0.032088
PLXNB3	0.443639	0.576943	0.564195	0.687329	0.563272	0.686739

PLXNC1	-0.85186	-1.3477	0.178264	0.297952	0.177665	0.297057
PML	0.957593	1.459545	0.14494	0.254566	0.144297	0.254007
PMP22	0.500315	0.78284	0.434031	0.570135	0.433367	0.569568
PMPCB	1.978462	4.261803	2.36E-05	0.000207	2.41E-05	0.000211
PMS1	-0.09271	-0.2459	0.805844	0.872286	0.806626	0.872931
PMVK	0.155298	0.362104	0.717402	0.810916	0.717993	0.81132
PNOC	2.625827	3.449756	0.000601	0.003123	0.000583	0.003039
PNPLA2	0.433098	0.733869	0.463316	0.599556	0.462901	0.599018
PNRC1	0.239061	0.247277	0.804778	0.871534	0.80418	0.870886
PODXL	-0.97342	-1.54005	0.124076	0.226381	0.123557	0.225521
POLA2	1.349375	2.929536	0.003524	0.013521	0.003566	0.013638
POLB	3.423063	5.570185	3.85E-08	8.34E-07	3.70E-08	8.12E-07
POLD1	-0.68665	-1.25158	0.211211	0.337724	0.211036	0.33737
POLD3	-0.1583	-0.33146	0.740411	0.827964	0.740639	0.827825
POLD4	-2.35033	-2.26425	0.023916	0.06183	0.023455	0.060871
POLE	-1.45699	-1.93765	0.053137	0.118081	0.052596	0.117158
POLG2	-0.65526	-1.6869	0.092143	0.179477	0.093321	0.181093
POLI	1.133055	1.874467	0.061353	0.131812	0.061068	0.131474
POLK	1.798636	4.708685	3.10E-06	3.78E-05	3.38E-06	4.04E-05
POLL	-1.39892	-1.96362	0.050037	0.112361	0.049572	0.111477
POLM	-0.16047	-0.16518	0.868854	0.91746	0.868446	0.917235
POLR1A	0.836861	0.921213	0.357311	0.497535	0.35589	0.496127
POLR1C	1.370695	2.435084	0.01518	0.043134	0.015119	0.043013
POLR2A	-0.55456	-0.77803	0.436858	0.572489	0.435928	0.57135
POLR2B	-0.24061	-0.63462	0.52592	0.654615	0.527582	0.656335
POLR2D	-0.08684	-0.09517	0.924209	0.954467	0.923984	0.954236
POLR2F	-0.18556	-0.4795	0.631757	0.743802	0.633011	0.74435
POLR2G	1.291444	3.914095	0.000101	0.000692	0.000112	0.000753
POLR2H	-0.2826	-0.91744	0.359284	0.499301	0.363277	0.502324
POLR2I	-0.78293	-1.33349	0.182878	0.303292	0.182486	0.302908
POLR2J	-1.1481	-1.51632	0.129966	0.234307	0.129082	0.23334
POLR2K	-0.09427	-0.27303	0.784922	0.858232	0.786124	0.858453
POLR2L	0.193602	0.200496	0.841161	0.897555	0.840671	0.897394
POLR3A	1.839706	2.971206	0.003085	0.012054	0.003048	0.011988
POLR3C	3.862051	7.638203	8.78E-14	1.06E-11	8.84E-14	1.12E-11
POLR3D	-0.44334	-0.78857	0.430678	0.567317	0.430414	0.56681
POMZP3	1.827372	2.693783	0.007263	0.024279	0.007159	0.023965
PON2	3.169103	3.8955	0.000109	0.000739	0.000105	0.000712
POSTN	5.151704	7.61641	1.02E-13	1.20E-11	9.21E-14	1.14E-11
POU2AF1	2.326015	3.28712	0.001071	0.005021	0.001047	0.00493
POU2F1	-0.66197	-0.86445	0.387686	0.527083	0.386571	0.52574

POU2F2	3.544153	6.221712	9.25E-10	3.24E-08	8.97E-10	3.17E-08
POU4F1	-3.0344	-2.77364	0.005716	0.019975	0.005553	0.019476
POU6F2	-3.51674	-4.17174	3.47E-05	0.000286	3.30E-05	0.000274
PPA2	-0.59991	-1.00981	0.312993	0.455438	0.31252	0.454892
PPARA	0.619905	0.708778	0.478739	0.612765	0.477491	0.611617
PPARG	-0.96588	-1.30314	0.193029	0.314706	0.192045	0.313734
PPAT	-1.83499	-2.29229	0.022235	0.058294	0.021898	0.057854
PPFIA1	0.760075	0.956507	0.339203	0.480486	0.337996	0.479354
PPFIBP1	-1.67194	-3.41386	0.000684	0.003478	0.000689	0.003501
PPFIBP2	-1.60733	-3.24085	0.001258	0.005731	0.001265	0.00576
PPIB	1.115311	2.869176	0.004261	0.015621	0.004399	0.016078
PPIC	1.358326	3.063701	0.002285	0.009469	0.002325	0.009626
PPIE	-1.76545	-3.49175	0.000515	0.00273	0.000517	0.002734
PPIG	2.043104	4.910972	1.17E-06	1.69E-05	1.24E-06	1.78E-05
PPIH	0.977639	1.948083	0.051872	0.116096	0.051965	0.116378
PPIL2	-0.17154	-0.22953	0.818536	0.882244	0.818135	0.882192
PPIL4	0.392006	0.941353	0.346904	0.487505	0.348148	0.48801
PPL	3.436219	6.633414	7.35E-11	3.97E-09	7.34E-11	3.92E-09
PPM1A	-2.52319	-3.63474	0.000302	0.001773	0.000294	0.001744
PPM1B	-0.05075	-0.11375	0.909477	0.945486	0.909629	0.945435
PPM1F	-0.59706	-1.90871	0.056778	0.12481	0.058755	0.127669
PPOX	1.587219	1.858955	0.063525	0.13522	0.062796	0.134155
PPP1CA	-2.78717	-4.38514	1.37E-05	0.000131	1.33E-05	0.000128
PPP1CB	1.900318	3.463627	0.000571	0.002992	0.000568	0.002976
PPP1CC	-0.128	-0.27034	0.786991	0.8592	0.7872	0.859373
PPP1R10	0.003713	0.004515	0.996399	0.997004	0.99639	0.997026
PPP1R12B	-0.75376	-1.17131	0.241942	0.376159	0.241242	0.375195
PPP1R13L	1.615041	3.394287	0.000734	0.003682	0.000742	0.003717
PPP1R15A	-1.72923	-4.69328	3.34E-06	4.00E-05	3.68E-06	4.36E-05
PPP1R16B	-1.16636	-2.06674	0.039188	0.092416	0.039068	0.092085
PPP1R1A	-1.12519	-1.64411	0.100678	0.192119	0.100056	0.191164
PPP1R2	-2.70556	-3.9357	9.27E-05	0.000647	8.99E-05	0.000633
PPP1R3F	-1.07878	-1.32389	0.186045	0.307134	0.184904	0.305787
PPP1R7	0.258787	0.316656	0.751615	0.833941	0.750989	0.833419
PPP1R8	-1.35389	-1.62382	0.104941	0.1988	0.104012	0.197358
PPP2CA	0.387455	0.656855	0.511527	0.640943	0.511136	0.640453
PPP2CB	-0.86494	-2.57728	0.010197	0.031529	0.010679	0.032678
PPP2R1A	0.381425	0.557523	0.577379	0.697783	0.576684	0.697123
PPP2R1B	2.99886	3.977857	7.81E-05	0.000562	7.51E-05	0.000544
PPP2R2A	-0.75909	-2.33943	0.019641	0.053024	0.020515	0.055052
PPP2R2B	0.687574	0.916068	0.360001	0.500001	0.358912	0.499079

PPP2R2D	-0.38397	-0.54901	0.5832	0.703192	0.582471	0.702312
PPP2R4	-0.45614	-0.87888	0.379817	0.518906	0.379862	0.518846
PPP2R5A	2.388332	2.394104	0.016968	0.047386	0.016617	0.046515
PPP2R5B	1.738145	2.439295	0.015006	0.042847	0.014801	0.042366
PPP2R5C	0.555585	1.007277	0.314209	0.45636	0.314003	0.456203
PPP2R5E	1.605262	2.052666	0.04054	0.0947	0.040052	0.093934
PPP3CA	2.434838	4.197232	3.11E-05	0.000261	3.06E-05	0.000258
PPP3CB	-0.61266	-0.90566	0.365479	0.504776	0.364633	0.503755
PPP3CC	0.268961	0.42409	0.671652	0.776763	0.67122	0.776186
PPP3R1	1.493691	2.637805	0.008562	0.027648	0.008519	0.027518
PPP6C	-0.55223	-1.90816	0.056849	0.12481	0.059347	0.128507
PPY	0.397134	0.472562	0.636698	0.747186	0.635786	0.746302
PQBP1	-0.19103	-0.45596	0.648585	0.75773	0.649403	0.758121
PRAF2	1.868756	3.472527	0.000553	0.00291	0.000551	0.002897
PRC1	0.113343	0.150657	0.880297	0.92535	0.880027	0.925101
PRCC	0.504646	0.941247	0.346958	0.487505	0.346866	0.487712
PRCP	-0.28969	-0.836	0.403492	0.541059	0.406154	0.543853
PRDM16	2.105305	2.584563	0.009986	0.031	0.009794	0.030586
PRDM2	-0.51655	-1.00062	0.317416	0.45974	0.317484	0.459436
PRDX1	-0.5548	-1.67808	0.093853	0.181724	0.096045	0.185005
PRDX2	-0.9138	-1.56754	0.117517	0.217178	0.117206	0.216707
PRDX3	0.987294	1.67016	0.095411	0.183934	0.095097	0.183631
PRDX4	-0.7301	-1.63761	0.102029	0.194222	0.102606	0.195321
PRDX5	4.437779	10.50256	8.54E-24	6.69E-21	1.03E-23	8.07E-21
PRDX6	-0.58998	-0.98753	0.32378	0.464946	0.323289	0.464401
PRELP	0.559904	0.561334	0.57478	0.696417	0.573553	0.695126
PREX1	0.869292	1.425889	0.154422	0.266931	0.153947	0.266207
PRF1	1.29706	1.796371	0.07294	0.15003	0.072341	0.149124
PRIC285	1.503187	1.837166	0.066681	0.140015	0.065972	0.138825
PRICKLE1	-0.56617	-1.31761	0.18814	0.309506	0.189091	0.310527
PRIM1	-1.53608	-1.55167	0.12127	0.222573	0.120086	0.220729
PRKAA1	0.124334	0.241708	0.809089	0.874993	0.809122	0.875028
PRKAB2	2.567283	4.872362	1.41E-06	1.99E-05	1.41E-06	1.98E-05
PRKACB	-0.26728	-0.30385	0.761348	0.841368	0.760687	0.840637
PRKAG1	0.213841	0.394945	0.693024	0.79415	0.692945	0.793771
PRKAG2	1.222364	2.392704	0.017032	0.047537	0.017056	0.047463
PRKAR1A	-1.27456	-2.61413	0.009171	0.029063	0.009217	0.029114
PRKAR1B	3.314393	4.762161	2.41E-06	3.04E-05	2.30E-06	2.95E-05
PRKAR2B	-0.11708	-0.29613	0.767237	0.846482	0.767992	0.846724
PRKCA	-0.50287	-0.66712	0.504953	0.634227	0.503979	0.63338
PRKCD	2.79719	5.588633	3.48E-08	7.57E-07	3.52E-08	7.76E-07

PRKCH	1.487759	1.566492	0.117762	0.217393	0.116634	0.215903
PRKCI	0.216642	0.425004	0.670987	0.77648	0.671067	0.776186
PRKCQ	-0.60146	-0.80375	0.421862	0.559246	0.420816	0.558395
PRKD1	2.996588	4.828565	1.75E-06	2.34E-05	1.69E-06	2.30E-05
PRKD3	3.01435	11.02295	7.53E-26	8.84E-23	2.35E-25	2.76E-22
PRKDC	-2.44384	-4.77624	2.25E-06	2.87E-05	2.26E-06	2.92E-05
PRKG2	2.030504	3.662221	0.000272	0.001632	0.00027	0.001626
PRKRIP1	0.296235	0.669046	0.503725	0.633421	0.504483	0.633637
PRKRIR	-0.46218	-0.48566	0.627384	0.740509	0.626321	0.739812
PRLR	0.645267	0.854761	0.393026	0.532034	0.391942	0.530719
PRND	-0.26899	-0.32271	0.747026	0.832206	0.746372	0.832212
PROC	-4.69933	-4.67651	3.61E-06	4.27E-05	3.36E-06	4.03E-05
PROCR	-1.24525	-2.64794	0.008312	0.026961	0.00838	0.027219
PRODH2	-0.50623	-0.94056	0.347308	0.487851	0.3472	0.487712
PROM1	1.402435	1.447255	0.14835	0.259006	0.14708	0.257555
PROSC	1.870571	1.907735	0.056904	0.12481	0.056122	0.123606
PRPF18	1.671835	4.220668	2.81E-05	0.00024	2.99E-05	0.000252
PRPF3	-1.17537	-2.04347	0.041443	0.096094	0.04129	0.095975
PRPF31	1.866191	2.419289	0.015848	0.044683	0.015599	0.044113
PRPF4	0.852314	1.106605	0.26891	0.40733	0.267773	0.406371
PRPF4B	-0.32486	-0.82609	0.40908	0.547303	0.410684	0.548609
PRPF8	-0.93512	-1.65071	0.099323	0.19015	0.099108	0.189737
PRPH	-0.62758	-0.96376	0.335556	0.477046	0.334805	0.475834
PRPS1	2.146122	3.469889	0.000558	0.002934	0.000549	0.00289
PRPS2	1.66742	3.520335	0.000464	0.002514	0.00047	0.002539
PRPSAP1	-2.72985	-2.91052	0.003743	0.014164	0.003638	0.013887
PRPSAP2	1.231779	3.037874	0.002486	0.010171	0.00256	0.010371
PRR3	-0.39729	-1.66749	0.09594	0.184651	0.101557	0.193559
PRRG1	1.833171	1.87216	0.061672	0.132356	0.060853	0.131174
PRRG2	1.26177	2.876146	0.004169	0.015352	0.004239	0.015591
PRRX1	-1.47509	-2.68824	0.007383	0.024541	0.007359	0.024513
PRSS16	-0.09942	-0.20047	0.841181	0.897555	0.841263	0.897514
PRSS21	-0.8459	-1.13678	0.256086	0.393593	0.255027	0.392356
PRSS23	-0.75058	-1.44462	0.149088	0.260005	0.14912	0.259964
PRSS8	0.610388	1.257334	0.209124	0.33534	0.209458	0.33599
PRTFDC1	-0.52386	-0.90004	0.36846	0.507386	0.368061	0.506912
PSAP	-1.53987	-4.21156	2.93E-05	0.000248	3.18E-05	0.000265
PSCA	3.929398	3.855622	0.000128	0.000841	0.000122	0.000809
PSD	2.74564	4.187599	3.24E-05	0.00027	3.15E-05	0.000263
PSD4	3.337396	8.301092	6.89E-16	1.16E-13	8.23E-16	1.38E-13
PSEN1	1.781727	5.159537	3.37E-07	5.62E-06	3.91E-07	6.47E-06

PSEN2	-1.0513	-1.73941	0.082477	0.164884	0.082141	0.164211
PSIP1	-1.76204	-4.66879	3.74E-06	4.41E-05	4.09E-06	4.72E-05
PSMA1	-1.36693	-2.26773	0.023702	0.061444	0.02355	0.061051
PSMA2	-0.08884	-0.20201	0.83998	0.897455	0.840274	0.897394
PSMA3	0.418548	0.988935	0.323095	0.464387	0.324235	0.465315
PSMA5	-0.63014	-1.19407	0.232923	0.366255	0.232896	0.366655
PSMA6	-0.6345	-1.47989	0.13943	0.247012	0.140293	0.248447
PSMB1	-0.00904	-0.03306	0.973637	0.98254	0.973943	0.982725
PSMB10	-1.48086	-4.42829	1.13E-05	0.000112	1.28E-05	0.000124
PSMB2	-0.74445	-2.32449	0.020433	0.054722	0.021371	0.056811
PSMB3	-0.47885	-1.40734	0.159847	0.273495	0.162372	0.277105
PSMB5	1.52594	1.930798	0.05398	0.119617	0.053386	0.11858
PSMB7	-0.29336	-0.53407	0.593493	0.712301	0.593349	0.711965
PSMB8	-0.86404	-1.97141	0.049138	0.110766	0.049566	0.111477
PSMB9	0.499437	0.839768	0.401374	0.539417	0.400911	0.538557
PSMC2	2.43262	3.633943	0.000303	0.001773	0.000296	0.001751
PSMC3	-2.55168	-7.85556	1.85E-14	2.56E-12	2.73E-14	3.77E-12
PSMC4	0.432251	0.941308	0.346927	0.487505	0.347574	0.48781
PSMC5	0.584664	1.763676	0.078297	0.158619	0.08027	0.161848
PSMC6	1.505729	2.180736	0.029592	0.073351	0.029287	0.072753
PSMD1	1.705739	5.616555	2.99E-08	6.62E-07	3.88E-08	8.45E-07
PSMD12	1.979284	3.203521	0.00143	0.006407	0.00141	0.006336
PSMD13	0.437634	1.974087	0.048832	0.110235	0.053437	0.118638
PSMD14	-1.15	-2.05749	0.040072	0.093818	0.039965	0.093823
PSMD5	-0.58414	-0.90039	0.368276	0.507297	0.367541	0.506434
PSMD8	0.116268	0.322668	0.74706	0.832206	0.748259	0.83258
PSME1	-1.96609	-4.85583	1.53E-06	2.09E-05	1.64E-06	2.24E-05
PSME2	-0.2868	-0.72962	0.465908	0.602247	0.467439	0.603561
PSME3	-1.07973	-1.67971	0.093536	0.181433	0.09305	0.180717
PSMF1	0.441404	0.624079	0.532814	0.660223	0.531997	0.659559
PSORS1C2	-0.96947	-1.13617	0.256342	0.393856	0.255031	0.392356
PSPH	2.269574	2.622138	0.008961	0.028533	0.008769	0.028062
PTBP1	1.456628	6.497002	1.73E-10	7.88E-09	3.70E-10	1.45E-08
PTDSS1	0.386325	0.575079	0.565454	0.688113	0.564782	0.687867
PTDSS2	1.289144	2.304388	0.021543	0.057075	0.021471	0.057014
PTEN	-0.25279	-0.42131	0.673678	0.77834	0.673358	0.77797
PTER	-1.54015	-1.89593	0.058451	0.127127	0.057802	0.12613
PTGER2	-1.54209	-1.82673	0.068239	0.142255	0.06749	0.14122
PTGER3	2.129023	5.342116	1.31E-07	2.45E-06	1.43E-07	2.64E-06
PTGER4	1.124143	1.835617	0.066911	0.140268	0.066587	0.139777
PTGES	2.568698	3.15734	0.001672	0.007278	0.001626	0.007096

PTGIR	0.419303	0.423197	0.672304	0.777325	0.671318	0.776186
PTGIS	-0.15695	-0.19896	0.842362	0.898057	0.841978	0.897704
PTGS2	1.246707	1.533877	0.125589	0.228167	0.124612	0.226656
PTHLH	1.525588	2.546773	0.011122	0.03378	0.011037	0.033512
PTK2	0.920272	2.43872	0.015029	0.042889	0.015443	0.04383
PTK2B	-1.10802	-2.64473	0.00839	0.02714	0.008552	0.027575
PTK6	0.379822	0.699482	0.484523	0.61731	0.484394	0.616811
PTMS	0.101987	0.267414	0.789243	0.861259	0.790049	0.862138
PTP4A1	-0.2419	-0.63493	0.525718	0.654537	0.527347	0.656216
PTPLB	0.622681	2.291096	0.022305	0.058402	0.023928	0.061827
PTPN1	-2.5048	-3.51893	0.000466	0.002524	0.000454	0.002469
PTPN11	0.582195	1.105995	0.269173	0.407454	0.269157	0.40755
PTPN12	-0.06618	-0.08815	0.929783	0.957909	0.929625	0.957746
PTPN13	0.642777	1.206566	0.228077	0.360214	0.228012	0.360463
PTPN14	1.389255	1.61006	0.107912	0.203038	0.10693	0.201593
PTPN18	0.562704	1.867709	0.062292	0.133259	0.064634	0.136777
PTPN2	0.94428	2.51024	0.012328	0.036625	0.01269	0.037441
PTPN21	-1.02349	-1.77471	0.076455	0.155693	0.076228	0.1555
PTPN22	-0.27387	-0.60538	0.545158	0.67092	0.545768	0.671319
PTPN23	3.281248	5.15528	3.45E-07	5.71E-06	3.31E-07	5.54E-06
PTPN3	0.456901	1.042669	0.297523	0.439321	0.298443	0.440402
PTPN4	2.230362	5.154371	3.46E-07	5.71E-06	3.65E-07	6.08E-06
PTPN7	-2.57566	-2.81493	0.005039	0.018026	0.00491	0.01763
PTPN9	0.204506	0.528346	0.597455	0.715606	0.598802	0.716583
PTPRB	2.603114	2.867195	0.004287	0.015705	0.004174	0.015387
PTPRC	-0.16221	-0.28822	0.773275	0.849952	0.773148	0.84963
PTPRE	0.593798	0.93636	0.349466	0.489273	0.348792	0.48848
PTPRF	1.614542	3.249358	0.001222	0.005616	0.001228	0.005614
PTPRM	0.009658	0.012415	0.990098	0.993056	0.990074	0.993032
PTPRN2	0.378523	0.861743	0.389175	0.527885	0.390064	0.528938
PTPRO	3.070475	4.225314	2.76E-05	0.000236	2.65E-05	0.000228
PTPRR	-1.51904	-1.80202	0.072045	0.14871	0.071274	0.147376
PTPRS	-0.7768	-1.91387	0.056113	0.123644	0.056837	0.124653
PTPRT	-1.49607	-1.7797	0.075634	0.154421	0.074844	0.153141
PTPRU	0.134721	0.272127	0.785619	0.858377	0.785732	0.858424
PTPRZ1	-0.79811	-1.4473	0.148338	0.259006	0.148165	0.258735
PTRF	-2.82168	-7.13028	2.90E-12	2.62E-10	3.37E-12	3.09E-10
PTS	-1.86258	-3.34145	0.000885	0.004285	0.00088	0.004276
PTTG1	1.194324	1.761552	0.078656	0.15914	0.078124	0.158405
PTTG1IP	-1.10692	-2.82254	0.004923	0.017703	0.005072	0.018114
PTX3	-1.25497	-2.13673	0.033025	0.08059	0.032866	0.080203

PUM2	-2.41749	-2.73715	0.006382	0.021782	0.006231	0.021362
PURA	0.629578	0.667891	0.504461	0.633948	0.503156	0.632986
PURB	-0.14399	-0.17698	0.859585	0.912181	0.859225	0.911799
PVRL1	0.427448	0.562637	0.573893	0.69586	0.573005	0.694911
PVRL2	-0.11254	-0.15798	0.874528	0.921794	0.874275	0.921528
PWP1	0.87824	1.15562	0.248298	0.384388	0.247201	0.383195
PXK	-0.81949	-2.08858	0.037168	0.088373	0.037824	0.089603
PXMP2	3.30825	4.704786	3.16E-06	3.83E-05	3.02E-06	3.69E-05
PXMP4	0.80212	1.896504	0.058375	0.12702	0.058969	0.128016
PYGB	1.101885	1.929213	0.054177	0.119997	0.054008	0.119723
PYGL	-2.32547	-4.68827	3.42E-06	4.08E-05	3.45E-06	4.11E-05
PYGM	3.100681	4.492822	8.44E-06	8.66E-05	8.11E-06	8.42E-05
QARS	-1.27768	-4.9384	1.02E-06	1.50E-05	1.41E-06	1.98E-05
QDPR	0.506379	0.640812	0.52189	0.650978	0.520859	0.649691
QPCT	-0.53297	-1.00598	0.31483	0.45698	0.314787	0.456635
RAB11A	1.346292	1.807891	0.071126	0.147006	0.070496	0.14596
RAB11B	0.281844	0.77524	0.438505	0.573927	0.440678	0.576148
RAB11FIP1	2.044216	3.803525	0.000157	0.001007	0.000157	0.001006
RAB11FIP3	-0.05457	-0.14672	0.883404	0.927407	0.883907	0.92771
RAB14	-1.07731	-3.08127	0.002156	0.008999	0.002279	0.009469
RAB18	0.831222	1.878864	0.060749	0.131033	0.061207	0.131658
RAB1A	-0.33658	-0.60328	0.546552	0.672056	0.546346	0.671854
RAB20	0.544873	0.888976	0.374373	0.513588	0.373807	0.512812
RAB23	0.989807	1.858295	0.063618	0.135297	0.06358	0.135277
RAB26	-1.07677	-1.04433	0.296754	0.438598	0.295167	0.437078
RAB27A	0.572106	0.841379	0.400472	0.538546	0.399628	0.537872
RAB31	1.158233	1.314821	0.189074	0.310584	0.18781	0.309071
RAB32	-0.11284	-0.11589	0.907778	0.944138	0.907489	0.944046
RAB33A	-0.76213	-0.92823	0.353662	0.49397	0.3524	0.492208
RAB36	2.660396	3.908921	0.000103	0.000705	0.0001	0.000692
RAB37	0.992613	1.257128	0.209198	0.335345	0.208071	0.334109
RAB38	0.538293	0.848541	0.396476	0.53501	0.395815	0.534117
RAB3A	-0.61977	-1.6728	0.09489	0.183231	0.096349	0.185437
RAB40B	0.633295	0.957723	0.338589	0.480051	0.337796	0.479216
RAB4A	-0.04154	-0.05011	0.960053	0.976418	0.959947	0.976358
RAB4B	0.295621	0.322195	0.747417	0.832206	0.746689	0.832212
RAB5A	1.286776	2.766252	0.005846	0.020397	0.005903	0.020431
RAB5C	-1.07958	-2.43143	0.015332	0.043489	0.015508	0.043921
RAB6A	0.626874	1.383977	0.166882	0.283055	0.167517	0.283927
RAB7L1	-1.35124	-2.81132	0.005096	0.018157	0.005131	0.018237
RAB8B	0.029576	0.048659	0.961208	0.976705	0.961164	0.976618

RAB9A	1.652021	3.103753	0.002001	0.008435	0.001998	0.008436
RAB9B	0.604402	0.622269	0.534002	0.661173	0.532718	0.660104
RABEP1	0.942007	1.352293	0.176793	0.296231	0.175963	0.294945
RABGAP1	2.675465	4.309672	1.91E-05	0.000174	1.86E-05	0.000169
RABGGTA	-0.39489	-0.60626	0.54457	0.670372	0.543944	0.669602
RABGGTB	0.107546	0.319131	0.749738	0.833218	0.751245	0.833419
RABIF	0.947244	1.622368	0.105252	0.199228	0.104953	0.198662
RAD1	-0.39896	-0.42202	0.673164	0.778128	0.672219	0.777036
RAD17	-0.047	-0.08148	0.935085	0.962317	0.935036	0.962266
RAD21	-0.2513	-0.42839	0.668518	0.774473	0.668242	0.774279
RAD23B	-0.3207	-0.40494	0.685665	0.787928	0.684925	0.787603
RAD50	-0.31041	-0.41442	0.678714	0.782236	0.678029	0.781638
RAD51	0.737425	2.046927	0.041102	0.095633	0.0421	0.097376
RAD51C	0.10368	0.170183	0.864924	0.914337	0.864771	0.914175
RAD51L1	0.084608	0.203193	0.839053	0.897455	0.839463	0.897394
RAD51L3	2.059897	2.600237	0.009546	0.029961	0.009368	0.02951
RAD54L	0.866119	2.635122	0.008629	0.027797	0.009085	0.028736
RAE1	-0.03033	-0.04071	0.967541	0.979947	0.967468	0.979949
RAF1	-0.50027	-0.58019	0.562005	0.685549	0.560913	0.684751
RAGE	1.012264	1.700438	0.089569	0.175876	0.08925	0.175145
RAI14	2.092598	2.938582	0.003424	0.013203	0.003359	0.013005
RALA	1.48156	3.71872	0.000219	0.001355	0.000229	0.001414
RALB	4.175515	6.515413	1.54E-10	7.35E-09	1.44E-10	7.06E-09
RALBP1	-0.99013	-1.85769	0.063704	0.135356	0.063664	0.135394
RALGDS	-0.93361	-1.38948	0.165204	0.280469	0.164473	0.279594
RALY	0.397356	0.851734	0.394703	0.533382	0.395252	0.533664
RAMP1	1.816795	2.201072	0.028112	0.070258	0.027698	0.069319
RAMP2	-0.02413	-0.0415	0.966914	0.979947	0.966887	0.979949
RAN	1.531614	3.371931	0.000795	0.003927	0.000808	0.003995
RANBP1	-0.75062	-2.99184	0.002887	0.011432	0.003319	0.012873
RANBP3	-0.77764	-1.74778	0.081016	0.163073	0.081535	0.163417
RANGAP1	1.525545	6.561751	1.15E-10	5.71E-09	2.35E-10	1.04E-08
RAP1A	0.116753	0.21994	0.825993	0.886947	0.825975	0.887124
RAP1GDS1	0.068658	0.173224	0.862534	0.913925	0.862984	0.913541
RAP2A	-0.29826	-0.36303	0.716708	0.810717	0.715997	0.809912
RAPGEF1	2.108932	2.265164	0.02386	0.061723	0.023437	0.060858
RAPGEF3	1.095561	2.370171	0.018096	0.049849	0.01824	0.050046
RAPGEF4	0.205371	0.542373	0.587764	0.706519	0.589271	0.70815
RARA	-0.22333	-0.47799	0.632833	0.744182	0.633223	0.74435
RARB	-1.59046	-2.81373	0.005058	0.018065	0.00503	0.018006
RARG	-0.69391	-0.82806	0.407969	0.546128	0.406706	0.544437

RARRES1	0.799322	0.921241	0.357296	0.497535	0.355944	0.496127
RARRES2	-2.44565	-3.39084	0.000743	0.003706	0.000724	0.003642
RARRES3	-0.66662	-0.98036	0.327303	0.468003	0.326436	0.467371
RARS	0.263019	1.005263	0.315177	0.457201	0.32154	0.463712
RASA1	3.060558	5.097878	4.62E-07	7.40E-06	4.48E-07	7.24E-06
RASAL2	0.074799	0.13342	0.893907	0.934259	0.893848	0.934198
RASD1	1.588231	2.845723	0.004583	0.016659	0.004561	0.016566
RASGEF1C	0.772544	1.1356	0.256579	0.394082	0.255725	0.392909
RASGRP1	-0.12547	-0.28685	0.774323	0.850669	0.774747	0.851171
RASGRP3	1.753211	2.852392	0.004489	0.016356	0.00444	0.016216
RASL11A	1.241508	1.437204	0.151183	0.262684	0.150041	0.260997
RASSF2	0.481342	1.206546	0.228084	0.360214	0.229574	0.362445
RASSF4	0.595318	1.138737	0.255269	0.392791	0.255281	0.392483
RBAK	0.806446	1.76221	0.078545	0.158984	0.078955	0.159676
RBBP4	-2.24618	-6.40492	3.05E-10	1.22E-08	3.75E-10	1.46E-08
RBBP6	0.376853	0.706761	0.47999	0.613819	0.479927	0.613552
RBBP7	-0.34071	-0.86634	0.386651	0.526284	0.388277	0.527126
RBBP8	-0.15177	-0.25233	0.800876	0.869618	0.80067	0.869306
RBL1	0.323955	0.371548	0.710361	0.805222	0.709579	0.804872
RBM14	-0.00982	-0.03187	0.974586	0.982741	0.974797	0.982953
RBM15	0.777282	2.059959	0.039835	0.093464	0.040648	0.094854
RBM15B	-0.29486	-0.40919	0.68255	0.785818	0.681925	0.785166
RBM17	0.505227	0.547135	0.58449	0.704205	0.583361	0.702845
RBM3	-0.23604	-0.51351	0.607782	0.724468	0.60826	0.724772
RBM4	-0.49572	-1.10966	0.267592	0.406359	0.268388	0.406649
RBM6	-0.97396	-1.788	0.074282	0.152257	0.074186	0.15206
RBM8A	-1.39587	-4.5464	6.61E-06	7.16E-05	7.85E-06	8.20E-05
RBM9	-0.88119	-3.14381	0.00175	0.007554	0.001962	0.008299
RBMS1	-0.44688	-0.57551	0.56516	0.68797	0.564223	0.687502
RBMS2	-0.01289	-0.02112	0.98316	0.988417	0.98314	0.988398
RBMX	-0.72481	-2.73155	0.00649	0.022071	0.00719	0.024019
RBP1	3.78306	5.453982	7.22E-08	1.47E-06	6.81E-08	1.40E-06
RBP4	-5.84985	-6.49486	1.75E-10	7.91E-09	1.54E-10	7.41E-09
RBP7	1.776221	2.249958	0.024814	0.063717	0.024458	0.062885
RBPMS	-0.67751	-1.18281	0.237355	0.371238	0.237019	0.371032
RBX1	-0.46045	-0.87603	0.381363	0.519908	0.381354	0.519827
RCE1	-1.40048	-2.07362	0.038542	0.091166	0.0382	0.090449
RCL1	3.768816	4.029053	6.32E-05	0.000471	6.00E-05	0.000453
RCN2	0.881798	2.161058	0.031087	0.076457	0.031569	0.077561
RCOR1	1.78271	2.929792	0.003521	0.013521	0.003483	0.013419
RCOR3	-0.36036	-0.45531	0.649049	0.757896	0.648236	0.757271

RDBP	0.0033	0.009074	0.992763	0.99427	0.992797	0.994278
RDH11	0.691643	2.146421	0.032241	0.0788	0.033498	0.081297
RDH13	2.660015	3.568979	0.000387	0.002166	0.000376	0.002129
RDH14	-0.75975	-2.50689	0.012444	0.036877	0.013223	0.038745
RDH5	1.410787	2.89617	0.003916	0.014594	0.00394	0.014754
RECK	0.717547	1.26261	0.207221	0.332971	0.206922	0.332377
RECQL4	0.886385	1.184243	0.236787	0.37096	0.235731	0.369681
RECQL5	0.607664	1.01216	0.311871	0.454228	0.311364	0.453707
REG1A	-4.2877	-3.51571	0.000472	0.002549	0.00045	0.002453
REG1B	-8.73676	-6.95377	9.35E-12	7.09E-10	7.84E-12	6.25E-10
REL	1.515153	2.510697	0.012312	0.036601	0.012217	0.03635
RELA	0.798619	0.986963	0.32406	0.465134	0.322817	0.464205
RELB	0.88283	1.044951	0.296468	0.438356	0.295153	0.437078
REPIN1	-0.60916	-0.92108	0.357378	0.497535	0.356588	0.496877
REPS2	1.067177	1.899727	0.05795	0.126504	0.057805	0.12613
RER1	-0.56736	-1.603	0.109463	0.205025	0.111328	0.207883
RERE	0.183261	0.255374	0.798522	0.867959	0.798116	0.867718
RERG	0.826479	1.12014	0.263104	0.401567	0.262058	0.400521
RET	0.591426	0.839607	0.401464	0.539417	0.400535	0.538557
REV3L	2.021987	3.393918	0.000735	0.003682	0.000725	0.003646
RFC1	-2.23308	-4.61491	4.81E-06	5.44E-05	4.89E-06	5.52E-05
RFC3	-0.39389	-0.52096	0.602588	0.720286	0.601755	0.719473
RFC4	2.260625	3.708047	0.000228	0.001406	0.000224	0.001391
RFFL	-2.16752	-2.10724	0.035513	0.084985	0.034912	0.083671
RFPL3S	1.640152	2.459657	0.014189	0.041013	0.014025	0.040615
RFX2	2.009979	3.696045	0.000239	0.001461	0.000238	0.001457
RFX3	-0.20915	-0.46636	0.641127	0.751632	0.641668	0.751892
RFX5	-1.05909	-1.7291	0.084307	0.167616	0.083939	0.166955
RFXANK	1.486285	2.369095	0.018148	0.04994	0.017993	0.049629
RFXAP	-1.03611	-3.58338	0.000367	0.002077	0.000419	0.002316
RG9MTD2	0.610318	1.614755	0.106891	0.2016	0.108318	0.203638
RG9MTD3	-0.83773	-0.89273	0.372361	0.511725	0.370904	0.509871
RGL2	-0.0378	-0.04628	0.963103	0.97792	0.963007	0.977902
RGN	1.647103	3.188497	0.001505	0.006679	0.001507	0.006675
RGS1	2.168942	2.65581	0.008123	0.026475	0.007958	0.026047
RGS10	0.706674	1.108509	0.268088	0.406456	0.267403	0.405942
RGS11	0.755704	1.405323	0.160445	0.274314	0.160352	0.274456
RGS12	0.980968	1.650483	0.099369	0.190161	0.099036	0.189679
RGS13	-0.03969	-0.06576	0.947588	0.969241	0.947531	0.969183
RGS16	-0.75203	-0.92734	0.354125	0.494471	0.352885	0.492739
RGS19	0.832339	1.351848	0.176935	0.296363	0.176409	0.295481

RGS2	1.129905	2.279645	0.02298	0.059837	0.02305	0.060052
RGS3	0.980736	1.568022	0.117405	0.217074	0.116922	0.216352
RGS4	2.530474	3.32699	0.000932	0.004469	0.000906	0.004369
RGS5	1.473949	2.229949	0.026121	0.066219	0.025876	0.065738
RGS6	1.61446	3.031441	0.002539	0.010342	0.002535	0.010316
RHBDF1	-0.55114	-1.6136	0.107141	0.201991	0.109238	0.204712
RHEB	1.183142	2.375718	0.017829	0.049379	0.017882	0.049429
RHOA	-1.92316	-4.09355	4.83E-05	0.000378	4.92E-05	0.000381
RHOC	2.127989	6.978435	7.95E-12	6.44E-10	1.17E-11	8.70E-10
RHOJ	-0.21249	-0.40579	0.685042	0.787597	0.685047	0.787603
RHOQ	1.336185	3.316378	0.000967	0.004605	0.001002	0.004751
RHOT2	1.397078	3.60899	0.000333	0.001924	0.00035	0.002008
RIN1	0.126578	0.190633	0.848878	0.903062	0.84863	0.902798
RING1	0.121272	0.505166	0.613629	0.729538	0.619408	0.733304
RIOK2	-1.13586	-2.23889	0.02553	0.065107	0.025572	0.065285
RIPK1	2.18133	2.811429	0.005094	0.018157	0.004988	0.017868
RIPK3	1.541102	3.981316	7.70E-05	0.000557	8.16E-05	0.000582
RNASE1	4.609859	6.971183	8.34E-12	6.64E-10	7.67E-12	6.22E-10
RNASE6	0.012346	0.013564	0.989182	0.992561	0.98915	0.992529
RNASEH1	1.415059	2.132882	0.033341	0.081151	0.033047	0.080478
RNASEH2A	-1.36879	-2.23227	0.025967	0.065918	0.025789	0.065624
RNASET2	-1.41497	-3.50672	0.000488	0.002611	0.000507	0.002695
RND1	-0.2825	-0.42132	0.673672	0.77834	0.673144	0.777914
RNF10	-1.43863	-1.99381	0.046626	0.105764	0.046168	0.104877
RNF121	-0.16861	-0.6398	0.522551	0.651456	0.527898	0.656555
RNF13	-0.93164	-1.77064	0.077131	0.156863	0.077119	0.156638
RNF130	-0.02417	-0.05544	0.955805	0.974148	0.955892	0.974173
RNF135	-0.6205	-1.78098	0.075424	0.154261	0.077051	0.156638
RNF138	0.988631	2.254581	0.024521	0.063045	0.02479	0.063608
RNF14	1.970202	4.374604	1.44E-05	0.000135	1.48E-05	0.000138
RNF141	0.20182	0.556168	0.578304	0.698652	0.580121	0.700197
RNF146	-0.89152	-1.17396	0.240879	0.375064	0.23979	0.373802
RNF167	-0.79038	-2.73036	0.006513	0.022134	0.007061	0.023704
RNF2	-1.66365	-3.63719	0.000299	0.001759	0.000305	0.001799
RNF34	-0.80356	-1.81351	0.070254	0.145751	0.070747	0.146352
RNF38	0.349808	0.502231	0.61569	0.730927	0.615013	0.730678
RNF4	-0.71004	-1.75496	0.079779	0.161066	0.08068	0.162305
RNF40	0.274413	0.436675	0.662504	0.769783	0.66208	0.769479
RNF44	-0.96088	-1.62191	0.10535	0.199334	0.105016	0.198701
RNF6	-0.58785	-0.782	0.434522	0.570621	0.433478	0.569568
RNF7	-0.67216	-1.5858	0.113313	0.210836	0.114154	0.212149

RNF8	1.384869	4.03809	6.09E-05	0.000457	6.71E-05	0.000498
RNGTT	-0.7674	-1.53542	0.12521	0.227831	0.125376	0.22778
ROBO1	-4.30121	-4.87537	1.39E-06	1.98E-05	1.30E-06	1.86E-05
ROCK1	2.899477	4.712729	3.04E-06	3.72E-05	2.96E-06	3.63E-05
ROD1	0.378314	0.971108	0.331887	0.473405	0.333614	0.475004
ROM1	2.185135	4.732201	2.77E-06	3.41E-05	2.85E-06	3.52E-05
ROR2	2.470361	3.228991	0.00131	0.00595	0.001276	0.0058
RORA	-0.21719	-0.41152	0.680835	0.784296	0.680819	0.784085
RORC	-0.57314	-0.82645	0.408877	0.547187	0.407989	0.545999
RP2	1.201984	1.483949	0.138349	0.245931	0.137336	0.244589
RPA2	-0.49085	-1.69134	0.091293	0.178307	0.094522	0.182896
RPA3	0.095057	0.151614	0.879542	0.925005	0.879384	0.924839
RPE	1.38929	2.6791	0.007585	0.025106	0.00759	0.025157
RPGR	1.135412	2.516069	0.012128	0.036145	0.012259	0.036444
RPIA	-0.91161	-2.12685	0.033841	0.082007	0.03423	0.082714
RPL10A	1.650582	5.255125	2.06E-07	3.64E-06	2.54E-07	4.39E-06
RPL13A	0.944054	2.682586	0.007508	0.024884	0.007831	0.025791
RPL18	-0.45017	-1.46056	0.144661	0.254217	0.148004	0.258713
RPL27A	-0.57954	-1.58774	0.112874	0.210185	0.114559	0.212817
RPL28	-0.56415	-0.84527	0.398301	0.536855	0.397502	0.535472
RPL30	1.459254	4.408041	1.24E-05	0.00012	1.41E-05	0.000133
RPL35	-0.31279	-1.0533	0.292631	0.43538	0.297106	0.43898
RPL35A	0.341637	0.795462	0.42666	0.563604	0.427661	0.564767
RPL36AL	-0.3703	-0.86255	0.388733	0.527668	0.389762	0.528834
RPL37	1.157278	2.945841	0.003346	0.012933	0.003455	0.013331
RPL5	-0.38147	-1.38239	0.167369	0.283574	0.17223	0.290137
RPL6	-0.45071	-0.92003	0.35793	0.49786	0.358239	0.498438
RPL9	0.718496	1.323486	0.186179	0.307248	0.186048	0.306601
RPN1	0.733323	2.572156	0.010347	0.03191	0.011161	0.033825
RPS13	0.866018	2.333017	0.019978	0.053716	0.020522	0.055052
RPS14	1.422496	5.24814	2.14E-07	3.76E-06	2.94E-07	5.01E-06
RPS15A	0.188528	0.579349	0.562572	0.686063	0.565304	0.688007
RPS16	-0.02224	-0.0787	0.9373	0.963541	0.937964	0.963865
RPS20	1.967094	5.444923	7.58E-08	1.53E-06	8.70E-08	1.75E-06
RPS21	-2.03299	-1.88412	0.060034	0.129668	0.05917	0.128216
RPS23	0.512363	0.724526	0.469026	0.604283	0.468141	0.603837
RPS24	-0.69893	-1.29715	0.195081	0.317479	0.194976	0.317528
RPS25	0.075118	0.250823	0.802037	0.869717	0.803784	0.870658
RPS27A	0.742845	2.798723	0.005296	0.018701	0.005894	0.020414
RPS28	0.282348	0.947906	0.34356	0.485814	0.347991	0.487935
RPS3	-1.21337	-3.74986	0.000194	0.001215	0.000215	0.001338

RPS4X	-1.02164	-3.35913	0.000832	0.00408	0.000921	0.004414
RPS4Y1	-2.72377	-2.24281	0.025275	0.064666	0.024751	0.063568
RPS5	0.432603	0.696379	0.486462	0.618632	0.485909	0.61807
RPS6KA1	-0.56756	-1.30467	0.192506	0.314269	0.193393	0.315498
RPS6KA3	-0.3368	-0.70124	0.483429	0.616452	0.483801	0.616724
RPS6KA4	1.204873	2.67152	0.007757	0.02559	0.00785	0.025802
RPS6KA5	-1.31482	-2.33381	0.019936	0.053692	0.019862	0.053557
RPS6KB1	0.141256	0.392477	0.694845	0.794785	0.696274	0.796226
RPS6KB2	1.647641	5.809303	1.02E-08	2.61E-07	1.43E-08	3.55E-07
RPS6KC1	-0.04655	-0.10525	0.916216	0.949259	0.916366	0.94919
RPS6KL1	2.310708	2.084373	0.03755	0.089012	0.036897	0.08776
RPS9	-0.01113	-0.04021	0.967936	0.979947	0.968297	0.979949
RQCD1	-2.21826	-2.40792	0.016345	0.045837	0.016026	0.045096
RRAGA	-1.26859	-1.89876	0.058077	0.126663	0.05765	0.125951
RRAGB	0.241626	0.499314	0.617742	0.732808	0.618013	0.733065
RRAGD	0.536417	0.990394	0.322382	0.464214	0.322248	0.464022
RRAS	0.34553	0.777898	0.436937	0.572489	0.437733	0.573237
RRBP1	-0.07016	-0.17833	0.858523	0.911465	0.859001	0.911767
RRM1	0.535591	0.930441	0.352518	0.492519	0.352156	0.492043
RRM2B	-0.0625	-0.1287	0.897636	0.937739	0.897711	0.937742
RSAD2	1.097095	1.248032	0.212508	0.339262	0.211204	0.337524
RSBN1	1.096943	1.50744	0.132226	0.237471	0.131403	0.236445
RSU1	-0.66275	-1.66699	0.096041	0.18477	0.097122	0.186774
RTCD1	3.117505	6.23759	8.41E-10	2.99E-08	8.51E-10	3.05E-08
RTN3	-0.70741	-1.12847	0.259575	0.397783	0.258942	0.396813
RTN4	0.879653	1.685674	0.09238	0.179862	0.092392	0.17996
RUFY1	-0.57736	-0.93576	0.349773	0.489411	0.349181	0.488874
RUNX1	1.917608	4.007125	6.92E-05	0.000509	7.02E-05	0.000518
RUNX2	1.012746	1.888326	0.059466	0.128738	0.059414	0.128507
RUNX3	-1.97608	-2.76269	0.005909	0.020539	0.005807	0.020293
RUVBL1	-0.4546	-0.94786	0.343584	0.485814	0.344	0.486518
RXRA	2.913363	4.621125	4.68E-06	5.31E-05	4.54E-06	5.17E-05
RXRG	-2.33098	-4.59402	5.31E-06	5.91E-05	5.33E-06	5.95E-05
RYBP	0.978506	1.72548	0.084958	0.168695	0.084756	0.168153
RYK	0.019872	0.03927	0.968688	0.979947	0.968698	0.979958
RYR1	3.554382	4.116364	4.39E-05	0.000351	4.18E-05	0.000336
RYR3	3.580214	5.473646	6.49E-08	1.33E-06	6.18E-08	1.27E-06
S100A1	-2.22794	-2.44037	0.014962	0.042747	0.014665	0.042104
S100A10	0.407398	0.805846	0.420652	0.558084	0.420808	0.558395
S100A11	-0.98854	-2.62898	0.008784	0.028121	0.009065	0.028711
S100A13	-2.93733	-4.69346	3.33E-06	4.00E-05	3.23E-06	3.90E-05

S100A2	3.085362	5.035044	6.33E-07	9.85E-06	6.13E-07	9.54E-06
S100A3	0.894888	1.837035	0.066701	0.140015	0.066889	0.140319
S100A8	2.272536	2.756189	0.006026	0.020811	0.005894	0.020414
S100A9	4.528122	4.515212	7.62E-06	7.98E-05	7.12E-06	7.61E-05
SAE1	-1.2961	-2.59447	0.009706	0.030352	0.009737	0.030449
SAFB2	-1.06631	-3.05667	0.002338	0.009673	0.00247	0.010113
SALL2	-1.61067	-2.17297	0.030174	0.074445	0.02981	0.07374
SARDH	3.497479	4.367453	1.48E-05	0.000139	1.41E-05	0.000133
SARS	-1.30927	-3.08168	0.002153	0.008995	0.002203	0.009181
SART3	1.082989	4.965554	8.95E-07	1.35E-05	1.47E-06	2.04E-05
SATB1	1.129114	2.480651	0.013388	0.039132	0.01352	0.039493
SAV1	0.807359	1.8864	0.059725	0.12918	0.060287	0.130156
SBF1	1.310444	2.710145	0.006918	0.023242	0.006961	0.023404
SBNO1	1.589357	3.73578	0.000205	0.001278	0.000212	0.00132
SC4MOL	-0.14774	-0.19839	0.842804	0.898057	0.842457	0.897704
SCAMP1	-0.30981	-0.74973	0.453711	0.589561	0.454925	0.590648
SCAMP3	0.408447	0.819547	0.412801	0.550559	0.413022	0.550228
SCAND1	-2.29326	-3.28542	0.001078	0.005041	0.001054	0.004953
SCAP	-1.82257	-6.85197	1.82E-11	1.24E-09	3.14E-11	1.99E-09
SCARA3	0.168559	0.277373	0.781589	0.85682	0.781349	0.856223
SCARB2	-0.3644	-0.38383	0.701237	0.799179	0.700361	0.798762
SCD	-0.89625	-0.8784	0.380082	0.518943	0.378528	0.517572
SCFD1	-1.11661	-2.7608	0.005943	0.020577	0.006092	0.020991
SCG2	-1.72507	-2.76903	0.005797	0.020241	0.005733	0.020064
SCGB1A1	2.785757	2.610765	0.009261	0.02925	0.009026	0.028626
SCGB2A1	-0.73355	-0.66014	0.509417	0.638469	0.507957	0.63664
SCGN	-6.81118	-6.92719	1.11E-11	8.30E-10	9.56E-12	7.36E-10
SCMH1	-2.36267	-4.14563	3.88E-05	0.000314	3.83E-05	0.000311
SCML1	0.356747	0.563293	0.573447	0.695693	0.572914	0.694911
SCN1B	0.001118	0.001583	0.998737	0.998881	0.998735	0.998878
SCN3A	0.212267	0.762687	0.445951	0.581245	0.451007	0.586533
SCNN1A	0.983847	1.348408	0.178038	0.29768	0.177109	0.296444
SCNN1B	0.488939	0.582927	0.560162	0.683835	0.559104	0.683074
SCNN1D	0.714365	2.421253	0.015764	0.044498	0.016767	0.046879
SCP2	-1.09031	-2.86143	0.004365	0.015951	0.004519	0.01644
SCPEP1	-1.56861	-3.39046	0.000744	0.003707	0.000755	0.003767
SCRG1	-0.81537	-0.84473	0.398599	0.536948	0.397125	0.535259
SCUBE3	-0.33974	-0.5256	0.59936	0.716975	0.598808	0.716583
SDAD1	-0.41176	-1.15924	0.246822	0.382481	0.249272	0.385514
SDC1	3.84853	9.143021	9.40E-19	4.02E-16	1.10E-18	5.18E-16
SDC3	-1.39169	-2.88592	0.004044	0.015008	0.004072	0.015072

SDC4	3.781698	4.650858	4.07E-06	4.73E-05	3.84E-06	4.51E-05
SDCBP	1.517921	1.906761	0.05703	0.124962	0.056409	0.124063
SDCBP2	2.665947	3.289022	0.001064	0.004998	0.001033	0.004874
SDCCAG1	1.654525	2.613918	0.009176	0.029063	0.009079	0.028735
SDCCAG8	3.306978	4.057388	5.62E-05	0.000427	5.37E-05	0.000412
SDHA	-0.2797	-0.51909	0.603888	0.72074	0.603805	0.720592
SDHB	0.648718	1.886018	0.059777	0.129232	0.061267	0.131667
SDHC	-0.02931	-0.04943	0.960593	0.976418	0.960555	0.976389
SDHD	-0.61993	-1.64034	0.101461	0.19322	0.102853	0.195553
SDPR	-0.57784	-1.39964	0.162138	0.276793	0.163271	0.278236
SDS	0.177869	0.312806	0.754537	0.835216	0.754381	0.835239
SDSL	0.94457	1.369067	0.171492	0.288863	0.170692	0.287958
SEC14L2	2.455628	3.197659	0.001459	0.006511	0.001421	0.006375
SEC23B	-0.98652	-1.7195	0.086041	0.170343	0.085811	0.169869
SEC23IP	2.498073	3.450435	0.000599	0.003118	0.000583	0.003039
SEC24A	0.075506	0.197214	0.843727	0.898802	0.844321	0.899435
SEC24B	0.074434	0.158904	0.873798	0.921232	0.873939	0.92138
SEC24D	1.330042	2.216783	0.027013	0.067967	0.026852	0.06767
SEC61A1	-0.09128	-0.2821	0.777963	0.853706	0.779501	0.854996
SEC61B	-0.25311	-0.71804	0.473012	0.607586	0.475369	0.609936
SEC61G	-0.82005	-1.52355	0.128151	0.231835	0.128063	0.231766
SEH1L	-0.31614	-0.5631	0.573577	0.695693	0.573361	0.695073
SEL1L	-1.58987	-1.96552	0.049816	0.111919	0.04923	0.110868
SELENBP1	-0.85351	-1.3938	0.163896	0.278695	0.163398	0.278241
SELK	2.227674	5.117013	4.19E-07	6.79E-06	4.40E-07	7.13E-06
SELL	4.140294	4.276677	2.21E-05	0.000197	2.08E-05	0.000187
SELP	1.14796	1.437939	0.150974	0.262622	0.149946	0.260997
SELPLG	-1.62428	-1.93836	0.053049	0.118055	0.052411	0.116935
SELS	1.679631	2.489109	0.013077	0.038318	0.012917	0.038016
SELT	-2.08146	-5.81629	9.80E-09	2.55E-07	1.15E-08	2.94E-07
SEMA3A	-3.48905	-3.72024	0.000218	0.001349	0.000208	0.001303
SEMA3F	3.418606	3.685852	0.000249	0.001516	0.000238	0.001457
SEMA4D	0.131425	0.335262	0.737545	0.826914	0.738423	0.827175
SEMA4F	0.45489	0.667254	0.504867	0.634227	0.504097	0.63338
SEMA7A	1.102142	1.399476	0.162189	0.276793	0.161155	0.275729
SEMG1	2.095821	3.316153	0.000968	0.004605	0.000952	0.004534
SENP6	0.563283	1.350762	0.177283	0.296628	0.178391	0.297952
SEPHS2	0.172742	0.321971	0.747587	0.832206	0.74754	0.832568
SEPP1	1.379805	2.362437	0.018475	0.050453	0.018373	0.050263
SEPW1	0.052088	0.134952	0.892695	0.93378	0.893092	0.933822
SEPX1	1.125176	2.284488	0.022692	0.059219	0.02277	0.059521

SERP1	-0.87632	-2.9081	0.003771	0.014225	0.004088	0.015104
SERPINA3	-4.35054	-4.41048	1.22E-05	0.000119	1.15E-05	0.000114
SERPINA4	0.351854	0.501432	0.616252	0.73141	0.615563	0.731009
SERPINA5	-2.08407	-2.4688	0.013835	0.040189	0.013578	0.039613
SERPINB1	-0.10354	-0.17113	0.864182	0.914121	0.864034	0.913968
SERPINB2	-0.73582	-0.91297	0.361624	0.501085	0.360398	0.500404
SERPINB5	-0.73467	-0.82483	0.409799	0.547798	0.408444	0.546274
SERPINB8	2.486226	2.378279	0.017707	0.049108	0.017332	0.048174
SERPINB9	-0.52923	-0.69635	0.486482	0.618632	0.485471	0.617681
SERPINE1	0.48308	0.663489	0.507273	0.636461	0.506368	0.635496
SERPING1	1.110714	2.276949	0.023142	0.060125	0.023234	0.060431
SERPINH1	-0.5489	-1.26863	0.205066	0.330072	0.206001	0.33126
SESN1	-0.53463	-0.69835	0.485227	0.617695	0.484201	0.616733
SET	0.002234	0.005476	0.995633	0.996481	0.995645	0.996493
SETBP1	-0.35701	-0.85744	0.391545	0.530335	0.392768	0.53137
SETDB1	-0.28973	-0.50922	0.610787	0.727127	0.61055	0.726845
SEZ6L	1.271006	1.23093	0.218833	0.348177	0.217319	0.346003
SEZ6L2	-1.24622	-2.81381	0.005057	0.018065	0.005134	0.018237
SF1	-2.20234	-4.54818	6.55E-06	7.12E-05	6.65E-06	7.18E-05
SF3A1	-1.52034	-3.58344	0.000367	0.002077	0.000378	0.002139
SF3A3	-0.33446	-1.26094	0.207822	0.333823	0.213605	0.340781
SF3B1	-0.26054	-0.61629	0.537938	0.664991	0.538903	0.665313
SF3B2	-0.3881	-1.17344	0.241088	0.375203	0.244214	0.378815
SF3B4	-0.37944	-1.18174	0.237779	0.371653	0.241212	0.375195
SFN	4.727392	7.565919	1.46E-13	1.64E-11	1.35E-13	1.51E-11
SFPQ	-0.99978	-3.82887	0.000142	0.000921	0.000173	0.001101
SFTPD	-1.8484	-2.04614	0.04118	0.095672	0.040587	0.094763
SFXN1	0.703994	0.676042	0.499276	0.630297	0.497855	0.629144
SFXN3	1.92596	4.431018	1.12E-05	0.000111	1.16E-05	0.000114
SGCA	-1.32923	-1.45732	0.145552	0.255544	0.144359	0.25402
SGCD	-1.16673	-3.08354	0.00214	0.008948	0.002229	0.00928
SGCE	-0.37655	-0.38118	0.703205	0.800257	0.702304	0.799799
SGK2	2.102629	2.734927	0.006424	0.021896	0.006299	0.021563
SGOL1	0.044599	0.045126	0.964022	0.978347	0.963907	0.978269
SGPL1	0.915888	2.018266	0.04401	0.100999	0.04432	0.101314
SGPP2	2.112467	2.508754	0.012379	0.036745	0.012143	0.036201
SGTB	1.010089	1.901688	0.057692	0.126001	0.057662	0.125951
SH2D1A	-1.41893	-3.94106	9.07E-05	0.000637	9.80E-05	0.00068
SH2D2A	2.92544	5.33088	1.39E-07	2.58E-06	1.37E-07	2.57E-06
SH2D3C	2.876017	4.750517	2.54E-06	3.17E-05	2.48E-06	3.12E-05
SH2D4A	2.406904	4.98391	8.17E-07	1.25E-05	8.31E-07	1.27E-05

SH3BGR	2.355377	2.361159	0.018538	0.050567	0.018163	0.049923
SH3BP5	1.560259	2.336012	0.01982	0.053414	0.019611	0.053032
SH3GLB1	-2.32862	-2.99294	0.002877	0.011401	0.00281	0.011201
SHANK2	2.059114	3.016341	0.002667	0.010751	0.002619	0.010567
SHB	1.195911	1.701104	0.089443	0.175746	0.088814	0.17451
SHC1	0.409965	0.862789	0.388599	0.527668	0.389056	0.528028
SHFM1	0.323747	1.016026	0.310028	0.451963	0.313651	0.455972
SHMT1	1.10071	1.346379	0.178691	0.298347	0.177559	0.296985
SHOX2	-0.87027	-2.09822	0.036305	0.086571	0.036795	0.087608
SIAH2	0.288189	0.437711	0.661754	0.769291	0.661241	0.769075
SIGLEC5	0.618543	0.989595	0.322772	0.464387	0.322139	0.464006
SILV	-1.188	-1.28657	0.198741	0.322097	0.197394	0.320246
SIM2	0.438502	0.560685	0.575222	0.696417	0.574291	0.695557
SIP1	0.525333	0.719733	0.47197	0.606601	0.471022	0.605691
SIPA1	-1.06761	-3.07401	0.002208	0.009169	0.002337	0.009658
SIRPB1	-2.22656	-2.38564	0.01736	0.048278	0.017022	0.047395
SIRT2	1.143469	2.055184	0.040295	0.094222	0.040194	0.094179
SIRT5	0.363931	0.668174	0.50428	0.633891	0.504143	0.63338
SIRT6	2.34926	2.312539	0.021087	0.05612	0.020671	0.055357
SIX5	0.225483	0.35514	0.72261	0.814843	0.722236	0.814567
SKI	0.60624	1.10657	0.268925	0.40733	0.268747	0.407061
SKIL	2.84604	5.861538	7.58E-09	2.04E-07	7.74E-09	2.12E-07
SKP2	-0.02689	-0.04049	0.967716	0.979947	0.967662	0.979949
SLA	1.289902	3.855792	0.000128	0.000841	0.000141	0.000917
SLAMF1	1.427457	2.25897	0.024245	0.062507	0.024048	0.062
SLBP	1.397397	3.286829	0.001073	0.005021	0.001101	0.005132
SLC11A1	3.935949	6.168848	1.27E-09	4.32E-08	1.20E-09	4.14E-08
SLC11A2	-0.65447	-1.43787	0.150994	0.262622	0.151582	0.263183
SLC12A2	-0.60167	-1.01828	0.308954	0.450818	0.3085	0.450435
SLC12A9	1.008298	2.738352	0.006359	0.021751	0.006597	0.022405
SLC15A1	-0.22979	-0.37695	0.706346	0.802666	0.706024	0.802457
SLC15A2	0.518015	0.550605	0.58211	0.702142	0.580957	0.700993
SLC16A1	-1.90131	-3.556	0.000406	0.002252	0.000405	0.002267
SLC16A2	1.124203	1.199763	0.230706	0.363744	0.229288	0.362115
SLC16A3	-0.33631	-0.80576	0.4207	0.558084	0.421884	0.559023
SLC16A4	1.284066	2.689282	0.00736	0.0245	0.007412	0.024673
SLC16A5	-1.54239	-2.53594	0.011468	0.034529	0.011373	0.034354
SLC16A7	0.056507	0.112809	0.91022	0.945507	0.910258	0.945461
SLC16A9	-1.06679	-1.245	0.213621	0.340854	0.212353	0.339015
SLC17A4	4.24906	3.884221	0.000114	0.000768	0.000108	0.000731
SLC18A2	-0.20775	-0.26005	0.794916	0.865641	0.794411	0.86509

SLC19A2	-0.49612	-1.25958	0.208311	0.334265	0.209857	0.336287
SLC1A3	1.948309	3.353598	0.000848	0.004147	0.00084	0.004114
SLC1A4	0.107594	0.121811	0.903089	0.941553	0.902812	0.941473
SLC1A5	-0.64948	-1.38149	0.167643	0.283936	0.168099	0.284503
SLC20A1	-0.90609	-1.1145	0.265514	0.404249	0.264278	0.402498
SLC22A11	-2.45162	-2.6331	0.00868	0.027903	0.008479	0.027433
SLC22A17	2.097591	2.714237	0.006834	0.023043	0.006702	0.022661
SLC22A18	-0.09916	-0.12814	0.898081	0.937996	0.897838	0.937742
SLC23A1	2.332689	5.617497	2.97E-08	6.62E-07	3.21E-08	7.22E-07
SLC24A1	-1.07011	-1.21497	0.224856	0.355953	0.223531	0.354333
SLC25A1	0.285149	0.27341	0.784632	0.858232	0.783936	0.858019
SLC25A11	0.807511	2.344266	0.019391	0.052484	0.020097	0.054036
SLC25A12	-2.97597	-3.11221	0.001946	0.008236	0.001883	0.008032
SLC25A13	1.229609	3.132692	0.001817	0.007791	0.001883	0.008032
SLC25A14	1.896991	4.504284	8.01E-06	8.32E-05	8.41E-06	8.66E-05
SLC25A20	-0.90719	-1.41902	0.156415	0.269187	0.155815	0.268548
SLC25A5	-2.81763	-4.60007	5.16E-06	5.76E-05	5.02E-06	5.63E-05
SLC26A2	0.72486	2.158107	0.031317	0.076942	0.032391	0.079208
SLC26A3	0.40233	0.394941	0.693027	0.79415	0.692077	0.79355
SLC29A2	0.952556	1.367077	0.172115	0.289735	0.171292	0.288763
SLC2A3	0.846198	1.775266	0.076363	0.155604	0.076633	0.156055
SLC2A4RG	3.001935	5.793479	1.12E-08	2.82E-07	1.11E-08	2.86E-07
SLC2A5	-1.16511	-1.24957	0.211947	0.338482	0.210564	0.33673
SLC2A8	0.143356	0.382327	0.702355	0.799677	0.703546	0.800064
SLC30A3	-0.34337	-0.67474	0.500101	0.630891	0.500218	0.630471
SLC30A4	2.073968	4.810074	1.91E-06	2.50E-05	2.00E-06	2.66E-05
SLC30A5	-0.48374	-1.05637	0.291227	0.433703	0.291889	0.434414
SLC33A1	-0.06666	-0.12185	0.903062	0.941553	0.903028	0.941489
SLC35A1	-1.23567	-1.74343	0.081773	0.163824	0.081161	0.162807
SLC35A3	3.016545	4.227234	2.74E-05	0.000234	2.63E-05	0.000227
SLC35B1	2.704348	3.03498	0.00251	0.010251	0.002438	0.010025
SLC35B3	1.215111	1.8413	0.066073	0.138888	0.06563	0.138386
SLC35B4	-0.60449	-1.42341	0.155138	0.267774	0.156091	0.26863
SLC35C2	-2.56007	-4.43205	1.11E-05	0.000111	1.09E-05	0.000109
SLC35D2	-0.14901	-0.33345	0.73891	0.827269	0.739329	0.827175
SLC35E1	-0.93317	-2.18142	0.029541	0.073321	0.0299	0.073884
SLC35F5	-1.11977	-1.79951	0.072443	0.149137	0.072075	0.148772
SLC37A1	-0.60305	-1.07061	0.284776	0.425715	0.284492	0.425426
SLC37A4	2.201799	5.368682	1.14E-07	2.19E-06	1.23E-07	2.36E-06
SLC38A2	-1.01649	-3.06078	0.002307	0.009552	0.002462	0.010098
SLC39A1	-0.02773	-0.06815	0.945692	0.968229	0.94585	0.968393

SLC39A11	0.099175	0.201221	0.840594	0.8975	0.840687	0.897394
SLC39A6	-1.48081	-2.36317	0.018438	0.050451	0.018282	0.050103
SLC39A8	-0.78804	-1.33563	0.182179	0.302468	0.181772	0.30199
SLC3A1	-0.32451	-0.39224	0.695018	0.794789	0.69425	0.794298
SLC3A2	-0.95989	-1.73535	0.083195	0.166036	0.083055	0.165687
SLC40A1	4.14261	5.216952	2.51E-07	4.36E-06	2.34E-07	4.11E-06
SLC43A1	-0.64497	-1.66338	0.09676	0.185841	0.097977	0.187956
SLC4A2	0.062162	0.069553	0.944573	0.967631	0.944412	0.967466
SLC4A3	2.421071	4.019148	6.59E-05	0.000485	6.46E-05	0.000483
SLC4A4	2.625965	3.703874	0.000232	0.001425	0.000225	0.001395
SLC4A7	0.400378	1.085461	0.278155	0.417944	0.280313	0.42038
SLC5A1	2.202082	2.490857	0.013014	0.038156	0.012755	0.037584
SLC5A6	-0.73406	-1.11741	0.264267	0.402742	0.263501	0.401791
SLC6A1	1.731425	4.533038	7.02E-06	7.52E-05	7.60E-06	8.01E-05
SLC6A2	-1.59527	-2.95107	0.003291	0.012751	0.003282	0.012737
SLC6A5	-1.53549	-2.2293	0.026165	0.066294	0.025886	0.065738
SLC6A6	0.491247	0.780755	0.435256	0.571106	0.434636	0.570176
SLC6A8	0.33571	0.294222	0.76869	0.847091	0.767904	0.846724
SLC7A1	1.303231	2.466364	0.013929	0.04041	0.01392	0.040387
SLC7A5	-0.39947	-0.72563	0.468348	0.604237	0.468166	0.603837
SLC7A8	0.480164	0.763071	0.445722	0.581108	0.445107	0.580668
SLC7A9	-0.24314	-0.28243	0.777714	0.853633	0.777111	0.852971
SLC9A3R1	-1.20159	-2.35527	0.018831	0.051249	0.018859	0.051324
SLC9A6	0.294382	0.567973	0.570266	0.692571	0.570307	0.692442
SLC9A8	-0.27601	-0.29118	0.771016	0.848063	0.770331	0.847706
SLCO2A1	0.692494	1.083	0.279245	0.419179	0.278548	0.418134
SLCO2B1	0.029007	0.07675	0.938848	0.963946	0.939096	0.964122
SLCO3A1	-1.04942	-1.27436	0.20303	0.327918	0.201841	0.326447
SLCO4A1	-1.69474	-1.72209	0.08557	0.169554	0.08458	0.167945
SLIT2	0.597747	0.890887	0.373348	0.512631	0.372525	0.5118
SLIT3	1.434986	1.828991	0.067899	0.14192	0.067226	0.140865
SLMAP	0.804016	1.118238	0.263914	0.402465	0.262925	0.401124
SLPI	-2.34919	-2.62506	0.008885	0.028378	0.008688	0.027873
SLU7	1.075518	1.462446	0.144144	0.253642	0.143272	0.252485
SMAD1	1.60209	2.342813	0.019466	0.05261	0.019244	0.0521
SMAD2	0.491078	0.610817	0.541553	0.667811	0.540524	0.666613
SMAD3	0.18326	0.444064	0.657157	0.765652	0.658026	0.766284
SMAD4	0.091484	0.138557	0.889847	0.931881	0.889668	0.931693
SMAD5	1.19081	1.745175	0.081468	0.1634	0.080916	0.162476
SMAD6	0.761582	1.123583	0.261641	0.399907	0.260794	0.398825
SMAD7	1.388423	2.583574	0.010014	0.031047	0.009997	0.031076

SMARCA1	0.316434	0.371489	0.710405	0.805222	0.709644	0.804872
SMARCA2	0.165964	0.498843	0.618073	0.733016	0.620358	0.734062
SMARCA4	-0.31069	-0.5892	0.55595	0.680942	0.555932	0.680792
SMARCA5	-0.67578	-2.33172	0.020046	0.053839	0.021302	0.05666
SMARCAD1	-0.62399	-1.21174	0.226089	0.357784	0.226164	0.358144
SMARCAL1	-1.50227	-1.70715	0.088313	0.173815	0.087406	0.172174
SMARCB1	-1.21004	-2.43312	0.015261	0.043326	0.01531	0.04353
SMARCC1	1.24774	1.674794	0.094497	0.182557	0.093762	0.181655
SMARCD1	-2.75763	-5.5247	4.93E-08	1.05E-06	4.98E-08	1.06E-06
SMARCD2	-2.62733	-3.26265	0.001167	0.005408	0.001133	0.005267
SMARCD3	0.395677	0.58762	0.55701	0.681756	0.556323	0.681094
SMG1	-0.60507	-0.8538	0.393558	0.532448	0.392611	0.53132
SMNDC1	2.894377	5.045897	6.00E-07	9.36E-06	5.87E-07	9.23E-06
SMO	0.827382	1.982997	0.047825	0.108184	0.048392	0.109295
SMOC2	2.535827	3.508938	0.000484	0.002598	0.00047	0.002539
SMPD1	4.822015	6.171313	1.25E-09	4.29E-08	1.14E-09	3.96E-08
SMTN	-1.4627	-3.62425	0.000314	0.001831	0.000328	0.001892
SMU1	0.451032	1.501895	0.133652	0.239758	0.137151	0.244355
SMUG1	-0.38459	-0.87872	0.379905	0.518906	0.38082	0.519401
SMYD2	0.659805	1.184054	0.236862	0.37096	0.236624	0.370588
SMYD5	1.089486	1.871228	0.061802	0.132573	0.061582	0.132174
SNAP25	0.154552	0.252262	0.800925	0.869618	0.800695	0.869306
SNAP29	-1.01747	-1.42784	0.15386	0.266056	0.153025	0.2651
SNAPC4	0.331893	1.03569	0.300766	0.442252	0.304321	0.445996
SNCA	-0.57066	-0.77153	0.440697	0.576475	0.439691	0.575319
SNCAIP	-1.1016	-1.25242	0.210906	0.337693	0.209604	0.336088
SNCG	0.926074	1.054172	0.29223	0.435059	0.290854	0.433285
SND1	0.389457	0.596378	0.551148	0.67652	0.550523	0.675753
SNN	0.049337	0.137514	0.89067	0.932328	0.891212	0.932895
SNRPA	-0.78862	-1.04975	0.294255	0.436494	0.293159	0.435238
SNRPA1	-0.72243	-1.55164	0.121278	0.222573	0.121717	0.223116
SNRPB	-0.98073	-2.29335	0.022174	0.058287	0.022468	0.058921
SNRPB2	0.830511	1.324206	0.18594	0.30707	0.185354	0.305892
SNRPC	-1.34862	-4.6436	4.21E-06	4.88E-05	5.20E-06	5.82E-05
SNRPD2	-1.15101	-4.83398	1.70E-06	2.29E-05	2.50E-06	3.14E-05
SNRPD3	-1.89368	-2.80623	0.005176	0.018414	0.005097	0.018135
SNRPE	-0.61748	-1.40257	0.161263	0.275613	0.162035	0.276832
SNRPF	-2.31421	-3.31067	0.000987	0.00468	0.000964	0.004583
SNRPG	-0.11813	-0.32141	0.74801	0.832303	0.749118	0.833141
SNRPN	-1.68895	-2.55429	0.010887	0.033119	0.010756	0.032827
SNTA1	0.782658	0.923876	0.355923	0.496391	0.354609	0.494706

SNTB1	1.055345	1.378295	0.168628	0.285192	0.167627	0.284011
SNTB2	1.154482	2.479252	0.01344	0.039211	0.013548	0.039551
SNX1	-1.59512	-2.05121	0.040681	0.094889	0.040197	0.094179
SNX15	-0.50014	-0.78948	0.430143	0.566771	0.429501	0.566084
SOCS1	2.649302	3.145544	0.00174	0.007524	0.00169	0.007355
SOCS2	-0.10695	-0.2298	0.818326	0.882244	0.818539	0.882192
SOCS3	2.840914	7.197419	1.85E-12	1.74E-10	2.16E-12	2.07E-10
SOCS6	0.838836	2.919148	0.003642	0.013883	0.003997	0.014897
SOD1	-1.38803	-4.17282	3.46E-05	0.000285	3.87E-05	0.000314
SOD3	-0.762	-1.32486	0.185723	0.307019	0.185394	0.305892
SORCS2	1.337008	2.316908	0.020846	0.055684	0.020746	0.055464
SORL1	1.219419	2.51331	0.012222	0.03638	0.012285	0.036496
SORT1	2.496429	3.249803	0.00122	0.005615	0.001187	0.005481
SOS1	1.25148	2.640662	0.008491	0.027445	0.008554	0.027575
SOX10	-6.31002	-9.90969	1.55E-21	9.10E-19	1.33E-21	7.83E-19
SOX13	0.578953	0.802945	0.422326	0.559451	0.421358	0.558863
SOX30	-0.37152	-0.35548	0.722355	0.814752	0.721472	0.814278
SOX5	0.031798	0.058065	0.953716	0.972757	0.953699	0.97274
SOX8	-2.90621	-3.50371	0.000493	0.002634	0.000476	0.002565
SOX9	1.500083	1.396719	0.163016	0.277902	0.161598	0.276186
SP1	-0.99068	-1.85926	0.063481	0.13522	0.063442	0.135104
SP100	1.123318	1.462195	0.144213	0.253668	0.143265	0.252485
SP110	2.111778	4.705648	3.15E-06	3.82E-05	3.26E-06	3.92E-05
SP140	0.576308	0.704501	0.481395	0.614521	0.480251	0.613552
SP2	0.365429	0.8137	0.416141	0.553911	0.416888	0.554204
SP3	0.677278	1.31369	0.189454	0.310689	0.189521	0.310906
SPA17	2.611331	5.304688	1.59E-07	2.91E-06	1.61E-07	2.95E-06
SPAG1	2.369403	2.840953	0.004651	0.016854	0.004542	0.016508
SPAG5	0.356906	0.664001	0.506945	0.63622	0.506856	0.635768
SPAG7	-0.20124	-0.32729	0.743565	0.830898	0.743267	0.830565
SPAG9	1.693688	3.490701	0.000517	0.002738	0.000522	0.002753
SPARC	2.828235	3.978824	7.78E-05	0.000561	7.52E-05	0.000544
SPARCL1	2.097531	3.034743	0.002512	0.010251	0.002465	0.0101
SPATA2	-0.20257	-0.25054	0.802253	0.869717	0.801756	0.869306
SPDEF	-0.92469	-0.93922	0.347996	0.488525	0.346466	0.487542
SPG20	-0.51187	-1.04523	0.296338	0.438356	0.29665	0.438485
SPG7	1.063722	1.850961	0.064668	0.137011	0.064468	0.136549
SPHK1	-0.91346	-1.37392	0.169981	0.286862	0.169267	0.28617
SPIB	0.768341	0.787406	0.431356	0.567574	0.429904	0.566456
SPINK1	3.850461	3.392221	0.000739	0.003699	0.000708	0.003586
SPINT1	2.488586	4.182184	3.32E-05	0.000276	3.26E-05	0.000271

SPINT2	4.14363	5.948295	4.61E-09	1.37E-07	4.30E-09	1.32E-07
SPIRE2	1.235473	1.713511	0.087137	0.171835	0.086478	0.170776
SPON1	4.323228	5.617767	2.97E-08	6.62E-07	2.75E-08	6.30E-07
SPOP	0.399961	0.899861	0.368557	0.507386	0.369384	0.508228
SPRED2	1.016202	1.698574	0.08992	0.176167	0.089589	0.175592
SPRR1B	0.69783	1.244727	0.21372	0.340854	0.213466	0.340675
SPRY1	-2.51433	-2.68446	0.007466	0.024787	0.007286	0.024303
SPRY2	-0.68522	-1.39	0.165047	0.280448	0.16529	0.280659
SPTA1	1.538277	3.629194	0.000309	0.0018	0.000319	0.001857
SPTB	2.186422	2.658171	0.008067	0.026365	0.007901	0.025915
SPTBN1	-0.73953	-1.926	0.054577	0.120769	0.055498	0.12269
SPTBN5	2.228091	2.819235	0.004973	0.017857	0.004866	0.017512
SPTLC1	0.047683	0.117928	0.906164	0.943294	0.906445	0.943609
SQSTM1	-0.79285	-2.00188	0.045749	0.104244	0.046466	0.105503
SRC	-1.46191	-2.05137	0.040666	0.094889	0.040258	0.09423
SRCAP	-0.32962	-0.6722	0.501714	0.63151	0.501986	0.631852
SRD5A1	4.167778	4.17252	3.46E-05	0.000285	3.26E-05	0.000271
SREBF1	-0.68088	-1.18132	0.237945	0.37179	0.237588	0.371725
SREBF2	-1.29615	-4.85635	1.53E-06	2.09E-05	2.04E-06	2.68E-05
SRF	1.587932	3.24453	0.001242	0.005669	0.001251	0.005702
SRI	-2.02204	-3.82099	0.000147	0.000947	0.000147	0.000946
SRM	0.931568	1.588432	0.112717	0.209977	0.112397	0.209546
SRP14	0.704326	2.764293	0.00588	0.020473	0.006605	0.022415
SRP54	1.416096	2.458942	0.014217	0.041019	0.014142	0.040904
SRP68	-0.57391	-0.7959	0.426403	0.563582	0.425439	0.562623
SRP72	-0.70642	-1.42226	0.155471	0.268251	0.155679	0.26851
SRPK1	0.255586	0.388964	0.697441	0.796979	0.696979	0.796291
SRPR	0.629402	1.09943	0.272023	0.410964	0.271681	0.410448
SRPX	-2.40114	-3.0065	0.002754	0.011005	0.002686	0.01079
SRPX2	1.979705	3.593481	0.000353	0.002017	0.000351	0.002012
SRRM1	-2.5758	-5.64827	2.51E-08	5.86E-07	2.61E-08	6.08E-07
SS18	0.417829	0.85863	0.390889	0.529904	0.391226	0.529903
SSB	-0.60096	-1.67952	0.093573	0.181433	0.09523	0.183811
SSBP2	-1.74249	-3.16631	0.001622	0.007107	0.001615	0.007054
SSBP3	1.266485	3.350451	0.000858	0.004177	0.0009	0.004345
SSFA2	0.859055	1.008363	0.313688	0.456101	0.312357	0.454795
SSNA1	3.319948	4.625095	4.59E-06	5.25E-05	4.38E-06	5.01E-05
SSPN	1.686406	3.125399	0.001862	0.007962	0.001856	0.007939
SSR1	-1.59071	-3.98159	7.69E-05	0.000557	8.09E-05	0.000578
SSR2	-1.25594	-4.48513	8.74E-06	8.93E-05	1.09E-05	0.000109
SSR3	-1.53313	-4.04698	5.87E-05	0.000444	6.27E-05	0.000471

SSR4	0.917288	2.027587	0.043045	0.099173	0.043359	0.099944
SSSCA1	0.94837	0.995966	0.319669	0.461581	0.318176	0.460131
SST	-1.64297	-1.56099	0.119054	0.219298	0.117827	0.217513
ST13	-1.1184	-2.37283	0.017968	0.049665	0.018086	0.049739
ST5	0.760784	1.524906	0.127811	0.231399	0.127985	0.231714
ST7	2.30147	3.671286	0.000263	0.00159	0.000258	0.001558
ST7L	1.900579	3.417931	0.000674	0.003435	0.000669	0.00342
STAG2	1.043766	2.218642	0.026886	0.067755	0.027047	0.068087
STAM	0.575301	0.607143	0.543987	0.669891	0.542748	0.668562
STAM2	-0.98086	-1.61736	0.106328	0.2007	0.105937	0.200023
STAMPB	3.875509	5.32151	1.46E-07	2.70E-06	1.37E-07	2.57E-06
STAP2	2.115221	3.632775	0.000304	0.001778	0.000301	0.001778
STARD3	-1.07411	-1.90338	0.057471	0.125693	0.057319	0.125594
STARD7	-0.1778	-0.32191	0.747636	0.832206	0.74753	0.832568
STAT1	1.588642	3.992042	7.37E-05	0.000538	7.76E-05	0.000558
STAT2	-1.18312	-3.83268	0.00014	0.00091	0.000159	0.001013
STAT3	-1.64843	-2.40694	0.016389	0.045888	0.016192	0.045433
STAT4	3.028706	3.6187	0.000321	0.001866	0.000309	0.001815
STAT5B	-1.73289	-2.36271	0.018461	0.050453	0.018208	0.049986
STAU2	-0.0691	-0.08105	0.935425	0.962456	0.935248	0.962273
STIM1	-0.21266	-0.39933	0.689792	0.79151	0.689753	0.791272
STIP1	4.663588	6.840329	1.96E-11	1.31E-09	1.79E-11	1.24E-09
STK10	0.784313	0.910389	0.362984	0.502216	0.361646	0.501002
STK16	0.81274	1.948484	0.051824	0.116043	0.052422	0.116935
STK17A	-1.24552	-2.03133	0.042663	0.098388	0.042415	0.097914
STK17B	-0.45615	-1.02461	0.30596	0.447701	0.306786	0.448351
STK19	-1.16023	-1.94073	0.052761	0.11758	0.052518	0.117038
STK24	-0.13734	-0.29471	0.768314	0.846981	0.768579	0.847032
STK25	-1.38012	-3.50812	0.000485	0.0026	0.000507	0.002695
STK3	0.169898	0.315453	0.752528	0.834314	0.752474	0.834274
STK32B	-2.19926	-4.02377	6.46E-05	0.000479	6.42E-05	0.00048
STK33	2.663783	5.237581	2.26E-07	3.94E-06	2.27E-07	3.99E-06
STK35	-0.79491	-1.52264	0.128378	0.232069	0.128392	0.232271
STK38	-0.51477	-0.72572	0.468296	0.604237	0.467404	0.603561
STK38L	-1.35814	-2.12478	0.034015	0.082237	0.033755	0.081736
STK39	-0.7023	-0.95532	0.339804	0.481193	0.338754	0.479996
STK4	-0.09844	-0.2013	0.840535	0.8975	0.84064	0.897394
STMN2	0.891342	1.775344	0.07635	0.155604	0.076465	0.155781
STOM	-0.9371	-2.29781	0.021917	0.057805	0.022296	0.058609
STOML1	1.597033	1.995026	0.046493	0.105514	0.045941	0.104563
STRA13	0.61087	1.591971	0.11192	0.208822	0.113288	0.21079

STRAP	-0.56507	-1.37067	0.170992	0.288155	0.172156	0.290116
STRN3	1.536904	2.796056	0.005339	0.01884	0.00532	0.018786
STS	-0.98316	-1.04889	0.294653	0.436591	0.293183	0.435238
STUB1	0.256777	0.44079	0.659524	0.767458	0.659257	0.767161
STX11	0.873606	1.47488	0.140771	0.249105	0.14039	0.248447
STX16	-1.32274	-2.64728	0.008328	0.026995	0.008356	0.027159
STX1A	-2.67772	-2.64952	0.008274	0.026856	0.008067	0.026347
STX6	1.195114	1.534425	0.125454	0.22801	0.12454	0.226611
STX7	0.063651	0.110572	0.911993	0.946744	0.911927	0.946568
STX8	1.232895	2.179911	0.029653	0.07343	0.02955	0.073214
STXBP1	-4.46792	-5.94411	4.73E-09	1.38E-07	4.35E-09	1.32E-07
STXBP2	0.036471	0.079895	0.936347	0.962983	0.936437	0.963075
STXBP3	0.838659	1.717235	0.086454	0.170944	0.086664	0.171067
SUCLA2	1.422865	2.366005	0.018299	0.050208	0.018175	0.049924
SUCLG1	2.244674	6.862969	1.69E-11	1.19E-09	2.28E-11	1.51E-09
SUGT1	2.685943	3.900836	0.000107	0.000726	0.000104	0.000707
SULT1A1	1.209712	1.716469	0.086594	0.171149	0.085972	0.169966
SULT1E1	0.748674	1.004418	0.315583	0.457545	0.314501	0.456362
SULT2B1	0.022187	0.034541	0.972457	0.982024	0.972416	0.982028
SUMO1	-0.27694	-0.8435	0.399284	0.537564	0.402489	0.539869
SUMO2	1.325523	5.164222	3.29E-07	5.51E-06	4.71E-07	7.56E-06
SUMO3	-0.13061	-0.13425	0.89325	0.93378	0.892916	0.933822
SUOX	-0.76475	-1.00107	0.317197	0.459565	0.316064	0.458064
SUPT16H	-3.02152	-4.05759	5.62E-05	0.000427	5.40E-05	0.000414
SUPT3H	0.271916	0.526319	0.598862	0.716709	0.598911	0.716583
SUPT4H1	-2.06305	-2.05809	0.040014	0.093752	0.039377	0.092674
SUPT6H	0.864649	1.166104	0.244037	0.378665	0.242994	0.377295
SUPV3L1	0.9053	0.991245	0.321967	0.464043	0.32053	0.462867
SURF1	-1.01819	-1.44047	0.150258	0.261657	0.149447	0.260341
SURF2	3.004252	7.121318	3.08E-12	2.73E-10	3.42E-12	3.09E-10
SUV420H1	1.173206	2.27985	0.022968	0.059837	0.022989	0.059949
SVIL	-1.47351	-2.27254	0.023408	0.06075	0.023195	0.060364
SWAP70	-0.77122	-0.94943	0.342786	0.485123	0.34154	0.483651
SYAP1	0.195138	0.584612	0.559029	0.682877	0.561557	0.68536
SYCP2	-0.05727	-0.09285	0.926052	0.955709	0.925962	0.955648
SYK	0.052764	0.061963	0.950613	0.9708	0.950477	0.970718
SYN1	1.073025	1.319628	0.187464	0.308718	0.186324	0.306948
SYN2	2.802464	5.976237	3.92E-09	1.21E-07	4.06E-09	1.26E-07
SYN3	-1.66385	-2.72709	0.006577	0.022335	0.006514	0.022185
SYNE1	0.913035	1.940274	0.052816	0.117647	0.053066	0.118037
SYNE2	0.590161	1.036879	0.300212	0.441764	0.299888	0.44198

SYNGR1	-2.24964	-3.17805	0.001559	0.006862	0.001525	0.006725
SYNGR3	-0.46483	-0.48055	0.631011	0.743482	0.629941	0.742408
SYNGR4	2.342716	3.447975	0.000604	0.003136	0.000591	0.003072
SYNJ1	0.290524	0.414574	0.678602	0.782236	0.678011	0.781638
SYNJ2BP	2.24606	8.572325	8.67E-17	2.00E-14	2.01E-16	3.96E-14
SYNPO	-0.78275	-2.18055	0.029606	0.073351	0.03042	0.07493
SYP	1.80471	2.067316	0.039134	0.092334	0.038581	0.091166
SYT1	-0.86368	-1.03489	0.30114	0.442437	0.299844	0.44198
SYT13	3.370478	3.245374	0.001238	0.005668	0.001193	0.005501
SYT7	2.328173	4.277356	2.20E-05	0.000197	2.19E-05	0.000195
SYTL1	-0.46118	-0.64677	0.518029	0.647746	0.517179	0.646931
SYTL2	-0.72727	-1.3031	0.193042	0.314706	0.19281	0.314673
TACC1	-0.17789	-0.41672	0.677033	0.781064	0.677717	0.781638
TACR2	2.084747	2.45899	0.014215	0.041019	0.013951	0.040451
TAF1	0.246107	0.646385	0.518278	0.647746	0.519928	0.648703
TAF10	-0.39253	-1.04894	0.294631	0.436591	0.296677	0.438485
TAF11	-2.24089	-4.1607	3.64E-05	0.000297	3.62E-05	0.000298
TAF15	0.309482	1.02366	0.30641	0.448119	0.310663	0.452889
TAF1A	0.811861	1.907638	0.056917	0.12481	0.057481	0.125773
TAF1B	0.509418	1.318553	0.187823	0.309201	0.189459	0.310906
TAF1C	-1.4552	-2.90618	0.003794	0.014277	0.003808	0.014353
TAF2	0.306807	0.683989	0.494247	0.625969	0.494946	0.62702
TAF5	-0.90352	-2.22029	0.026773	0.067508	0.027215	0.068437
TAF5L	0.00769	0.014082	0.988769	0.992561	0.988765	0.992529
TAF6L	-0.80053	-2.96849	0.003112	0.01214	0.003488	0.013428
TAF7	0.527141	1.028947	0.30392	0.445595	0.304022	0.445697
TAGLN	-0.4698	-0.94379	0.345657	0.487112	0.345891	0.487348
TAGLN2	-1.48035	-4.03145	6.26E-05	0.000467	6.75E-05	0.0005
TALDO1	0.17649	0.222862	0.823719	0.885112	0.823288	0.884649
TANK	0.614625	1.604752	0.109076	0.204736	0.110439	0.206551
TAOK1	0.432655	0.430471	0.667009	0.773677	0.665998	0.772696
TAOK2	1.728057	3.647432	0.000288	0.001705	0.000292	0.001738
TAP1	2.534739	4.654009	4.01E-06	4.68E-05	3.98E-06	4.62E-05
TAP2	1.109376	1.841283	0.066075	0.138888	0.065783	0.138609
TARBP1	0.114093	0.143084	0.886272	0.929379	0.885988	0.929082
TARBP2	-0.0827	-0.16386	0.869894	0.918145	0.86994	0.918194
TARDBP	-0.96134	-3.66816	0.000266	0.001607	0.000319	0.001857
TARP	-1.29769	-3.214	0.001379	0.006222	0.001426	0.006387
TARS	1.575337	3.707345	0.000229	0.001408	0.000236	0.001451
TAX1BP1	1.399621	4.11431	4.43E-05	0.000352	4.91E-05	0.000381
TAX1BP3	-0.11986	-0.22967	0.818423	0.882244	0.818431	0.882192

TAZ	-0.05954	-0.06739	0.946294	0.96855	0.94614	0.968393
TBC1D16	1.601314	4.294586	2.04E-05	0.000183	2.21E-05	0.000197
TBC1D22A	1.219194	2.192353	0.028739	0.071656	0.028659	0.071456
TBC1D5	0.089361	0.199598	0.841863	0.897835	0.84212	0.897704
TBCA	-1.30116	-4.49845	8.23E-06	8.46E-05	1.01E-05	0.000102
TBCD	0.849355	1.327407	0.184881	0.305749	0.184242	0.304801
TBCE	1.078146	2.354596	0.018865	0.051312	0.019026	0.051661
TBL1X	2.315819	6.380999	3.53E-10	1.36E-08	4.23E-10	1.59E-08
TBP	1.39372	1.711412	0.087524	0.172431	0.086704	0.171067
TBPL1	-0.61869	-0.95652	0.339196	0.480486	0.338463	0.479728
TBRG4	-2.1081	-2.83261	0.004773	0.017264	0.004679	0.016943
TBX1	0.307832	0.57408	0.56613	0.688595	0.566056	0.688525
TBX19	0.858413	0.874005	0.382466	0.521041	0.380958	0.519438
TBX3	-2.20185	-4.19498	3.14E-05	0.000263	3.14E-05	0.000263
TBXA2R	-0.31642	-0.45541	0.648977	0.757896	0.648353	0.757271
TBXAS1	-0.47231	-0.50466	0.613981	0.729636	0.612903	0.728908
TCEA1	-1.23493	-2.49762	0.012771	0.037599	0.012818	0.037747
TCEA2	-0.09757	-0.21282	0.831541	0.891275	0.831767	0.891161
TCEA3	1.058716	1.547402	0.122295	0.224176	0.121613	0.223099
TCEAL1	0.562374	1.327478	0.184857	0.305749	0.185886	0.306441
TCEAL2	-2.28479	-2.6321	0.008705	0.027928	0.008517	0.027518
TCEAL3	-0.18096	-0.3266	0.744087	0.831283	0.743974	0.830883
TCEAL8	-1.10566	-2.36244	0.018474	0.050453	0.018604	0.050748
TCEB2	0.107318	0.187721	0.851159	0.905078	0.851056	0.904969
TCEB3	0.866752	1.038231	0.299582	0.44139	0.298286	0.440402
TCERG1	-0.05323	-0.15349	0.878065	0.924073	0.878748	0.924377
TCF12	-0.7863	-1.32448	0.185851	0.30703	0.185423	0.305892
TCF15	0.208169	0.272009	0.785709	0.858377	0.785218	0.858262
TCF20	0.608695	1.145587	0.252424	0.389492	0.252369	0.38905
TCF3	2.461415	3.606047	0.000337	0.001943	0.000328	0.001892
TCF4	1.307636	2.979984	0.003	0.011788	0.003054	0.012
TCF7	-1.7412	-3.92127	9.83E-05	0.000677	0.000101	0.000695
TCF7L2	0.611214	1.546583	0.122493	0.224451	0.123744	0.2256
TCIRG1	-1.35246	-3.52338	0.000459	0.002489	0.000482	0.002587
TCL6	-1.97459	-1.95786	0.050711	0.113713	0.049967	0.112312
TCN1	0.851006	0.713028	0.476106	0.610559	0.474528	0.609366
TCN2	0.730591	1.215162	0.224784	0.355953	0.224293	0.35542
TCOF1	2.082023	3.100258	0.002024	0.008511	0.001988	0.008403
TDP1	0.15874	0.249099	0.80337	0.87041	0.803095	0.870313
TDRD7	0.949315	2.538538	0.011384	0.034386	0.011734	0.035239
TDRD9	-1.68767	-2.60149	0.009512	0.029903	0.009401	0.029596

TEAD1	-2.63857	-5.36289	1.17E-07	2.23E-06	1.19E-07	2.30E-06
TEAD2	1.514888	2.287532	0.022513	0.05885	0.02229	0.058609
TEAD4	1.074286	2.28174	0.022855	0.059578	0.022997	0.059949
TEK	0.391481	0.546577	0.584873	0.704486	0.584102	0.703557
TERF2	-0.99659	-1.3232	0.186273	0.307295	0.185269	0.305892
TERF2IP	0.299542	0.706496	0.480155	0.613819	0.48118	0.614551
TESK1	3.53203	3.926463	9.62E-05	0.000666	9.18E-05	0.000642
TESK2	0.583994	1.117688	0.264149	0.402692	0.264164	0.402489
TEX264	0.884936	1.251259	0.211329	0.337724	0.210419	0.336614
TFAM	1.456399	1.828933	0.067908	0.14192	0.067218	0.140865
TFAP2A	0.776135	1.314273	0.189258	0.310584	0.188844	0.310337
TFB1M	-1.64811	-2.29936	0.021828	0.057604	0.021557	0.057144
TFCP2	-1.96682	-2.62289	0.008941	0.028509	0.008786	0.028074
TFCP2L1	1.843976	1.909988	0.056613	0.12457	0.055843	0.123338
TFE3	-0.28482	-0.62813	0.530162	0.658325	0.530775	0.658738
TFF1	1.726631	1.859039	0.063513	0.13522	0.062716	0.134045
TFF3	1.570536	1.693269	0.090925	0.177765	0.089953	0.176232
TFG	0.216233	0.517527	0.60498	0.721676	0.605895	0.722585
TFIP11	1.814917	3.029891	0.002552	0.010385	0.002525	0.010309
TFPI	3.133442	4.105149	4.60E-05	0.000362	4.42E-05	0.000352
TFPT	-2.32265	-3.89014	0.000111	0.000752	0.00011	0.000739
TFR2	1.344601	1.269097	0.2049	0.330031	0.203386	0.328461
TGDS	0.277678	0.520113	0.603177	0.72054	0.603122	0.720191
TGFA	1.567563	2.352188	0.018987	0.051612	0.018785	0.051182
TGFB1I1	-0.43376	-0.91426	0.360947	0.500723	0.361417	0.501002
TGFB2	-0.89771	-1.26742	0.2055	0.330544	0.204594	0.329537
TGFB1	0.261907	0.493212	0.622044	0.735683	0.622006	0.735488
TGFB1R1	-0.01116	-0.03047	0.975698	0.98344	0.975811	0.983553
TGFB1R2	0.873025	1.512868	0.130842	0.23526	0.130544	0.235169
TGFB1R3	0.021864	0.040026	0.968086	0.979947	0.968075	0.979949
TGFB1RAP1	-1.02707	-1.32826	0.184598	0.305615	0.183548	0.304081
TGIF2	0.21104	0.465613	0.641662	0.751898	0.642161	0.751968
TGM1	-0.4006	-0.66897	0.503772	0.633421	0.503332	0.633038
TGM2	0.530501	1.269177	0.204872	0.330031	0.206016	0.33126
TGM3	3.167661	3.826658	0.000144	0.000928	0.000138	0.000901
TH	1.547982	1.770351	0.077178	0.156863	0.076341	0.155595
THAP1	1.774828	2.750468	0.006131	0.021082	0.006054	0.020922
THAP11	-0.41482	-0.54762	0.584157	0.703985	0.58329	0.702845
THAP4	1.734894	2.14807	0.032109	0.078738	0.03167	0.077727
THAP8	1.101177	2.229041	0.026182	0.066301	0.026263	0.066507
THBD	0.90672	1.480637	0.13923	0.246843	0.138763	0.246494

THBS1	-0.56777	-0.93685	0.349215	0.489067	0.348679	0.48848
THBS2	1.797892	2.675388	0.007669	0.025347	0.007563	0.025086
THBS3	0.491712	1.515928	0.130066	0.234398	0.132791	0.238759
THBS4	0.756946	0.792466	0.428403	0.565112	0.426973	0.5641
THOC1	1.064732	1.74679	0.081187	0.163347	0.080836	0.162433
THOP1	-0.74591	-1.17293	0.24129	0.375394	0.240624	0.374605
THRAP3	0.548894	1.468678	0.142446	0.251259	0.144147	0.253837
THUMPD3	0.243991	0.35155	0.7253	0.817288	0.724799	0.81692
TIAM1	2.713384	2.963822	0.003159	0.012313	0.00307	0.012035
TIE1	1.47461	3.382667	0.000765	0.0038	0.000783	0.003881
TIFA	0.59673	0.886588	0.375657	0.514951	0.374827	0.513911
TIMELESS	-0.7747	-1.65932	0.097576	0.187264	0.09796	0.187956
TIMM10	0.949476	1.341697	0.180203	0.300191	0.179334	0.299209
TIMM17A	-0.62372	-1.85326	0.064338	0.136457	0.066016	0.138825
TIMM44	-0.4693	-0.4656	0.641673	0.751898	0.640595	0.751009
TIMM8B	1.167544	3.642093	0.000294	0.001731	0.000325	0.001883
TIMP1	-3.0321	-6.45024	2.31E-10	9.85E-09	2.39E-10	1.04E-08
TIMP2	-0.64214	-1.68287	0.092923	0.180619	0.0942	0.182348
TIMP3	-1.00025	-1.55358	0.120814	0.221893	0.12026	0.220818
TINAG	3.387211	5.757516	1.37E-08	3.41E-07	1.32E-08	3.32E-07
TJP1	1.255592	2.503582	0.01256	0.037173	0.012594	0.037252
TJP2	-0.82598	-1.16963	0.242616	0.376957	0.241681	0.375752
TK2	0.80261	1.064218	0.28766	0.429479	0.286558	0.428106
TKT	-0.23776	-0.44104	0.659344	0.767438	0.659269	0.767161
TKTL1	-1.58213	-1.65596	0.098255	0.188335	0.097216	0.186877
TLE1	3.041454	8.66299	4.29E-17	1.12E-14	6.06E-17	1.58E-14
TLE2	-1.25618	-2.01924	0.043908	0.100865	0.043636	0.100337
TLE3	0.265068	0.526269	0.598896	0.716709	0.599033	0.716583
TLE4	0.461982	0.945733	0.344667	0.486905	0.344991	0.4873
TLE6	0.427292	0.994331	0.320464	0.462444	0.321507	0.463712
TLK1	0.080144	0.2454	0.806231	0.872504	0.807543	0.873723
TLK2	-1.14442	-2.65196	0.008215	0.02672	0.008348	0.027154
TLN1	-0.43489	-1.26315	0.207028	0.332774	0.209662	0.336088
TLR1	1.604291	4.670386	3.72E-06	4.39E-05	4.21E-06	4.84E-05
TLR10	0.214056	0.480596	0.63098	0.743482	0.631562	0.743759
TLR3	-0.79847	-1.41943	0.156294	0.269077	0.156053	0.26863
TLR5	1.381554	1.897941	0.058185	0.126821	0.05765	0.125951
TM4SF1	0.361688	0.71277	0.476266	0.610598	0.476399	0.610748
TM4SF4	-0.13246	-0.12517	0.900432	0.939825	0.900101	0.939479
TM4SF5	-1.99135	-2.42321	0.01568	0.044315	0.015408	0.043783
TM7SF2	1.170042	1.657293	0.097985	0.187971	0.097318	0.186998

TM7SF3	0.731126	1.474433	0.140891	0.249224	0.141097	0.249494
TM9SF1	-0.68734	-0.84572	0.398046	0.53682	0.396826	0.535041
TM9SF2	-0.31219	-0.84159	0.400353	0.53854	0.402421	0.539869
TMC4	3.404395	5.171006	3.18E-07	5.34E-06	3.04E-07	5.14E-06
TMCC1	0.65323	1.008256	0.313739	0.456101	0.313001	0.45531
TMED3	-0.80064	-2.49967	0.012698	0.037478	0.013362	0.039104
TMED5	0.497557	0.73166	0.464663	0.601132	0.463862	0.600096
TMED9	0.259594	0.368792	0.712413	0.806829	0.711872	0.806411
TMEM18	-0.54284	-0.85895	0.390714	0.52982	0.390061	0.528938
TMEM25	-0.93772	-0.99469	0.320292	0.462338	0.318811	0.460908
TMEM37	0.69855	0.719187	0.472307	0.606846	0.470916	0.605691
TMEM38A	-2.08696	-3.85679	0.000127	0.000841	0.000127	0.000837
TMEM38B	0.455345	1.006068	0.31479	0.45698	0.31552	0.457417
TMF1	2.20531	3.799656	0.00016	0.001019	0.000158	0.00101
TMOD3	0.525036	1.167544	0.243456	0.377887	0.244203	0.378815
TMPO	0.475748	0.850599	0.395332	0.533926	0.39508	0.533585
TMPRSS2	1.519592	1.436403	0.151411	0.262908	0.150045	0.260997
TMPRSS4	1.966902	2.871815	0.004226	0.015517	0.004156	0.015332
TNC	0.380075	0.706957	0.479869	0.613819	0.479775	0.613552
TNFAIP1	0.411343	0.454551	0.649597	0.758347	0.648634	0.757412
TNFAIP2	3.818012	6.905376	1.28E-11	9.42E-10	1.25E-11	9.15E-10
TNFAIP3	1.473972	3.115965	0.001921	0.00815	0.001941	0.008233
TNFAIP8	0.790714	1.14223	0.253816	0.390742	0.25292	0.389618
TNFRSF10B	-1.07736	-1.73944	0.082472	0.164884	0.082086	0.164211
TNFRSF11B	-0.42114	-0.39377	0.693888	0.79427	0.692908	0.793771
TNFRSF12A	0.257664	0.445029	0.65646	0.765029	0.656205	0.764732
TNFRSF14	-1.08586	-3.65919	0.000275	0.001644	0.000313	0.001832
TNFRSF19	-0.76038	-0.82247	0.411136	0.54896	0.40973	0.547549
TNFRSF1B	-0.38251	-1.03952	0.298983	0.441055	0.301173	0.442625
TNFRSF21	1.091078	2.739795	0.006331	0.021689	0.0065	0.022154
TNFSF10	2.2239	3.292046	0.001053	0.004955	0.001032	0.004873
TNFSF11	2.025114	4.265542	2.32E-05	0.000205	2.36E-05	0.000208
TNFSF13	2.004018	2.38923	0.017193	0.04785	0.016894	0.047125
TNFSF13B	3.484076	8.495149	1.57E-16	3.08E-14	1.86E-16	3.96E-14
TNIP1	0.691526	1.112243	0.266481	0.405326	0.26587	0.404267
TNIP2	1.101074	2.494679	0.012876	0.037823	0.013037	0.038321
TNK2	0.143604	0.291354	0.770881	0.848063	0.771012	0.848258
TNKS	1.237405	1.608671	0.108216	0.203365	0.107381	0.202147
TNNI2	1.527551	1.513551	0.130668	0.235123	0.129426	0.233872
TNNI3	1.608989	3.917066	1.00E-04	0.000687	0.000104	0.000711
TNNT2	1.737408	3.916786	0.0001	0.000687	0.000103	0.000703

TNNT3	-0.90209	-1.37866	0.168515	0.28515	0.167841	0.284272
TNPO1	3.153664	3.883155	0.000115	0.000771	0.00011	0.000741
TNPO2	0.416336	1.588674	0.112662	0.209958	0.11741	0.216912
TNRC6B	-2.69232	-4.74292	2.64E-06	3.26E-05	2.59E-06	3.24E-05
TNRC6C	-1.58871	-1.90507	0.057251	0.125328	0.056586	0.124277
TOB1	-1.58444	-2.2445	0.025165	0.06442	0.024876	0.063766
TOM1	1.469011	6.313907	5.31E-10	1.95E-08	1.03E-09	3.61E-08
TOMM34	-0.56008	-0.85678	0.391908	0.530673	0.391161	0.529903
TOMM40	1.492528	3.757102	0.000189	0.001189	0.000198	0.001241
TOMM70A	1.638418	5.150916	3.52E-07	5.79E-06	4.28E-07	6.96E-06
TOP2A	2.229516	2.612776	0.009207	0.029139	0.009015	0.028626
TOP2B	-0.1847	-0.62376	0.533026	0.660311	0.536845	0.663993
TOP3A	-1.16205	-4.81717	1.85E-06	2.45E-05	2.67E-06	3.32E-05
TOP3B	0.336345	0.63611	0.524948	0.653999	0.524919	0.654061
TOPBP1	0.234233	0.489375	0.624756	0.738148	0.625063	0.73851
TOR1A	-0.52768	-1.08074	0.280248	0.420282	0.280573	0.420636
TOR1B	-0.62325	-0.63053	0.528591	0.657243	0.527278	0.656216
TOX	-3.24576	-3.66799	0.000266	0.001607	0.000256	0.001546
TP53BP1	-2.90337	-3.9787	7.78E-05	0.000561	7.51E-05	0.000544
TP53I3	2.188953	3.562102	0.000397	0.002212	0.000391	0.002191
TP53INP1	-1.30634	-2.00388	0.045533	0.103836	0.045195	0.103065
TPD52L2	-0.42461	-1.31453	0.189172	0.310584	0.19235	0.314122
TPI1	-1.70526	-5.89142	6.39E-09	1.78E-07	8.89E-09	2.40E-07
TPM1	0.023389	0.058444	0.953414	0.972661	0.953561	0.97274
TPM2	-0.10809	-0.23037	0.81788	0.882244	0.818077	0.882192
TPMT	1.134364	1.104221	0.269941	0.408212	0.268373	0.406649
TPP1	-0.2719	-0.71344	0.475849	0.610396	0.477582	0.611617
TPP2	0.249681	0.787735	0.431164	0.567566	0.434668	0.570176
TPR	-2.22411	-2.98455	0.002956	0.011655	0.002892	0.011481
TPSAB1	2.759561	3.802072	0.000158	0.001012	0.000153	0.000986
TPSG1	-2.02161	-1.84748	0.065171	0.137753	0.064257	0.136161
TPST2	2.239461	2.89381	0.003945	0.014691	0.003859	0.014474
TPX2	-0.01922	-0.02888	0.976972	0.984302	0.976934	0.984263
TRA2A	1.342498	1.921232	0.055178	0.121925	0.054707	0.121041
TRAF1	0.008515	0.026876	0.978567	0.985487	0.97873	0.985651
TRAF3	1.989673	3.550294	0.000415	0.002292	0.000412	0.002291
TRAF4	1.484785	2.542894	0.011245	0.034053	0.011174	0.033839
TRAF5	-0.05136	-0.07239	0.942318	0.966164	0.942202	0.966045
TRAF6	-0.33638	-0.56398	0.572977	0.695325	0.572593	0.694858
TRAF7	-0.21239	-0.4347	0.663938	0.771067	0.66415	0.771314
TRAM1	-0.77126	-1.00791	0.313905	0.456132	0.312769	0.455113

TRAP1	-1.20575	-1.6035	0.109352	0.205025	0.108546	0.203904
TRAPPC3	0.580819	1.452199	0.146971	0.257171	0.14825	0.258735
TRAPPC4	-3.01865	-4.56581	6.04E-06	6.62E-05	5.83E-06	6.43E-05
TRAPPC6B	-1.26905	-2.26802	0.023684	0.061431	0.023607	0.06115
TREH	2.54327	6.960138	8.96E-12	7.02E-10	1.10E-11	8.34E-10
TRERF1	-0.78544	-0.94446	0.345316	0.487112	0.344029	0.486518
TRIB1	0.863598	1.353853	0.176295	0.295607	0.175674	0.294685
TRIB2	-3.59568	-5.94328	4.75E-09	1.38E-07	4.55E-09	1.36E-07
TRIM10	1.286532	2.100665	0.036088	0.086143	0.035868	0.085703
TRIM16	5.991339	7.730071	4.57E-14	5.97E-12	3.96E-14	5.31E-12
TRIM21	0.583524	0.734531	0.462913	0.599199	0.461795	0.597917
TRIM22	0.492941	0.700982	0.483587	0.616452	0.482728	0.615946
TRIM23	1.485686	1.936981	0.053218	0.118207	0.052658	0.117239
TRIM26	1.350605	3.648704	0.000287	0.001699	0.000305	0.001798
TRIM28	0.407079	1.011241	0.31231	0.454586	0.313794	0.45604
TRIM29	1.341563	1.449964	0.147593	0.258164	0.146377	0.256642
TRIM3	-0.69017	-1.76747	0.077659	0.15753	0.078708	0.159314
TRIM31	-0.91339	-1.85776	0.063694	0.135356	0.063852	0.135611
TRIM32	0.300543	0.434822	0.663848	0.771067	0.663256	0.770656
TRIM37	-0.26551	-0.38396	0.701144	0.799179	0.70061	0.798851
TRIM38	2.612224	4.604068	5.06E-06	5.68E-05	4.99E-06	5.61E-05
TRIM46	0.72779	0.846871	0.397406	0.53611	0.396093	0.534339
TRIM5	-0.43506	-0.99101	0.322082	0.464067	0.322993	0.46424
TRIM54	4.284438	4.393688	1.32E-05	0.000126	1.24E-05	0.000121
TRIM56	-1.02285	-2.60613	0.009385	0.029546	0.00963	0.030216
TRIO	-2.23078	-3.40235	0.000713	0.003602	0.000699	0.003544
TRIP10	1.812188	1.745797	0.08136	0.1634	0.080358	0.161956
TRIP11	0.532189	1.05263	0.292936	0.435512	0.293097	0.435238
TRIP12	0.100302	0.106953	0.914862	0.948358	0.914604	0.948122
TRIP13	2.399711	2.614561	0.009159	0.029048	0.008953	0.028515
TRIP4	-3.30033	-4.11506	4.41E-05	0.000352	4.22E-05	0.000339
TRMT1	0.957404	2.405789	0.01644	0.045993	0.016789	0.046912
TROAP	3.421696	4.749418	2.56E-06	3.18E-05	2.43E-06	3.10E-05
TRPA1	-3.0768	-4.29656	2.02E-05	0.000183	1.95E-05	0.000176
TRPC4AP	2.280796	6.406998	3.01E-10	1.22E-08	3.66E-10	1.45E-08
TRPC6	1.69228	3.634246	0.000303	0.001773	0.000308	0.001809
TRPM4	1.940354	4.839592	1.66E-06	2.25E-05	1.78E-06	2.40E-05
TRPS1	-0.3977	-1.52468	0.127867	0.231411	0.132956	0.238873
TRPV6	3.902633	3.898553	0.000108	0.000732	0.000102	0.000701
TRRAP	0.575735	0.690363	0.490233	0.622057	0.489071	0.620749
TRUB2	-0.70584	-1.87593	0.061152	0.131661	0.062226	0.13318

TSC1	-0.53391	-0.96687	0.334002	0.475358	0.333792	0.475113
TSC2	1.239017	2.632248	0.008701	0.027928	0.008771	0.028062
TSFM	-1.12395	-1.61888	0.106001	0.200242	0.105337	0.199148
TSG101	-0.7136	-1.39516	0.163484	0.278599	0.163578	0.278354
TSN	-1.50362	-3.69785	0.000237	0.001455	0.000247	0.001504
TSNAX	0.883269	2.057384	0.040082	0.093818	0.040512	0.094635
TSPAN1	3.369693	4.871797	1.42E-06	1.99E-05	1.35E-06	1.92E-05
TSPYL2	-0.79505	-1.95405	0.051161	0.114667	0.051836	0.116235
TSPYL4	1.210428	1.908065	0.056861	0.12481	0.056513	0.124234
TSSC1	-2.93129	-3.20878	0.001404	0.00631	0.001359	0.006128
TSSC4	-0.34594	-1.22123	0.222481	0.352669	0.227395	0.35973
TST	2.069271	4.046982	5.87E-05	0.000444	5.89E-05	0.000446
TSTA3	-0.07234	-0.1134	0.909755	0.945507	0.909626	0.945435
TTC1	0.24444	0.295793	0.767491	0.846563	0.766893	0.846103
TTC13	1.645006	2.410391	0.016236	0.045558	0.016042	0.045096
TTC14	1.443152	2.83226	0.004778	0.017264	0.004788	0.017289
TTC4	-0.62944	-0.96928	0.332795	0.474125	0.332051	0.473352
TTC7A	0.018893	0.024263	0.980651	0.986382	0.980604	0.986337
TTF2	-1.50498	-1.67779	0.093911	0.181724	0.092955	0.180607
TTK	1.628928	3.004448	0.002772	0.01106	0.002764	0.011045
TLL1	0.606266	1.498781	0.134458	0.240927	0.135625	0.242555
TTN	3.876461	5.901191	6.05E-09	1.71E-07	5.70E-09	1.62E-07
TTR	-3.40437	-2.90258	0.003837	0.014358	0.003714	0.014068
TUBB	-3.68517	-6.49299	1.77E-10	7.92E-09	1.71E-10	7.98E-09
TUBB4	0.560764	0.586572	0.557712	0.682261	0.556491	0.681122
TUBE1	2.24606	4.522897	7.36E-06	7.75E-05	7.43E-06	7.86E-05
TUBGCP2	0.732304	0.763887	0.445236	0.580796	0.443822	0.579274
TUBGCP3	-0.51096	-0.84943	0.395981	0.534648	0.39548	0.533818
TUFT1	1.35117	1.722613	0.085476	0.169437	0.084711	0.168133
TULP3	-1.0431	-2.66003	0.008023	0.026277	0.008241	0.026823
TUSC2	0.63302	1.343867	0.179501	0.299169	0.179959	0.299932
TXN2	1.909942	7.742123	4.19E-14	5.63E-12	9.57E-14	1.15E-11
TXNDC11	0.655291	0.643082	0.520417	0.649313	0.519057	0.64796
TXNDC9	-0.38701	-0.677	0.498667	0.629991	0.498367	0.629488
TXNL1	0.848778	2.103402	0.035848	0.085673	0.036408	0.086906
TXNL4A	-0.97394	-1.08216	0.279618	0.419471	0.278211	0.418028
TXNRD2	1.017105	3.953467	8.62E-05	0.000611	0.000107	0.000727
TYK2	-0.69108	-3.01218	0.002703	0.010841	0.003223	0.012541
TYMS	-0.79675	-1.45239	0.146918	0.257171	0.146762	0.257189
TYRO3	2.234697	2.215022	0.027135	0.068236	0.026641	0.067246
TYROBP	0.458654	0.603777	0.546221	0.672052	0.545291	0.671083

U2AF1	-0.5711	-1.2034	0.229299	0.361889	0.229752	0.362604
U2AF2	1.425333	3.604264	0.000339	0.001946	0.000355	0.002028
UBA52	1.111473	3.57463	0.000379	0.002128	0.000422	0.002324
UBE2A	1.603474	3.393836	0.000735	0.003682	0.000744	0.003722
UBE2B	-1.28706	-2.26551	0.023838	0.061723	0.023745	0.06142
UBE2C	-0.48591	-0.85251	0.394275	0.532957	0.393954	0.532524
UBE2D2	-0.34254	-0.62735	0.530667	0.658683	0.530527	0.658738
UBE2D3	0.158884	0.306845	0.759068	0.839445	0.759095	0.83947
UBE2E3	0.476765	1.027931	0.304398	0.446108	0.304991	0.446699
UBE2G1	-0.45455	-0.89205	0.372726	0.511926	0.372851	0.511901
UBE2G2	-1.48547	-3.65361	0.000281	0.001671	0.000293	0.00174
UBE2J1	-1.73154	-4.11731	4.37E-05	0.000351	4.56E-05	0.00036
UBE2L3	-1.13672	-2.08831	0.037192	0.088373	0.03713	0.088136
UBE2L6	-2.53637	-4.81127	1.90E-06	2.49E-05	1.90E-06	2.54E-05
UBE2M	-0.54816	-1.96647	0.049706	0.111833	0.052269	0.116815
UBE2V2	-2.07559	-6.50261	1.67E-10	7.76E-09	2.24E-10	1.01E-08
UBE4B	1.461215	3.603513	0.00034	0.001949	0.000354	0.002025
UBL3	0.48151	0.678972	0.497418	0.628859	0.496556	0.628233
UBN1	-0.00249	-0.00978	0.992197	0.9941	0.992306	0.99421
UBOX5	-1.01577	-2.63209	0.008705	0.027928	0.008955	0.028515
UBP1	1.446798	2.316555	0.020865	0.055688	0.020697	0.055397
UBQLN1	1.997452	4.161808	3.62E-05	0.000297	3.67E-05	0.0003
UBQLN2	-0.54569	-0.79548	0.426653	0.563604	0.425802	0.562787
UBR1	-1.20701	-1.37639	0.169215	0.285877	0.168003	0.284443
UBTD1	-0.1389	-0.14826	0.882189	0.926752	0.881833	0.926378
UCHL1	0.606353	0.901401	0.367738	0.506853	0.366907	0.505856
UCHL3	-2.48117	-2.87789	0.004146	0.015297	0.004042	0.014995
UCK2	0.340441	0.388579	0.697726	0.79711	0.696909	0.796291
UCN	-2.59002	-4.87307	1.41E-06	1.99E-05	1.40E-06	1.98E-05
UCP2	0.416663	0.49717	0.619252	0.733674	0.618307	0.733109
UFD1L	-0.49399	-1.08766	0.277185	0.416753	0.27789	0.417947
UGCG	0.505013	1.535975	0.125074	0.227671	0.127636	0.231171
UGT1A6	3.286898	3.336309	0.000902	0.004351	0.000868	0.004228
UGT8	-0.59481	-0.93309	0.351151	0.490946	0.350463	0.490376
UHRF1	-0.58783	-1.05115	0.293614	0.435739	0.293356	0.435357
ULK1	-0.20559	-0.67467	0.500149	0.630891	0.503823	0.63338
ULK2	0.425906	1.088507	0.27681	0.416455	0.278493	0.418134
UMPS	-0.48752	-0.81295	0.416568	0.554166	0.416083	0.553678
UNC119	1.099117	3.4689	0.00056	0.002942	0.000616	0.003182
UNC13B	1.863963	2.96148	0.003183	0.012385	0.003142	0.012264
UNC93B1	2.557879	2.822711	0.00492	0.017703	0.004795	0.017294

UNG	-0.36182	-0.64024	0.522263	0.65127	0.522008	0.650952
UNKL	-0.20527	-0.28019	0.779427	0.854914	0.778963	0.854804
UPF3A	1.116171	2.62495	0.008888	0.028378	0.009043	0.028659
UPK1A	0.776075	0.84864	0.396421	0.53501	0.395017	0.533585
UPP1	-0.14552	-0.41982	0.674767	0.778832	0.6765	0.78064
UQCRB	-0.19247	-0.34633	0.729218	0.820523	0.729092	0.820382
UQCRC1	0.550792	0.981518	0.326734	0.467759	0.326463	0.467371
UQCRC2	-0.28069	-0.58572	0.558288	0.68261	0.558631	0.682675
UQCRCFS1	0.774194	0.875942	0.381413	0.519908	0.380047	0.518876
UROD	0.601118	0.864896	0.387443	0.526904	0.386538	0.52574
UROS	-0.16119	-0.47481	0.635097	0.746052	0.637153	0.747482
USF2	0.064668	0.160893	0.872232	0.919993	0.872623	0.920406
USP1	-1.37705	-2.29618	0.022011	0.057988	0.021871	0.057848
USP10	0.695167	1.197638	0.231532	0.364923	0.231152	0.364569
USP13	-2.22943	-4.11395	4.43E-05	0.000352	4.41E-05	0.000352
USP14	0.63936	1.16856	0.243047	0.377377	0.242876	0.377295
USP15	0.965025	2.453119	0.014447	0.04158	0.014781	0.042336
USP16	-0.45781	-0.62005	0.535464	0.662633	0.534569	0.661699
USP2	-0.03799	-0.07794	0.937902	0.963946	0.937945	0.963865
USP30	0.526322	0.615864	0.538218	0.664991	0.537096	0.663998
USP31	1.577789	2.232712	0.025937	0.065918	0.025641	0.065355
USP32	0.789101	1.801475	0.072132	0.148751	0.072673	0.149612
USP33	-2.25133	-4.19424	3.15E-05	0.000264	3.14E-05	0.000263
USP39	-0.87352	-0.86365	0.388125	0.527374	0.386587	0.52574
USP42	1.160528	1.768219	0.077534	0.157345	0.077059	0.156638
USP48	1.908243	5.155107	3.45E-07	5.71E-06	3.87E-07	6.42E-06
USP5	-2.20342	-2.69023	0.00734	0.024449	0.007187	0.024019
USP53	0.439203	0.562464	0.574011	0.69586	0.57308	0.694911
USP7	-1.1003	-1.68332	0.092834	0.180522	0.092319	0.179891
USP8	0.003003	0.013149	0.989513	0.992682	0.989706	0.992875
USP9X	1.921	2.473418	0.013659	0.039752	0.013434	0.039289
USP9Y	0.234822	0.214668	0.830099	0.890136	0.829527	0.889929
UST	-1.6985	-2.20593	0.027768	0.069579	0.027399	0.068753
UTP14A	-0.07686	-0.11271	0.910302	0.945507	0.91014	0.945461
UTRN	-1.80251	-2.71045	0.006912	0.023238	0.006818	0.023003
UTY	1.922461	5.4044	9.40E-08	1.86E-06	1.09E-07	2.13E-06
UVRAG	0.070079	0.196077	0.844616	0.899546	0.845392	0.900373
UXT	-2.20236	-3.19765	0.001459	0.006511	0.001429	0.006396
VAMP2	-0.42914	-1.35141	0.177074	0.296384	0.180358	0.300491
VAMP3	1.433709	1.766208	0.077871	0.157892	0.077105	0.156638
VAMP4	0.785365	1.896677	0.058352	0.12702	0.05902	0.128029

VAMP5	1.299334	1.314428	0.189206	0.310584	0.187799	0.309071
VANGL1	2.395101	3.744306	0.000198	0.00124	0.000194	0.001219
VAPA	2.520549	5.935105	4.98E-09	1.43E-07	5.36E-09	1.55E-07
VAPB	-1.40934	-2.81257	0.005076	0.018115	0.005093	0.018135
VASP	2.557761	2.740042	0.006327	0.021688	0.006169	0.021194
VAT1	0.33737	1.037836	0.299766	0.441491	0.303162	0.444954
VAV1	0.733943	1.481827	0.138913	0.246747	0.139122	0.24684
VAV2	1.91582	4.566483	6.02E-06	6.62E-05	6.34E-06	6.93E-05
VAV3	2.624508	3.047548	0.002409	0.009897	0.002342	0.009664
VBPI	-1.61724	-2.48857	0.013097	0.038352	0.012955	0.038104
VDAC1	-1.15209	-3.10446	0.001996	0.008423	0.002088	0.008763
VDAC3	-0.18935	-0.45049	0.65252	0.761088	0.653317	0.761933
VDR	-0.396	-0.69442	0.48769	0.619422	0.487394	0.619457
VEGFB	-0.3756	-1.30098	0.193767	0.315779	0.198258	0.321315
VGLL4	-1.66131	-2.56058	0.010694	0.032745	0.010574	0.032468
VIL1	-0.02818	-0.03967	0.96837	0.979947	0.968306	0.979949
VIP	1.055272	1.890582	0.059163	0.128251	0.05903	0.128029
VIPR1	1.158349	1.980522	0.048103	0.108694	0.047907	0.108298
VIPR2	-0.5156	-0.60873	0.542932	0.668889	0.541829	0.667697
VKORC1L1	-1.31492	-1.61482	0.106877	0.2016	0.10597	0.200023
VNN1	0.423822	0.429407	0.667782	0.773995	0.666788	0.773041
VPS11	0.733047	2.031446	0.042651	0.098388	0.043667	0.100355
VPS13C	0.701546	1.460852	0.144581	0.254217	0.14492	0.254626
VPS13D	-0.07439	-0.15398	0.877678	0.924073	0.877774	0.923973
VPS28	1.564571	3.638577	0.000298	0.001752	0.000307	0.001806
VPS35	1.50194	2.59313	0.009743	0.030389	0.009684	0.030344
VPS41	-0.07045	-0.21496	0.82987	0.890093	0.831014	0.890913
VPS4A	-1.29193	-2.8914	0.003975	0.014791	0.004034	0.014976
VPS4B	0.91378	1.053557	0.292511	0.43534	0.291155	0.433596
VPS54	-0.55514	-1.21131	0.226255	0.357927	0.226888	0.359169
VRK2	1.378946	3.644022	0.000292	0.00172	0.000308	0.001811
VRK3	1.440022	1.731868	0.083813	0.166986	0.082989	0.165687
VSIG2	0.283058	0.398625	0.690312	0.791912	0.689721	0.791272
VSIG4	1.955747	4.293786	2.05E-05	0.000183	2.10E-05	0.000189
VSNL1	-0.76112	-1.07423	0.283153	0.423423	0.282189	0.422251
VTI1B	-0.2229	-0.6851	0.493548	0.625586	0.496572	0.628233
WARS	-3.61722	-5.81204	1.00E-08	2.58E-07	9.59E-09	2.53E-07
WAS	-2.95605	-6.8057	2.45E-11	1.56E-09	2.66E-11	1.71E-09
WASF1	-0.2926	-0.51943	0.603656	0.720646	0.603444	0.720393
WASF2	0.596213	1.600625	0.109988	0.205708	0.111524	0.208167
WASL	-0.06514	-0.07108	0.943354	0.966804	0.943185	0.966631

WBP11	2.666397	5.180016	3.04E-07	5.13E-06	3.04E-07	5.14E-06
WBP2	0.998641	3.75619	0.000189	0.001192	0.000227	0.001405
WDFY1	-1.2899	-3.64605	0.00029	0.001709	0.000311	0.001823
WDHD1	2.520345	6.026811	2.93E-09	9.35E-08	3.18E-09	1.01E-07
WDR1	-1.2713	-3.5085	0.000484	0.002599	0.000515	0.002733
WDR18	0.522174	0.662693	0.507782	0.636852	0.506735	0.635768
WDR20	0.704325	1.629017	0.103836	0.197025	0.104552	0.198142
WDR26	2.760335	4.6966	3.28E-06	3.97E-05	3.21E-06	3.90E-05
WDR3	-1.61664	-2.36661	0.018269	0.050155	0.018058	0.049739
WDR33	-1.18067	-2.22319	0.026576	0.067155	0.026557	0.067071
WDR4	-0.08086	-0.13776	0.890474	0.932328	0.890377	0.932228
WDR44	2.553683	8.568708	8.91E-17	2.00E-14	1.60E-16	3.59E-14
WDR45	1.957742	3.249164	0.001222	0.005616	0.001207	0.005546
WDR5	0.903518	1.350356	0.177413	0.29674	0.176673	0.295818
WFS1	-0.4185	-1.16272	0.245409	0.380541	0.247738	0.3839
WHSC1	-1.30282	-1.87616	0.06112	0.131652	0.060628	0.130771
WISP1	1.354069	3.371215	0.000797	0.003933	0.000826	0.004059
WISP2	-0.47692	-0.50614	0.612944	0.729141	0.611857	0.728216
WNK1	-0.91311	-1.18879	0.234994	0.368771	0.233887	0.367772
WNK2	-0.04779	-0.05929	0.952744	0.972398	0.952623	0.972275
WNT10B	0.937189	1.544901	0.122899	0.224937	0.12248	0.224165
WNT4	0.627116	1.130822	0.258583	0.396522	0.25836	0.396051
WRN	-0.26112	-0.36881	0.712399	0.806829	0.71185	0.806411
WT1	-0.03507	-0.03888	0.968998	0.98005	0.968907	0.979958
WTAP	2.318553	3.266713	0.00115	0.005342	0.001124	0.00523
WWP1	3.170287	8.377308	3.87E-16	6.99E-14	4.92E-16	8.57E-14
WWP2	-1.43734	-2.04498	0.041294	0.095818	0.040895	0.095294
XBP1	-0.90107	-1.67955	0.093568	0.181433	0.093501	0.181368
XK	-0.94203	-1.0025	0.316507	0.458706	0.315031	0.456848
XPC	0.12315	0.172711	0.862937	0.913925	0.862661	0.913541
XPNPEP1	2.217788	4.956263	9.37E-07	1.40E-05	9.73E-07	1.45E-05
XPNPEP2	3.211112	3.987828	7.49E-05	0.000544	7.18E-05	0.000526
XPO1	0.340483	0.480222	0.631245	0.743493	0.630561	0.742766
XPO4	0.336431	0.910096	0.363138	0.502281	0.365274	0.504245
XPR1	1.349343	2.998931	0.002822	0.01123	0.002865	0.011391
XRCC3	0.063015	0.091939	0.926777	0.955709	0.926643	0.955931
XRCC4	1.570629	3.023289	0.002608	0.010538	0.002609	0.010543
XRCC5	-0.09461	-0.12689	0.89907	0.938611	0.898845	0.938377
XRN1	-0.31741	-0.7286	0.46653	0.602719	0.467412	0.603561
XYLT1	-1.38334	-1.53721	0.124771	0.227383	0.123669	0.225576
YAF2	1.501907	4.069245	5.35E-05	0.00041	5.77E-05	0.000438

YARS	1.344589	4.851089	1.57E-06	2.14E-05	2.04E-06	2.68E-05
YEATS4	-1.22439	-1.86072	0.063274	0.13487	0.062847	0.134203
YES1	0.924948	1.507473	0.132218	0.237471	0.131756	0.236989
YME1L1	1.085426	2.987063	0.002932	0.01159	0.003068	0.012035
YPEL2	2.036383	1.923945	0.054836	0.121284	0.054028	0.119723
YTHDF1	0.768825	1.077106	0.281867	0.422037	0.280887	0.420846
YTHDF3	-1.95612	-6.46103	2.16E-10	9.35E-09	3.03E-10	1.26E-08
YWHAB	0.277578	0.614393	0.53919	0.665666	0.539812	0.666084
YWHAE	-1.23126	-2.96182	0.00318	0.012381	0.003258	0.012655
YWHAG	0.039532	0.099983	0.920391	0.951989	0.920656	0.952263
YWHAH	1.094181	3.58154	0.000369	0.002089	0.000414	0.002297
YWHAQ	2.452368	5.173183	3.15E-07	5.30E-06	3.22E-07	5.41E-06
YWHAZ	0.114709	0.315951	0.75215	0.834144	0.753293	0.834625
YY1	2.301706	4.337775	1.69E-05	0.000155	1.68E-05	0.000155
ZAK	-0.91836	-1.58997	0.112369	0.209495	0.112089	0.209138
ZBED4	0.367075	0.820967	0.411992	0.549791	0.412766	0.550199
ZBTB11	1.075052	2.676049	0.007654	0.025315	0.007841	0.025802
ZBTB17	-0.24117	-0.31456	0.753204	0.83466	0.752642	0.834274
ZBTB2	0.617629	1.651734	0.099114	0.189904	0.100551	0.191875
ZBTB33	0.663403	0.958997	0.337948	0.479576	0.337039	0.47843
ZCCHC3	0.620361	0.810174	0.418163	0.555756	0.417068	0.554204
ZCWPW1	0.989929	1.700354	0.089584	0.175876	0.089315	0.175184
ZDHHC1	-0.90443	-2.02124	0.0437	0.100583	0.044044	0.100881
ZDHHC14	-0.01091	-0.01796	0.985673	0.990309	0.985657	0.990293
ZDHHC18	0.86132	1.328242	0.184605	0.305615	0.183932	0.304485
ZDHHC21	1.609749	2.411321	0.016195	0.045525	0.016014	0.045096
ZDHHC5	0.782912	1.801294	0.07216	0.148751	0.07273	0.149664
ZDHHC6	-0.07958	-0.12739	0.898673	0.938405	0.898541	0.938268
ZDHHC9	-1.6487	-3.28148	0.001093	0.0051	0.001097	0.005121
ZFP106	0.071158	0.100114	0.920288	0.951989	0.920127	0.951926
ZFP161	1.141366	1.309123	0.190996	0.312262	0.189742	0.311056
ZFP36L2	1.438443	2.763958	0.005886	0.020478	0.005889	0.020414
ZFP37	2.327159	3.160785	0.001653	0.007214	0.001614	0.007054
ZFP64	0.284362	0.495235	0.620616	0.734364	0.62036	0.734062
ZFP91	0.601789	1.356472	0.175461	0.294419	0.176215	0.295263
ZFPL1	0.932068	1.567387	0.117553	0.217178	0.117191	0.216707
ZFPM2	1.223829	2.524204	0.011854	0.035418	0.011915	0.035601
ZFR	-0.4432	-0.96934	0.332769	0.474125	0.333441	0.475004
ZFX	2.553654	3.683115	0.000251	0.00153	0.000244	0.001494
ZFYVE9	-0.12627	-0.20966	0.834005	0.893102	0.83383	0.892915
ZIC2	-2.14865	-2.37299	0.01796	0.049665	0.017624	0.048868

ZMPSTE24	0.890206	2.876029	0.004171	0.015352	0.004486	0.016357
ZMYND11	1.471601	3.026815	0.002578	0.010463	0.002595	0.010498
ZMYND19	2.074643	2.983526	0.002966	0.011684	0.002911	0.011545
ZNF124	0.478197	0.840047	0.401218	0.539394	0.400903	0.538557
ZNF132	2.81548	6.562982	1.14E-10	5.71E-09	1.24E-10	6.35E-09
ZNF134	-3.65148	-3.95691	8.50E-05	0.000606	8.09E-05	0.000578
ZNF135	-2.11599	-2.11052	0.035229	0.08439	0.034642	0.083283
ZNF140	2.30403	5.979888	3.84E-09	1.20E-07	4.36E-09	1.32E-07
ZNF142	0.219205	0.76565	0.444187	0.57991	0.448868	0.584236
ZNF148	0.720523	2.853228	0.004478	0.016326	0.005078	0.018123
ZNF165	1.39163	1.60911	0.10812	0.203266	0.107134	0.201897
ZNF174	-1.37511	-2.63738	0.008572	0.027652	0.008574	0.027596
ZNF184	-0.52692	-0.88652	0.375695	0.514951	0.375228	0.514011
ZNF187	0.653948	1.579388	0.114776	0.212799	0.11574	0.214586
ZNF189	0.277526	0.60133	0.547848	0.672821	0.548363	0.673277
ZNF202	-1.49605	-2.43682	0.015107	0.043024	0.014985	0.042712
ZNF211	0.99272	1.488377	0.137179	0.24459	0.136514	0.24359
ZNF212	1.046913	2.568915	0.010443	0.032164	0.010665	0.032654
ZNF213	1.41194	1.879654	0.060641	0.13086	0.060057	0.129779
ZNF217	-1.9473	-2.14766	0.032142	0.078738	0.031636	0.077686
ZNF22	0.559268	0.753229	0.451609	0.587154	0.450605	0.586173
ZNF23	1.341407	4.04532	5.91E-05	0.000446	6.59E-05	0.000491
ZNF235	1.306632	1.583998	0.113723	0.211431	0.112771	0.210076
ZNF238	-1.02617	-2.09656	0.036452	0.086878	0.036571	0.087207
ZNF24	0.641997	1.058032	0.290468	0.432847	0.289928	0.432179
ZNF250	1.082913	2.363215	0.018436	0.050451	0.018594	0.050748
ZNF263	2.173438	3.397051	0.000726	0.003655	0.000713	0.003605
ZNF264	0.967412	1.309945	0.190717	0.312262	0.189744	0.311056
ZNF271	0.596898	1.080385	0.280406	0.420386	0.280195	0.420338
ZNF3	0.490719	1.070353	0.284892	0.425753	0.285546	0.426731
ZNF300	1.848987	2.113852	0.034941	0.083831	0.034427	0.082934
ZNF317	-0.89507	-1.93997	0.052853	0.117674	0.053156	0.11818
ZNF318	1.225446	2.789999	0.005439	0.019134	0.005525	0.019393
ZNF32	2.466358	5.59863	3.30E-08	7.24E-07	3.47E-08	7.70E-07
ZNF324	-1.41619	-1.3293	0.184256	0.305253	0.182785	0.303136
ZNF330	-0.74755	-1.44865	0.14796	0.25871	0.148017	0.258713
ZNF347	0.444478	0.614452	0.53915	0.665666	0.538298	0.664996
ZNF350	2.469327	3.161393	0.00165	0.007206	0.001607	0.007038
ZNF395	0.40916	0.519994	0.60326	0.72054	0.602368	0.720023
ZNF410	-0.68618	-1.26827	0.205194	0.330165	0.205072	0.330194
ZNF419	-0.24161	-0.57491	0.56557	0.688113	0.566525	0.688739

ZNF44	1.998346	4.256409	2.41E-05	0.00021	2.46E-05	0.000214
ZNF451	1.012389	2.292236	0.022238	0.058294	0.022478	0.058921
ZNF467	0.69054	1.828492	0.067974	0.141989	0.069098	0.143636
ZNF473	0.655902	1.092545	0.275034	0.414181	0.27453	0.413423
ZNF503	0.48882	1.037236	0.300045	0.441657	0.300553	0.442274
ZNF511	2.130342	6.395082	3.24E-10	1.28E-08	4.14E-10	1.59E-08
ZNF513	2.607338	5.959104	4.33E-09	1.31E-07	4.61E-09	1.36E-07
ZNF532	2.478353	3.858618	0.000126	0.000837	0.000123	0.00082
ZNF542	-0.97897	-2.45883	0.014221	0.041019	0.014534	0.04178
ZNF559	1.071071	1.829941	0.067756	0.141788	0.067515	0.14122
ZNF561	-0.48702	-1.04831	0.294918	0.436709	0.295502	0.437298
ZNF577	-1.35298	-1.74408	0.08166	0.163668	0.080927	0.162476
ZNF585A	0.189518	0.315282	0.752658	0.834314	0.752406	0.834274
ZNF608	-0.57534	-0.99969	0.317863	0.459902	0.3175	0.459436
ZNF609	-0.60772	-0.94253	0.3463	0.487308	0.345578	0.487348
ZNF644	1.993519	5.440543	7.76E-08	1.56E-06	8.84E-08	1.76E-06
ZNF646	0.495194	0.493475	0.621858	0.735649	0.620735	0.73432
ZNF658	0.967222	1.417841	0.156758	0.269679	0.156007	0.26863
ZNF75A	0.865675	2.825026	0.004885	0.017595	0.005254	0.018567
ZNF76	-4.66014	-4.53107	7.09E-06	7.54E-05	6.61E-06	7.18E-05
ZNF79	1.95041	2.760821	0.005943	0.020577	0.005843	0.020377
ZNF81	-1.06027	-1.4763	0.14039	0.248524	0.13957	0.247446
ZNF85	0.261379	0.48644	0.626833	0.74023	0.626762	0.740124
ZNHIT2	-0.70468	-1.51286	0.130844	0.23526	0.131296	0.236344
ZNRD1	-1.05845	-1.48612	0.137774	0.245187	0.136977	0.244137
ZSCAN2	2.078587	3.013275	0.002694	0.010812	0.002644	0.010658
ZSWIM1	-0.27925	-0.80897	0.418856	0.55632	0.421526	0.558863
ZW10	0.589922	0.87683	0.380931	0.519703	0.380104	0.518876
ZWINT	1.148056	1.663205	0.096795	0.185841	0.096171	0.185171

Supplementary Table 5. Major pathway "inflammatory disease" and its sub-pathways (IPA results)

Asian Affymetrix datasets				
Major disease	Sub-disease	p-Value	Constituent gene(s)	# Constituent gene(s)
Inflammatory Disease	Rheumatic Disease	6.82E-08	ABCG2, ACO1, ACTL6A, ADAMTS1, ADAMTS2, AGER, AKAP13, AKR1A1, ALAS2, ALPL, ANXA1, AQP9, AR, ARIH1, ATM, B2M, BARD1, BCL6, BIRC5, BMP2, BRD2, C1R, CACNA2D1, CACNA2D2, CALCRL, CALR, CAMP, CCL13, CCL18, CCR1, CD33, CD34, CD36, CD68, CD79B, CD81, CD86, CILP, CLIC2, CLSTN2, COL9A2, COX15, CSF3R, CTSG, CXCL12, CYYR1, DEK, DHODH, EDNRA, EDNRB, EEF2, EGLN1, ELF3, ENPP2, EPOR, ERG, F10, F11R, FABP4, FAU, FGFR1OP, FN1, FOSB, GAB1, GABRD, GCA, GHR, GNB2, GOLPH3, GRN, GSR, HCG9, HDAC2, HIST1H2AC, HLA-C, HLA-DPB1, HLA-DQA1, HLA-DQB1, HMGB1, HNMT, HSPA1L, HYAL1, HYAL2, ICA1, ICOSLG, IDE, IFIT1, IFNAR1, IGF1, IGF1R, IGF2, IL11RA, IL18, IL1R1, IL2RA, IL4R, KLF12, LRRK2, MAG1, MAP4K4, MFHAS1, MYCBP2, MYO1C, NAGLU, NELL1, NR4A1, NR4A2, NR4A3, NUMB, NUP62, PCMI, PDE5A, PDGFD, PECAM1, PFAS, PHIP, PHTF1, PIK3CG, PPAT, PPP2CA, PPP3CB, PPP3R1, PRDX2, PRRC2A, PTGIR, PTK2B, PURA, PXX, RALA, RALB, RAMP2, RARRES2, RBP4, RECK, RFX3, RGS1, RGS6, RPS13, RPS16, S100A10, SCAP, SCML1, SCN1B, SCN3A, SDC4, SEC24B, SEL1L, SELP, SIPA1, SNCA, SRC, STAT3, STK19, SYN3, TCF4, TGFB2, TJP1, TLR3, TNFAIP3, TNFRSF1B, TNRC6B, TOPBP1, TP53BP1, TRIM10, TRIM21, TRIM26, TRIM31, TUBB4A, TUBE1, UFL1, USP15, VDR, VIPR2, ZMYND11	172
Inflammatory Disease	arthritis	2.35E-07	ABCG2, ACO1, ACTL6A, ADAMTS1, ADAMTS2, AGER, AKAP13, AKR1A1, ALAS2, ALPL, ANXA1, AQP9, AR, ARIH1, ATM, B2M, BARD1, BCL6, BIRC5, BMP2, BRD2, CACNA2D1, CACNA2D2, CALCRL, CALR, CCL13, CCL18, CCR1, CD33, CD36, CD68, CD79B, CD81, CD86, CILP, CLIC2, CLSTN2, COL9A2, COX15, CSF3R, CXCL12, CYYR1, DEK, DHODH, EEF2, EGLN1, ELF3, ENPP2, EPOR, F10, F11R, FABP4, FAU, FGFR1OP, FOSB, GABRD, GCA, GHR, GNB2, GOLPH3, GRN, GSR, HCG9, HDAC2, HIST1H2AC, HLA-C, HLA-DPB1, HLA-DQA1, HLA-DQB1, HMGB1, HNMT, HSPA1L, HYAL1, HYAL2, ICOSLG, IDE, IFNAR1, IGF1, IGF1R, IGF2, IL11RA, IL18, IL1R1, IL2RA, IL4R, KLF12, LRRK2, MAG1, MAP4K4, MFHAS1, MYCBP2, MYO1C, NAGLU, NELL1, NR4A1, NR4A2, NR4A3, NUMB, NUP62, PCMI, PDGFD, PECAM1, PFAS, PHIP, PHTF1, PIK3CG, PPAT, PPP3CB, PPP3R1, PRDX2, PRRC2A, PTK2B, PURA, RALA, RALB, RAMP2, RARRES2, RBP4, RECK, RFX3, RGS6, RPS13, RPS16, S100A10, SCAP, SCML1, SCN1B, SCN3A, SDC4, SEC24B, SEL1L, SIPA1, SNCA, SRC, STAT3, STK19, SYN3, TCF4, TGFB2, TJP1, TLR3, TNFAIP3, TNFRSF1B, TNRC6B, TOPBP1, TP53BP1, TRIM10, TRIM26, TRIM31, TUBB4A, TUBE1, UFL1, USP15, VIPR2, ZMYND11	153
Inflammatory Disease	rheumatoid arthritis	2.68E-06	ACO1, ACTL6A, ADAMTS2, AGER, AKAP13, AKR1A1, ALAS2, ALPL, ANXA1, AQP9, ARIH1, ATM, B2M, BCL6, BIRC5, BRD2, CALCRL, CALR, CCL13, CCL18, CCR1, CD33, CD36, CD68, CD86, CLIC2, CLSTN2, COX15, CSF3R, CXCL12, CYYR1, DEK, DHODH, EEF2, F10, F11R, FABP4, FAU, FGFR1OP, FOSB, GABRD, GCA, GHR, GNB2, GOLPH3, GRN, GSR, HCG9, HDAC2, HIST1H2AC, HLA-C, HLA-DPB1, HLA-DQA1, HLA-DQB1, HMGB1, HNMT, HSPA1L, ICOSLG, IDE, IFNAR1, IGF1, IGF1R, IGF2, IL11RA, IL18, IL1R1, IL2RA, IL4R, KLF12, LRRK2, MAG1, MAP4K4, MFHAS1, MYCBP2, MYO1C, NAGLU, NELL1, NR4A1, NR4A2, NR4A3, NUMB, PCMI, PECAM1, PFAS, PHIP, PHTF1, PIK3CG, PPAT, PPP3CB, PPP3R1, PRDX2, PRRC2A, PTK2B, RALB, RAMP2, RARRES2, RBP4, RECK, RFX3, RGS6, RPS13, RPS16, S100A10, SCAP, SCML1, SDC4, SEC24B, SEL1L, SNCA, SRC, STAT3, STK19, TCF4, TGFB2, TJP1, TLR3, TNFAIP3, TNFRSF1B, TNRC6B, TOPBP1, TRIM10, TRIM26, TRIM31, UFL1, USP15, VIPR2, ZMYND11	123
Inflammatory Disease	Dermatitis	7.79E-04	ABCA1, AHCY, ANXA1, ANXA5, ARIH1, ATM, CALR, CAMP, CAPZB, CCL13, CCL18, CPVL, CTSV, CYP3A4, FABP4, HLA-C, HLA-DQA1, HNMT, HTR2A, IDE, IL15, IL1R1, IL2RA, IL4R, ITGA6, JUN, KLK6, KLK7, KRT10, LEPR, LPL, MKI67, NKX2-5, NR4A2, OPTN, OSMR, PDK4, PHF1, PITPNB, PPARG, PPP3CB, PSAP, RARB, RNF138, RXRA, SELK, SELP, SELP, SFTPD, SMPD1, SRC, THBD, TNFAIP3, TUBB4A, TUBE1, ZNF395	56
Inflammatory Disease	Inflammatory Bowel Disease	1.24E-03	ANXA1, APEH, CAMP, CD86, CDC42BPA, DAG1, DARS, F10, FMO5, GHR, HLA-DQA1, ICOSLG, IFNAR1, IGF1, IGF1R, IL10RB, IL18, ITGB3, KRAS, LDB2, NELL1, NR5A2, PDE4A, PDE4D, PI3, PPARG, PPAT, PPP3CB, PROCR, RASGRP3, RGS1, SPON1, STAT3, TGFB2, TGFB2, TGFB2, THBD, TLR5, VDR	38
Inflammatory Disease	atopic dermatitis	2.62E-03	ABCA1, AHCY, ANXA1, ANXA5, ARIH1, ATM, CAMP, CAPZB, CCL13, CCL18, CPVL, CTSV, FABP4, HLA-C, HLA-DQA1, HNMT, HTR2A, IDE, IL2RA, IL4R, ITGA6, JUN, KLK6, KLK7, KRT10, LEPR, LPL, MKI67, NKX2-5, NR4A2, OPTN, OSMR, PDK4, PHF1, PITPNB, PPARG, PPP3CB, PSAP, RNF138, SELK, SELP, SFTPD, SMPD1, SRC,	46

			TNFAIP3,ZNF395	
--	--	--	----------------	--

non-Asian Affymetrix datasets				
Major disease	Sub-disease	p-Value	Constituent gene(s)	# Constituent gene(s)
Inflammatory Disease	arthritis	3.28E-05	ACLY,ADRA1B,ADRA1D,ALOX5,ARHGDIB,BMP4,C2,CACNA2D3,CACNA2D4,CASP3,CCND3,CD3D,CXCL10,DCTN1,DYM,ENO1,FCGR2A,FKBP5,GBP2,GNLY,GRP,GZMA,HCK,HCLS1,ICOS,IGFBP1,IL1A,ITPR3,LTF,MAP4K1,MICA,MS4A1,NPY,PPP1R7,PTPRC,RALGDS,RPS24,RUNX3,SDC1,SND1,SORL1,SPTA1,TYMS,VIP	44
Inflammatory Disease	Rheumatic Disease	2.86E-04	ACLY,ADRA1B,ADRA1D,ALOX5,ARHGDIB,BMP4,C2,CACNA2D3,CACNA2D4,CASP3,CCND3,CD22,CD3D,CXCL10,DCTN1,DYM,ENO1,FCGR2A,FKBP5,GBP2,GNLY,GRP,GZMA,HCK,HCLS1,ICOS,IGFBP1,IL1A,ITPR3,LTF,MAP4K1,MICA,MS4A1,NPY,PPP1R7,PTPRC,RALGDS,RPS24,RUNX3,SDC1,SND1,SORL1,SPTA1,TYMS,VIP	45
Inflammatory Disease	atopic dermatitis	5.37E-04	CBR1,CD2,DEFB1,ENO1,FKBP4,HCK,HTR2B,IDI1,IL1A,ITGB7,KRT15,KRT16,PRF1,PROM1,SYK,TPM1,TYMS	17
Inflammatory Disease	Dermatitis	6.61E-04	CBR1,CD2,DEFB1,ENO1,FKBP4,HCK,HTR2B,IDI1,IL1A,ITGB7,KRT14,KRT15,KRT16,PRF1,PROM1,PSEN1,SYK,TPM1,TYMS	19
Inflammatory Disease	rheumatoid arthritis	9.83E-04	ACLY,ALOX5,ARHGDIB,BMP4,C2,CASP3,CD3D,CXCL10,DYM,ENO1,FCGR2A,FKBP5,GBP2,GNLY,GRP,GZMA,HCK,HCLS1,ICOS,ITPR3,LTF,MICA,MS4A1,PPP1R7,PTPRC,RALGDS,RPS24,SDC1,SND1,SORL1,SPTA1,TYMS,VIP	33
Inflammatory Disease	sinusitis	5.26E-03	ADRA1B,ADRA1D,VIP	3
Inflammatory Disease	seasonal allergic rhinitis	6.28E-03	ADRA1B,ADRA1D,HTR2B	3
Inflammatory Disease	ulcerative colitis	1.82E-02	ALOX5,CD3D,IL23A,MS4A1,XBP1	5
Inflammatory Disease	familial acne inversa type 3	2.28E-02	PSEN1	1

Supplementary Table 6. Top 20 Curated genesets (C2-MSigDB) from GSEA ranked by normalised enrichment score (NES) for Affymetrix & non-Affymetrix platform datasets

RUV-4 results for all Affymetrix platform cohorts					
<i>Asian</i>					
NAME	ES	NES	NOM p-value	FDR q-value	Significant (Y/N)
SMID_BREAST_CANCER_LUMINAL_A_UP	0.67	2.02	0.00	0.00	Y
NAKAYAMA_SOFT_TISSUE_TUMORS_PCA2_DN	0.66	1.99	0.00	0.00	Y
GEORGANTAS_HSC_MARKERS	0.66	1.88	0.00	0.04	Y
YAMASHITA_METHYLATED_IN_PROSTATE_CANCER	0.69	1.88	0.00	0.03	Y
UZONYI_RESPONSE_TO_LEUKOTRIENE_AND_THROMBIN	0.71	1.88	0.00	0.02	Y
BOQUEST_STEM_CELL_UP	0.53	1.86	0.00	0.03	Y
PETRETTO_CARDIAC_HYPERTROPHY	0.70	1.85	0.00	0.03	Y
KEGG_PPAR_SIGNALING_PATHWAY	0.64	1.82	0.00	0.04	Y
BERTUCCI_INVASIVE_CARCINOMA_DUCTAL_VS_LOBULAR_DN	0.68	1.82	0.00	0.04	Y
URS_ADIPOCYTE_DIFFERENTIATION_UP	0.61	1.80	0.00	0.05	Y
CHEN_LVAD_SUPPORT_OF_FAILING_HEART_DN	0.64	1.78	0.00	0.06	Y
SCHLESINGER_METHYLATED_DE_NOVO_IN_CANCER	0.58	1.78	0.00	0.06	Y
AMIT_SERUM_RESPONSE_60_MCF10A	0.61	1.77	0.00	0.07	Y
KEGG_SYSTEMIC_LUPUS_ERYTHEMATOSUS	0.55	1.69	0.00	0.16	Y
BOQUEST_STEM_CELL_DN	0.50	1.68	0.00	0.16	Y
CUL_TCF21_TARGETS_2_DN	0.47	1.68	0.00	0.15	Y
HOELZEL_NF1_TARGETS_DN	0.59	1.66	0.00	0.18	Y
SHETH_LIVER_CANCER_VS_TXNIP_LOSS_PAM2	0.50	1.59	0.00	0.28	N
LU_AGING_BRAIN_UP	0.46	1.57	0.00	0.29	N
SCHAEFFER_PROSTATE_DEVELOPMENT_6HR_UP	0.48	1.55	0.00	0.32	N

Non-Asian

NAME	ES	NES	NOM p-value	FDR q-value	Significant (Y/N)
RICKMAN_HEAD_AND_NECK_CANCER_D	-0.75	-2.51	0.00	0.00	Y
FLECHNER_BIOPSY_KIDNEY_TRANSPLANT_REJECTED_VS_OK_UP	-0.50	-2.19	0.00	0.03	Y
CROMER_TUMORIGENESIS_DN	-0.60	-2.07	0.00	0.07	Y
SMID_BREAST_CANCER_RELAPSE_IN_BONE_UP	-0.52	-2.04	0.00	0.08	Y
HAHTOLA_SEZARY_SYNDROM_DN	-0.61	-1.99	0.00	0.10	Y
ENGELMANN_CANCER_PROGENITORS_DN	-0.56	-1.99	0.00	0.09	Y
SENGUPTA_NASOPHARYNGEAL_CARCINOMA_DN	-0.43	-1.96	0.00	0.10	Y
BOSCO_EPITHELIAL_DIFFERENTIATION_MODULE	-0.57	-1.94	0.00	0.10	Y
STOSSI_RESPONSE_TO ESTRADIOL	-0.46	-1.86	0.00	0.16	Y
KLEIN_TARGETS_OF_BCR_ABL1_FUSION	-0.49	-1.78	0.00	0.22	Y
LIEN_BREAST_CARCINOMA_METAPLASTIC_VS_DUCTAL_DN	-0.44	-1.74	0.00	0.25	Y
SHETH_LIVER_CANCER_VS_TXNIP_LOSS_PAM3	-0.44	-1.73	0.00	0.25	Y
MEISSNER_BRAIN_HCP_WITH_H3K4ME2_AND_H3K27ME3	-0.52	-1.71	0.00	0.27	N
HUPER_BREAST_BASAL_VS_LUMINAL_UP	-0.43	-1.70	0.00	0.28	N
BHAT_ESR1_TARGETS_VIA_AKT1_UP	-0.31	-1.51	0.00	0.49	N
JAEGER_METASTASIS_DN	-0.30	-1.49	0.00	0.47	N
LI_AMPLIFIED_IN_LUNG_CANCER	-0.32	-1.49	0.00	0.47	N
CHARAFE_BREAST_CANCER_LUMINAL_VS_MESENCHYMAL_UP	-0.30	-1.49	0.00	0.45	N
REACTOME_S_PHASE	-0.34	-1.47	0.00	0.46	N
MATTIOLI_MGUS_VS_PCL	-0.35	-1.43	0.00	0.50	N

Supplementary Table 6. Top 20 Curated genesets (C2-MSigDB) from GSEA ranked by normalised enrichment score (NES) for Affymetrix & non-Affymetrix platform datasets

RUV-4 results for all non-Affymetrix platform cohorts					
<i>Asian</i>					
NAME	ES*	NES**	NOM p-value***	FDR q-value****	Significant (Y/N)*****
CROMER_TUMORIGENESIS_UP	0.69	2.18	0.00	0.00	Y
HUPER_BREAST_BASAL_VS_LUMINAL_UP	0.62	1.98	0.00	0.06	Y
HUMMERICH_SKIN_CANCER_PROGRESSION_UP	0.56	1.95	0.00	0.08	Y
WINZEN_DEGRADED_VIA_KHSRP	0.58	1.94	0.00	0.07	Y
ZHAN_MULTIPLE_MYELOMA_CD1_DN	0.69	1.92	0.00	0.07	Y
HOWLIN_PUBERTAL_MAMMARY_GLAND	0.62	1.91	0.00	0.07	Y
NIELSEN_GIST_AND_SYNOVIAL_SARCOMA_DN	0.70	1.88	0.00	0.11	Y
CHIBA_RESPONSE_TO_TSA_UP	0.57	1.86	0.00	0.11	Y
JAEGER_METASTASIS_DN	0.47	1.86	0.00	0.10	Y
KONDO_PROSTATE_CANCER_HCP_WITH_H3K27ME3	0.63	1.86	0.00	0.09	Y
COLDREN_GEFITINIB_RESISTANCE_DN	0.49	1.86	0.00	0.09	Y
BOSCO_EPITHELIAL_DIFFERENTIATION_MODULE	0.62	1.86	0.00	0.08	Y
ONDER_CDH1_TARGETS_2_DN	0.43	1.83	0.00	0.11	Y
KIM_GLIS2_TARGETS_UP	0.53	1.82	0.00	0.12	Y
HECKER_IFNB1_TARGETS	0.55	1.82	0.00	0.11	Y
KRASNOSELSKAYA_ILF3_TARGETS_UP	0.62	1.80	0.00	0.13	Y
SENGUPTA_NASOPHARYNGEAL_CARCINOMA_DN	0.45	1.71	0.00	0.22	Y
KIM_BIPOLAR_DISORDER_OLIGODENDROCYTE_DENSITY_CORR_DN	0.55	1.70	0.00	0.22	Y
VART_KSHV_INFECTION_ANGIOGENIC_MARKERS_UP	0.43	1.68	0.00	0.25	Y
NAGASHIMA_NRG1_SIGNALING_UP	0.43	1.64	0.00	0.30	N

Non-Asian

NAME	ES	NES	NOM p-value	FDR q-value	Significant (Y/N)
SHAFFER_IRF4_TARGETS_IN_ACTIVATED_DENDRITIC_CELL	-0.61	-2.17	0.00	0.07	Y
DIRMEIER_LMP1_RESPONSE_LATE_DN	-0.65	-2.04	0.00	0.14	Y
PID_FOXM1PATHWAY	-0.53	-1.88	0.00	0.46	N
LEE_DIFFERENTIATING_T_LYMPHOCYTE	-0.38	-1.79	0.00	0.76	N
REACTOME_G2_M_CHECKPOINTS	-0.58	-1.78	0.01	0.66	N
SCHLOSSER_SERUM_RESPONSE_UP	-0.39	-1.70	0.00	0.57	N
ZHAN_VARIABLE_EARLY_DIFFERENTIATION_GENES_DN	-0.53	-1.69	0.01	0.55	N
REACTOME_MITOTIC_G1_G1_S_PHASES	-0.38	-1.69	0.00	0.50	N
SHEDDEN_LUNG_CANCER_GOOD_SURVIVAL_A12	-0.35	-1.68	0.00	0.49	N
HSIAO_LIVER_SPECIFIC_GENES	-0.35	-1.68	0.01	0.46	N
CARD_MIR302A_TARGETS	-0.43	-1.64	0.01	0.45	N
GRADE_COLON_AND_RECTAL_CANCER_DN	-0.43	-1.63	0.00	0.45	N
PEART_HDAC_PROLIFERATION_CLUSTER_DN	-0.39	-1.62	0.00	0.44	N
WONG_PROTEASOME_GENE_MODULE	-0.43	-1.52	0.01	0.53	N
HSIAO_HOUSEKEEPING_GENES	-0.29	-1.50	0.01	0.52	N
PUJANA_BRCA2_PCC_NETWORK	-0.27	-1.42	0.00	0.60	N
GRADE_COLON_AND_RECTAL_CANCER_UP	-0.29	-1.40	0.00	0.62	N
TARTE_PLASMA_CELL_VS_PLASMABLAST_DN	-0.27	-1.38	0.01	0.65	N
WANG_RESPONSE_TO_GSK3_INHIBITOR_SB216763_DN	-0.28	-1.37	0.01	0.65	N
CAIRO_HEPATOBLASTOMA_CLASSES_UP	-0.25	-1.35	0.00	0.68	N

Supplementary Table 7. Top 20 Immunological genesets (C7-MSigDB) from GSEA on RUV-4 results for all Affymetrix platform cohorts ranked by normalised enrichment score (NES)

<i>Asian</i>						
NAME	ES	NES	NOM p-value	FDR q-value	Significant (Y/N)	
GSE30083_SP3_VS_SP4_THYMOCYTE_UP	0.54	1.70	0.00	0.37	N	
GSE9988_ANTI_TREM1_VS_CTRL_TREATED_MONOCYTES_UP	0.52	1.69	0.00	0.25	Y	
GSE3982_DC_VS_CENT_MEMORY_CD4_TCELL_UP	0.51	1.69	0.00	0.17	Y	
GSE9988_LPS_VS_LPS_AND_ANTI_TREM1_MONOCYTE_DN	0.52	1.68	0.00	0.15	Y	
GSE9006_HEALTHY_VS_TYPE_1_DIABETES_PBMC_AT_DX_DN	0.51	1.68	0.00	0.13	Y	
GSE3982_DC_VS_TH2_UP	0.50	1.65	0.00	0.18	Y	
GSE7852_TREG_VS_TCONV_THYMUS_DN	0.51	1.64	0.00	0.19	Y	
GSE20715_WT_VS_TLR4_KO_LUNG_UP	0.50	1.63	0.00	0.17	Y	
GSE9006_HEALTHY_VS_TYPE_2_DIABETES_PBMC_AT_DX_DN	0.49	1.62	0.00	0.22	Y	
GSE24634_NAIVE_CD4_TCELL_VS_DAY3_IL4_CONV_TREG_UP	0.48	1.58	0.00	0.31	N	
GSE15930_STIM_VS_STIM_AND_IFNAB_72H_CD8_T_CELL_UP	0.49	1.58	0.00	0.29	N	
GSE9988_ANTI_TREM1_VS_VEHICLE_TREATED_MONOCYTES_UP	0.49	1.58	0.00	0.28	N	
GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN3_THYMOCYTE_FETAL_UP	0.48	1.55	0.00	0.37	N	
GSE17721_CPG_VS_GARDIQUIMOD_2H_BMDM_DN	0.48	1.55	0.00	0.37	N	
GSE1460_INTRATHYMIC_T_PROGENITOR_VS_THYMIC_STROMAL_CELL_DN	0.46	1.54	0.00	0.38	N	
GSE27786_BCELL_VS_NKCELL_DN	0.47	1.53	0.00	0.39	N	
GSE32423_MEMORY_VS_NAIVE_CD8_TCELL_IL7_UP	0.48	1.52	0.00	0.39	N	
GSE24634_TREG_VS_TCONV_POST_DAY10_IL4_CONVERSION_DN	0.45	1.49	0.00	0.39	N	
GSE3982_DC_VS_BCELL_UP	0.45	1.49	0.00	0.38	N	
GSE29618_MONOCYTE_VS_MDC_UP	0.45	1.49	0.00	0.37	N	

Non-Asian

NAME	ES	NES	NOM p-value	FDR q-value	Significant (Y/N)
GSE22886_NAIVE_CD4_TCELL_VS_MONOCYTE_UP	-0.38	-1.64	0.01	0.52	N
GSE22886_NAIVE_CD8_TCELL_VS_MONOCYTE_UP	-0.35	-1.55	0.02	0.60	N
GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN2_THYMOCYTE_FETAL_DN	-0.34	-1.46	0.03	0.85	N
GSE17974_IL4_AND_ANTI_IL12_VS_UNTREATED_72H_ACT_CD4_TCELL_UP	-0.34	-1.45	0.05	0.69	N
GSE29614_CTRL_VS_DAY3_TIV_FLU_VACCINE_PBMC_UP	-0.37	-1.43	0.05	0.66	N
GSE9006_TYPE_1_VS_TYPE_2_DIABETES_PBMC_AT_DX_UP	-0.30	-1.42	0.00	0.62	N
GSE22886_IGG_IGA_MEMORY_BCELL_VS_BM_PLASMA_CELL_UP	-0.31	-1.41	0.02	0.58	N
GSE10325_BCELL_VS_MYELOID_UP	-0.31	-1.40	0.00	0.52	N
GSE39820_TGFBETA1_VS_TGFBETA3_IN_IL6_IL23A_TREATED_CD4_TCELL_D N	-0.32	-1.39	0.05	0.49	N
GSE3982_MAC_VS_TH2_DN	-0.30	-1.39	0.00	0.46	N
GSE17974_CTRL_VS_ACT_IL4_AND_ANTI_IL12_0.5H_CD4_TCELL_UP	-0.34	-1.37	0.06	0.48	N
GSE22886_TCELL_VS_BCELL_NAIVE_UP	-0.29	-1.34	0.00	0.55	N
GSE9006_1MONTH_VS_4MONTH_POST_TYPE_1_DIABETES_DX_PBMC_DN	-0.30	-1.32	0.06	0.62	N
GSE8515_IL1_VS_IL6_4H_STIM)MAC_DN	-0.29	-1.30	0.05	0.64	N
GSE22886_NAIVE_TCELL_VS_MONOCYTE_UP	-0.30	-1.30	0.09	0.61	N
GSE12366_NAIVE_VS_MEMORY_BCELL_UP	-0.30	-1.26	0.12	0.80	N
GSE17721_LPS_VS_POLYIC_0.5H_BMDM_UP	-0.27	-1.25	0.04	0.78	N
GSE3982_EFF_MEMORY_VS_CENT_MEMORY_CD4_TCELL_UP	-0.28	-1.25	0.09	0.77	N
GSE10325_CD4_TCELL_VS_MYELOID_UP	-0.26	-1.20	0.11	0.96	N
GSE1460_CD4_THYMOCYTE_VS_NAIVE_CD4_TCELL_ADULT_BLOOD_DN	-0.26	-1.19	0.11	0.96	N

Supplementary Table 8. MSigDB C7 T-cell signature genesets enriched in Stage-1 meta-analysis

MSigDB.geneset.name	web.path
GSE1460_INTRATHYMIC_T_PROGENITOR_VS_THYMIC_STROMAL_CELL_DN	http://www.broadinstitute.org/gsea/msigdb/cards/GSE1460_INTRATHYMIC_T_PROGENITOR_VS_THYMIC_STROMAL_CELL_DN
GSE3982_MAC_VS_TH2_DN	http://www.broadinstitute.org/gsea/msigdb/cards/GSE3982_MAC_VS_TH2_DN
GSE22886_TCELL_VS_BCELL_NAIVE_UP	http://www.broadinstitute.org/gsea/msigdb/cards/GSE22886_TCELL_VS_BCELL_NAIVE_UP
GSE24634_NAIVE_CD4_TCELL_VS_DAY3_IL4_CONV_TREG_UP	http://www.broadinstitute.org/gsea/msigdb/cards/GSE24634_NAIVE_CD4_TCELL_VS_DAY3_IL4_CONV_TREG_UP
GSE22886_NAIVE_CD8_TCELL_VS_MONOCYTE_UP	http://www.broadinstitute.org/gsea/msigdb/cards/GSE22886_NAIVE_CD8_TCELL_VS_MONOCYTE_UP
GSE22886_NAIVE_CD4_TCELL_VS_MONOCYTE_UP	http://www.broadinstitute.org/gsea/msigdb/cards/GSE22886_NAIVE_CD4_TCELL_VS_MONOCYTE_UP
GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN2_THYMOCYTE_FETAL_DN	http://www.broadinstitute.org/gsea/msigdb/cards/GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN2_THYMOCYTE_FETAL_DN
GSE17974_IL4_AND_ANTI_IL12_VS_UNTREATED_72H_ACT_CD4_TCELL_UP	http://www.broadinstitute.org/gsea/msigdb/cards/GSE17974_IL4_AND_ANTI_IL12_VS_UNTREATED_72H_ACT_CD4_TCELL_UP
GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN3_THYMOCYTE_FETAL_UP	http://www.broadinstitute.org/gsea/msigdb/cards/GSE24142_EARLY_THYMIC_PROGENITOR_VS_DN3_THYMOCYTE_FETAL_UP

Supplementary Table 9. Clinical characteristics of immunohistochemistry study cohorts

Total n = 665	Japanese (n = 219)	Caucasian (n = 446)	P-value^{†††}
Age (years)			
Range	36.0 - 85.0	13.5 - 96.0 (1 missing)	
mean ± standard deviation	63.7 ± 10.7	67.3 ± 12.7	< 0.001 ^α
Gender (percent)			
Female	61 (27.9)	171 (38.3)	< 0.001 ^β
Male	158 (72.1)	275 (61.7)	< 0.001 ^β
Stage[‡] (percent)			
I	1 (0.46)	89 (20.0)	< 0.001 ^β
II	80 (36.5)	113 (25.3)	< 0.001 ^β
III	126 (57.5)	229 (51.3)	0.08 ^β
IV	12 (5.48)	15 (3.36)	0.12 ^β
Lauren's classification (percent)			
Intestinal	78 (35.6)	266 (59.6)	< 0.001 ^{β*}
Diffuse	128 (58.4)	123 (27.6)	< 0.001 ^{β*}
Mixed/ unclassifiable	12 (5.48)	56 (12.6)	< 0.001 ^{β*}
Missing	1 (0.46)	1 (0.22)	
Treatment (percent)			
Surgery only	92 (42.0)	440 (98.7)	< 0.001 ^β
Surgery + chemotherapy	127 [†] (58.0)	6 (1.35)	< 0.001 ^β
Tumour location (percent)			
Upper third	66 (30.1)	117 (26.2)	0.93 ^{β*}
Middle third	89 (40.6)	75 (16.8)	< 0.001 ^{β*}
Lower third	64 (29.2)	190 (42.6)	< 0.001 ^{β*}
Missing	-	64 (14.3)	
Tumour differentiation (percent)			
Well differentiated (G1)	21 (9.59)	53 (11.9)	0.33 ^{β*}
Moderately differentiated (G2)	82 (37.4)	117 (26.2)	< 0.001 ^{β*}
Poorly differentiated (G3)	115 (52.5)	271 (60.8)	0.01 ^{β*}
Missing	1 (0.46)	5 (1.12)	
Epstein Barr Virus status (percent)			
Positive	12 (5.48)	15 (3.36)	0.13 ^{β*}
Negative	204 (93.2)	422 (94.6)	0.13 ^{β*}
Missing	3 (1.37)	9 (2.02)	0.65 ^{β*}
Mismatch Repair status^Δ (percent)			
Proficient	195 (89.0)	162 (36.3)	0.25 ^β
Deficient	21 (9.59)	13 (2.91)	0.25 ^β
Year of surgery range (median)	2001-2010 (2005)	1970-2004 (1996)	< 0.001 < 2 x 10 ^{-16γ}
Median overall survival^{††} (months)	38.7	22.7 (21 missing)	2 x 10 ^{-05γ*}
Number of overall death events	78	312 (22 missing)	2 x 10 ^{-04α*}

[‡]American Joint Committee on Cancer (AJCC) staging 7th edition

[†]5FU-related chemotherapy

^{†††}P-value from hypothesis testing between Japanese and Caucasian cohorts

[‡]t-test

^{αβ} or Chi-square proportion test

^β or ^γWilcoxon rank sum test^γ employed.

^{*}Excluding missing values

^Δ Not performed in all cases; results from previous report of MMR status {van Grieken, 2013 #166}

^{††}Defined as time from surgery to last follow-up

Supplementary Table 10. Assessment of immune markers between Caucasian (total n = 446) and Japanese cohorts (total n = 219)

Marker	Caucasian			Japanese			p-value [‡]	trend
	unadj. mean ± s.d. (adj. mean ± s.d. [†])	unadj. median (adj. median [†])	n per marker	unadj. mean ± s.d. (adj. mean ± s.d. [†])	unadj. median (adj. median [†])	n per marker		
CD45	37.3 ± 23.7 (20.8 ± 65.3)	37.3 (0.82)	351	46.4 ± 16.8 (1.52 ± 1.30)	47.0 (1.20)	219	2 x 10 ⁻⁰³	↑Japanese
CD45RO	34.9 ± 20.8 (13.9 ± 36.9)	30.4 (0.90)	345	19.8 ± 11.6 (0.60 ± 0.60)	19.0 (0.47)	219	9 x 10 ⁻¹⁵	↑Caucasian
CD3	10.3 ± 9.44 (2.42 ± 15.3)	7.82 (0.22)	197	6.68 ± 5.15 (0.21 ± 0.25)	5.72 (0.13)	219	4 x 10 ⁻⁰⁶	↑Caucasian
CD8	18.8 ± 15.4 (6.54 ± 24.5)	14.6 (0.38)	269	9.59 ± 7.26 (0.31 ± 0.30)	7.96 (0.21)	219	6 x 10 ⁻⁰⁷	↑Caucasian
FOXP3	7.08 ± 11.2 (2.24 ± 6.76)	2.15 (0.03)	250	7.79 ± 10.7 (0.24 ± 0.32)	5.57 (0.14)	219	6 x 10 ⁻⁰⁸	↑Japanese
CD68	9.29 ± 5.64 (1.53 ± 7.04)	8.55 (0.24)	197	7.46 ± 4.14 (0.22 ± 0.17)	6.48 (0.17)	219	4 x 10 ⁻⁰⁴	↑Caucasian
CD66b	4.93 ± 6.96 (0.51 ± 2.11)	2.55 (0.09)	197	8.49 ± 8.56 (0.26 ± 0.34)	5.33 (0.15)	219	2 x 10 ⁻⁰⁵	↑Japanese

[†]data adjusted for tumour content using CK staining values

[‡]2-sided p-value from Wilcoxon Mann-Whitney test for adjusted median

Supplementary Table 11. Generalized linear model of Overall survival time against CD68/CD3 ratio and covariates significantly associated with survival

Variable	Regression estimate, β	Std. error	P-value
CD68/CD3 ratio	-0.141	0.05	9×10^{-03}
UICC TNM7 stage (II vs I)	-0.241	0.14	0.09
UICC TNM7 stage (III vs I)	-0.608	0.14	2×10^{-05}
UICC TNM7 stage (IV vs I)	-1.05	0.21	7×10^{-07}
Locality (Japanese vs Caucasian)	0.621	0.12	7×10^{-07}
Chemotherapy (No vs Yes)	-0.044	0.10	0.65
EBV (Positive vs Negative)	0.385	0.15	0.01
Tumour location (Middle Third vs Upper Third)	0.077	0.09	0.37
Tumour location (Lower Third vs Upper Third)	0.055	0.08	0.51
Tumour location (Others vs Upper Third)	-0.404	0.20	0.04
Lauren's classification (Diffuse vs Intestinal)	-0.054	0.10	0.58
Lauren's classification (Mixed vs Intestinal)	-0.033	0.12	0.79
Tumour differentiation grade (G2 vs G1)	-0.058	0.12	0.62
Tumour differentiation grade (G3 vs G1)	-0.110	0.13	0.40
Age	-0.003	0.003	0.37
Year of surgery	-0.035	0.01	7×10^{-03}

negative β refers to a negative trend with overall survival e.g. higher CD68/CD3 has a trend for shorter overall survival ($\beta = -0.141$), while positive β refers to a positive trend with overall survival e.g. the Japanese cohort has a longer overall survival compared to Caucasian cohort ($\beta = 0.621$).

Supplementary Table 12. Restricted Mean Survival Time (RMST) at 1-year (12-months), 5-year (60-months) and 10-year (120-months) intervals

Dataset	Group (n)	RMST ± s.e. (12-months)	RMST ± s.e. (60-months)	RMST ± s.e. (120-months)	Renyi test p-value (p=1; q=1)	Renyi test p-value (p=0; q=1)
AMS_cDNA	CD68/CD3 low (24)	8.89 ± 0.688	24.7 ± 4.920	39.1 ± 10.09	< 1 x 10 ⁻⁰⁵	8 x 10 ⁻⁰³
	CD68/CD3 high (4)	7.89 ± 2.094	10.7 ± 3.460	10.7 ± 3.460		
SGset2	CD68/CD3 low (36)	11.8 ± 0.137	40.1 ± 3.850	72.4 ± 9.110	< 1 x 10 ⁻⁰⁵	< 1 x 10 ⁻⁰⁵
	CD68/CD3 high (3)	12.0 ± 0.000	27.8 ± 3.380	27.8 ± 3.380		
SamsungMC	CD68/CD3 low (380)	11.8 ± 0.040	48.7 ± 0.903	85.4 ± 2.310	< 1 x 10 ⁻⁰⁵	2 x 10 ⁻⁰⁵
	CD68/CD3 high (52)	11.7 ± 0.166	46.9 ± 2.689	77.1 ± 6.640		
SGset1	CD68/CD3 low (126)	10.7 ± 0.239	35.4 ± 2.120	56.2 ± 4.520	< 1 x 10 ⁻⁰⁵	2 x 10 ⁻⁰⁴
	CD68/CD3 high (14)	8.65 ± 1.080	27.9 ± 7.230	51.5 ± 15.33		
HK_cDNA	CD68/CD3 low (72)	10.4 ± 0.364	33.3 ± 2.900	55.3 ± 6.850	3 x 10 ⁻⁰⁴	0.04
	CD68/CD3 high (12)	11.2 ± 0.718	33.2 ± 6.210	48.2 ± 16.72		
YGC	CD68/CD3 low (59)	11.5 ± 0.257	45.7 ± 2.760	83.1 ± 7.270	< 1 x 10 ⁻⁰⁵	< 1 x 10 ⁻⁰⁵
	CD68/CD3 high (6)	12.0 ± 0.000	54.7 ± 4.820	104.7 ± 13.95		

Blue box: worse survival in CD68/CD3 low

Black box: worse survival in CD68/CD3 high

Supplementary Table 13. Correlation[†] of immune markers with other clinicopathologic factors

Immune marker	Stage		Age		Epstein Barr Virus status		Mismatch repair status		Tumour differentiation grade	
	r_s	P-value	r_s	P-value	r_s	P-value	r_s	P-value	r_s	P-value
CD3	0.02	0.74	-0.08	0.10	0.16	9×10^{-04}	0.13	0.02	0.26	1×10^{-07}
CD8	0.05	0.31	-0.01	0.81	0.11	0.02	0.04	0.47	0.22	10×10^{-07}
CD68	0.13	6×10^{-03}	-0.08	0.12	0.01	0.78	0.16	4×10^{-03}	0.34	2×10^{-12}
CD66b	-0.01	0.81	-0.05	0.30	0.05	0.28	-0.08	0.14	0.02	0.73
CD45R0	2×10^{-03}	0.96	-0.04	0.33	0.12	4×10^{-03}	0.03	0.63	0.11	10×10^{-03}
FOXP3	-0.04	0.38	-0.03	0.49	0.03	0.59	0.13	0.03	0.02	0.67
CD68/CD3	0.13	7×10^{-03}	-7×10^{-03}	0.89	-0.14	5×10^{-03}	0.04	0.53	0.08	0.11

[†]Spearman rank correlation with continuity correction

[‡]Positive Spearman rho relates to positive correlation (e.g. higher CD3 is positively correlated with positive EBV status), while negative Spearman rho relates to negative correlation (e.g. higher CD68/CD3 is negatively correlated with positive EBV status)

Supplementary Table 14. Clinical characteristics of original cohorts from which immunohistochemical study cohorts are derived

Total n = 1,159	Japanese (n = 253)	Caucasian (n = 906)	P-value^{†††}
Age (years)			
Range	35.0 - 85.0	13.5 - 96.0 (6 missing)	
mean ± standard deviation	63.0 ± 11.1	68.1 ± 11.7	< 0.001 ^{α*}
Gender (percent)			
Female	75 (29.6)	314 (34.7)	0.10 ^{β*}
Male	178 (70.4)	589 (65.0)	0.10 ^{β*}
Missing	-	3 (0.33)	
Stage[‡] (percent)			
1	1 (0.40)	158 (17.4)	< 0.001 ^{β*}
2	97 (38.3)	250 (27.6)	< 0.001 ^{β*}
3	141 (55.7)	464 (51.2)	0.26 ^{β*}
4	14 (5.53)	20 (2.21)	< 0.001 ^{β*}
Missing	-	14 (1.55)	
Lauren's classification (percent)			
Intestinal	84 (33.2)	532 (58.7)	< 0.001 ^{6β*}
Diffuse	156 (61.7)	212 (23.4)	< 0.001 ^{β*}
Mixed/ unclassifiable	12 (4.74)	105 (11.6)	< 0.001 ^{β*}
Missing	1 (0.40)	57 (6.29)	
Treatment (percent)			
Surgery only	110 (43.5)	844 (93.2)	< 0.001 ^β
Surgery + chemotherapy	143 [†] (56.5)	62 (6.84)	< 0.001 ^β
Median overall survival^{††} (months)			
	40.2	20.0 (39 missing)	< 0.001 ^{γ*}
Number of overall death events			
	89	640 (44 missing)	< 0.001 ^{β*}

[‡]American Joint Committee on Cancer (AJCC) staging 7th edition

[†]5FU-related chemotherapy

^{††}Defined as time from surgery to last follow-up

^{†††}P-value from hypothesis testing between Japanese and Caucasian cohorts

^α t-test

^βChi-square proportion test

^γWilcoxon rank sum test.

^{*}Excluding missing values

Supplementary Table 15. Top 20 Curated genesets (C6-MSigDB) from GSEA (before & after RUV-4) ranked by normalised enrichment score (NES)

RUV-4 results for all Affymetrix platform cohorts (before RUV4)						
<i>Asian</i>						
NAME	ES*	NES**	NOM p-value***	FDR q-value****	Significant (Y/N)*****	
VEGF_A_UP.V1_DN	0.46	1.65	0.00	0.14	Y	
PIGF_UP.V1_UP	0.44	1.59	0.00	0.17	Y	
HOXA9_DN.V1_DN	0.45	1.59	0.00	0.13	Y	
ERB2_UP.V1_DN	0.44	1.58	0.00	0.11	Y	
CRX_NRL_DN.V1_DN	0.46	1.47	0.01	0.35	N	
CAMP_UP.V1_UP	0.41	1.46	0.00	0.35	N	
TBK1.DF_DN	0.40	1.45	0.00	0.35	N	
SIRNA_EIF4GI_DN	0.43	1.40	0.04	0.50	N	
ATF2_S_UP.V1_UP	0.40	1.37	0.04	0.66	N	
PDGF_ERK_DN.V1_DN	0.40	1.36	0.03	0.66	N	
RAF_UP.V1_UP	0.38	1.35	0.04	0.67	N	
TGFB_UP.V1_DN	0.39	1.35	0.04	0.62	N	
MTOR_UP.N4.V1_UP	0.38	1.34	0.04	0.61	N	
RB_P107_DN.V1_UP	0.39	1.34	0.06	0.59	N	
EGFR_UP.V1_DN	0.38	1.34	0.04	0.55	N	
RAF_UP.V1_DN	0.38	1.32	0.04	0.60	N	
STK33_UP	0.36	1.31	0.03	0.63	N	
LTE2_UP.V1_UP	0.37	1.30	0.05	0.63	N	
GCNP_SHH_UP_LATE.V1_UP	0.37	1.29	0.08	0.65	N	
TBK1.DF_UP	0.35	1.27	0.06	0.76	N	

Non-Asian

NAME	ES	NES	NOM p-value	FDR q-value	Significant (Y/N)
KRAS.PROSTATE_UP.V1_DN	-0.34	-1.77	0.00	0.07	Y
JAK2_DN.V1_DN	-0.35	-1.66	0.00	0.07	Y
KRAS.300_UP.V1_DN	-0.29	-1.49	0.03	0.17	Y
PTEN_DN.V2_UP	-0.26	-1.38	0.00	0.27	N
CSR_EARLY_UP.V1_DN	-0.27	-1.28	0.15	0.42	N
EIF4E_DN	-0.26	-1.27	0.04	0.38	N
RELA_DN.V1_DN	-0.24	-1.27	0.16	0.33	N
CTIP_DN.V1_DN	-0.27	-1.24	0.17	0.36	N
CAHOY_OLIGODENDROCUTIC	-0.27	-1.19	0.21	0.43	N
PKCA_DN.V1_UP	-0.20	-1.04	0.42	0.91	N
E2F3_UP.V1_DN	-0.21	-1.02	0.40	0.93	N
KRAS.AMP.LUNG_UP.V1_UP	-0.23	-1.01	0.38	0.89	N
IL21_UP.V1_DN	-0.20	-0.97	0.62	0.99	N
KRAS.600_UP.V1_DN	-0.18	-0.92	0.67	1.00	N
KRAS.LUNG.BREAST_UP.V1_DN	-0.18	-0.89	0.59	1.00	N
DCA_UP.V1_DN	-0.16	-0.84	0.78	1.00	N
KRAS.BREAST_UP.V1_DN	-0.17	-0.79	0.82	1.00	N
KRAS.PROSTATE_UP.V1_UP	-0.16	-0.78	0.87	1.00	N
ALK_DN.V1_UP	-0.15	-0.77	0.81	1.00	N
KRAS.600.LUNG.BREAST_UP.V1_DN	-0.13	-0.75	0.93	0.98	N

Supplementary Table 15. Top 20 Curated genesets (C6-MSigDB) from GSEA (before & after RUV-4) ranked by normalised enrichment score (NES)

RUV-4 results for all Affymetrix platform cohorts (after RUV4)						
<i>Asian</i>						
NAME	ES*	NES**	NOM p-value***	FDR q-value****	Significant (Y/N)*****	
STK33_UP	0.51	1.72	0.00	0.04	Y	
SNF5_DN.V1_DN	0.50	1.59	0.00	0.19	Y	
STK33_SKM_UP	0.47	1.57	0.00	0.19	Y	
BRCA1_DN.V1_UP	0.55	1.56	0.02	0.16	Y	
STK33_NOMO_UP	0.45	1.52	0.01	0.24	Y	
LTE2_UP.V1_DN	0.45	1.49	0.00	0.27	N	
VEGF_A_UP.V1_DN	0.45	1.48	0.01	0.26	N	
PIGF_UP.V1_DN	0.45	1.46	0.01	0.30	N	
CTIP_DN.V1_UP	0.50	1.45	0.04	0.33	N	
CRX_DN.V1_DN	0.47	1.43	0.04	0.34	N	
P53_DN.V1_DN	0.43	1.43	0.01	0.33	N	
LEF1_UP.V1_UP	0.43	1.42	0.02	0.33	N	
CRX_NRL_DN.V1_DN	0.47	1.40	0.05	0.38	N	
TBK1.DF_DN	0.40	1.35	0.03	0.55	N	
MTOR_UP.N4.V1_DN	0.43	1.35	0.06	0.52	N	
E2F1_UP.V1_DN	0.41	1.34	0.05	0.50	N	
TGFB_UP.V1_UP	0.42	1.34	0.05	0.47	N	
PIGF_UP.V1_UP	0.40	1.34	0.04	0.48	N	
EGFR_UP.V1_UP	0.40	1.33	0.05	0.49	N	
MEK_UP.V1_DN	0.40	1.30	0.06	0.54	N	

Non-Asian

NAME	ES	NES	NOM p-value	FDR q-value	Significant (Y/N)
KRAS.PROSTATE_UP.V1_DN	-0.47	-1.96	0.00	0.03	Y
KRAS.300_UP.V1_DN	-0.45	-1.87	0.00	0.03	Y
KRAS.600_UP.V1_DN	-0.37	-1.73	0.00	0.05	Y
RAF_UP.V1_DN	-0.33	-1.52	0.00	0.17	Y
KRAS.600.LUNG.BREAST_UP.V1_DN	-0.32	-1.48	0.00	0.18	Y
STK33_SKM_DN	-0.31	-1.43	0.00	0.19	Y
BCAT_BILD_ET_AL_UP	-0.43	-1.42	0.08	0.19	Y
STK33_DN	-0.31	-1.41	0.05	0.17	Y
RELA_DN.V1_DN	-0.34	-1.38	0.06	0.19	Y
ESC_J1_UP_EARLY.V1_UP	-0.33	-1.37	0.05	0.18	Y
IL15_UP.V1_DN	-0.33	-1.31	0.11	0.24	Y
KRAS.LUNG_UP.V1_DN	-0.31	-1.31	0.10	0.22	Y
KRAS.BREAST_UP.V1_UP	-0.33	-1.30	0.10	0.21	Y
LEF1_UP.V1_DN	-0.28	-1.27	0.10	0.23	Y
PTEN_DN.V2_UP	-0.29	-1.24	0.10	0.26	N
CAHOY_NEURONAL	-0.32	-1.17	0.24	0.38	N
KRAS.LUNG.BREAST_UP.V1_DN	-0.28	-1.14	0.18	0.43	N
KRAS.LUNG.BREAST_UP.V1_UP	-0.27	-1.12	0.22	0.45	N
BCAT_GDS748_UP	-0.31	-1.12	0.30	0.44	N
KRAS.300_UP.V1_UP	-0.25	-1.06	0.32	0.53	N

Supplementary Table 16. Assessment of Ki-67 marker between Caucasian and Japanese cohorts

Marker	Caucasian		Japanese		p-value [‡]	trend
	mean ± s.d. [†]	median [†]	mean ± s.d. [†]	median [†]		
Ki67	4.75 ± 25.9	0.628	0.858 ± 0.726	0.565	8.27E-01	↑Caucasian

[†]data adjusted for tumour content using CK staining values

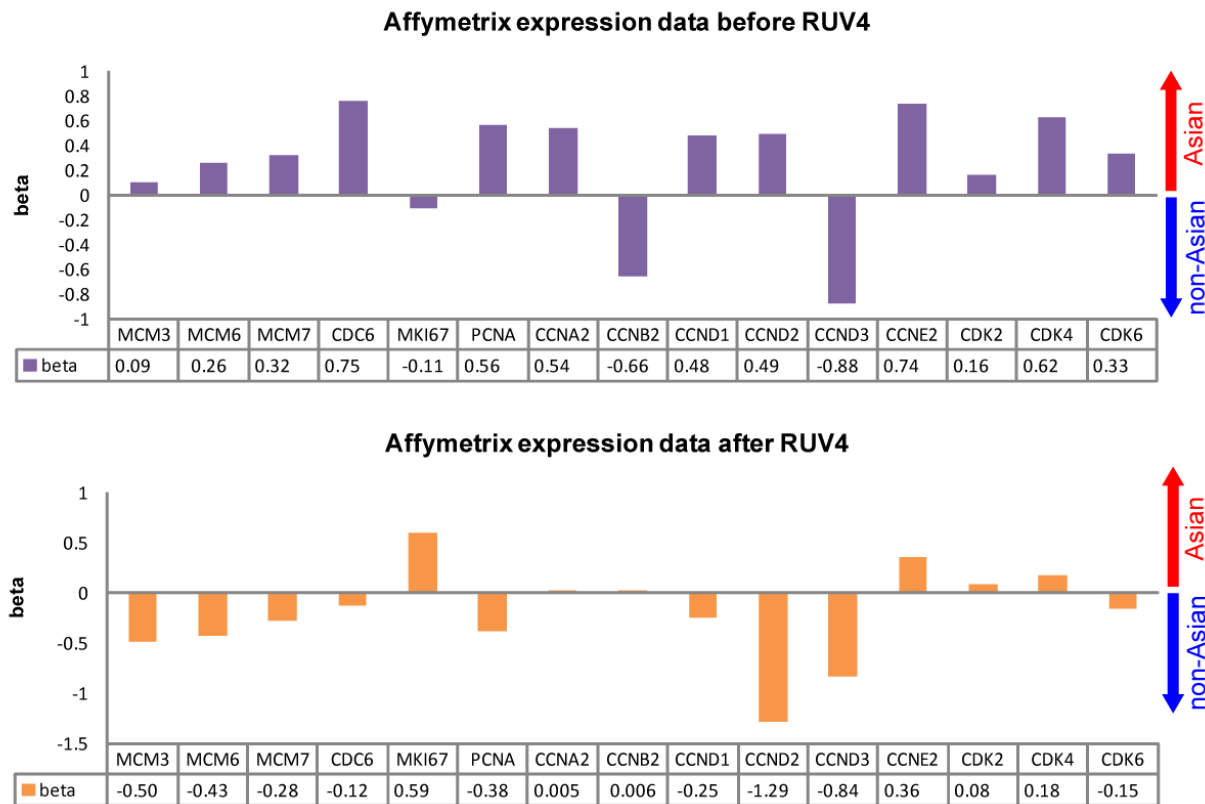
[‡]2-sided p-value from Wilcoxon Mann-Whitney test

Supplementary Figure 1. Tabular diagram of log fold-change of gene expression before and after RUV-4 adjustment on Affymetrix data. Genes in diagram selected based on those found to be up- / down- regulated in Eastern versus Western gastric tumours in a previous publication[11]. In general, genes known to be up-regulated in Asian compared to non-Asian gastric tumours (pink) are more consistently up-regulated after RUV-4, in comparison to the values obtained prior to RUV4-adjustment. The same can also be said of genes known to be up-regulated in non-Asian compared to Asian gastric tumours (green).

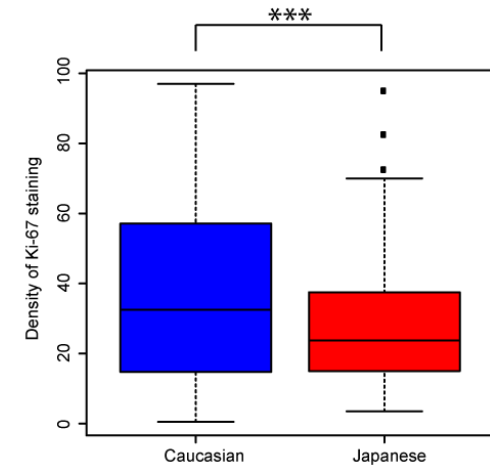
Category	genes	original analysis			
		unadjusted		RUV-4 adjusted Affymetrix data, k=125	
		log.FC (Asian vs non.Asian)	p.value	log.FC (Asian vs non.Asian)	p.value
Up.East	PDGFRA	-0.44	4×10^{-12}	0.16	0.20
Up.East	ADH1C	0.004	0.99	1.64	0.006
Up.East	ADH4	-0.69	4×10^{-09}	-0.07	0.85
Up.West	KRT10	1.16	3×10^{-57}	0.70	3×10^{-04}
Up.West	KRT13	-0.52	6×10^{-04}	-1.59	5×10^{-04}
Up.West	KRT14	-0.26	0.04	-1.05	7×10^{-04}
Up.West	KRT15	0.29	0.05	-1.23	0.002
Up.West	KRT16	0.31	0.01	-1.05	0.003
Up.West	KRT19	-0.05	0.69	-1.07	5×10^{-05}
Up.West	KRT20	-0.30	0.40	-2.42	2×10^{-04}

Supplementary Figure 2. (A) Regression coefficients showing up-regulated (positive beta) and down-regulated (negative beta) proliferative genes in Affymetrix-based studies prior (purple, top diagram) and after (orange, bottom diagram) RUV-4 adjustment. As shown, before RUV-4 most of the proliferative genes are up-regulated in Asian (red arrow) compared to non-Asian (blue arrow) gastric tumours; the trend is reversed after RUV-4 adjustment. **(B)** Box-plots of proliferative marker (Ki-67) immunohistochemical assessments in Caucasian (blue) versus Japanese (red) cohorts. Caucasian gastric tumours have significantly higher proliferation (as measured by Ki-67 levels) compared to tumours of the Japanese cohort. *** indicates a significant (Wilcoxon Mann-Whitney test $p < 0.05$) difference in composition.

A

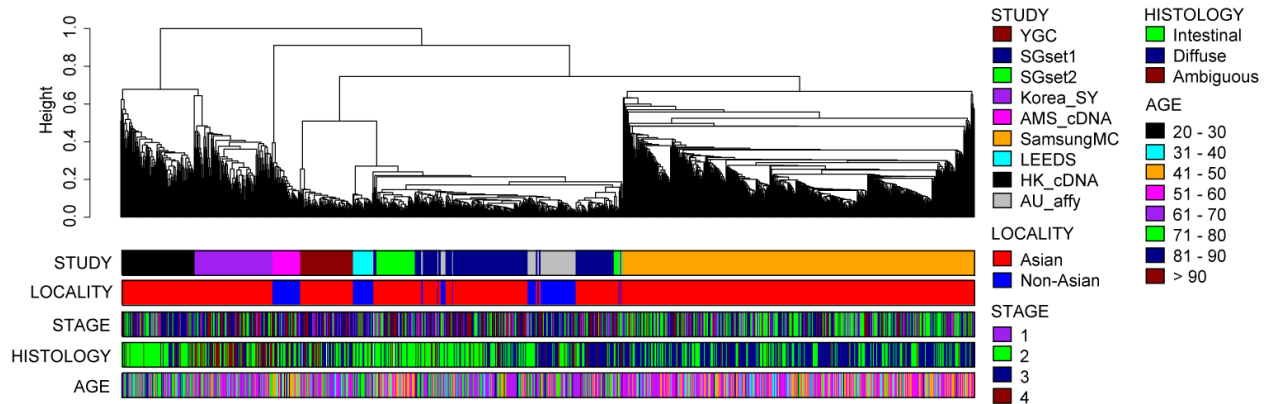


B

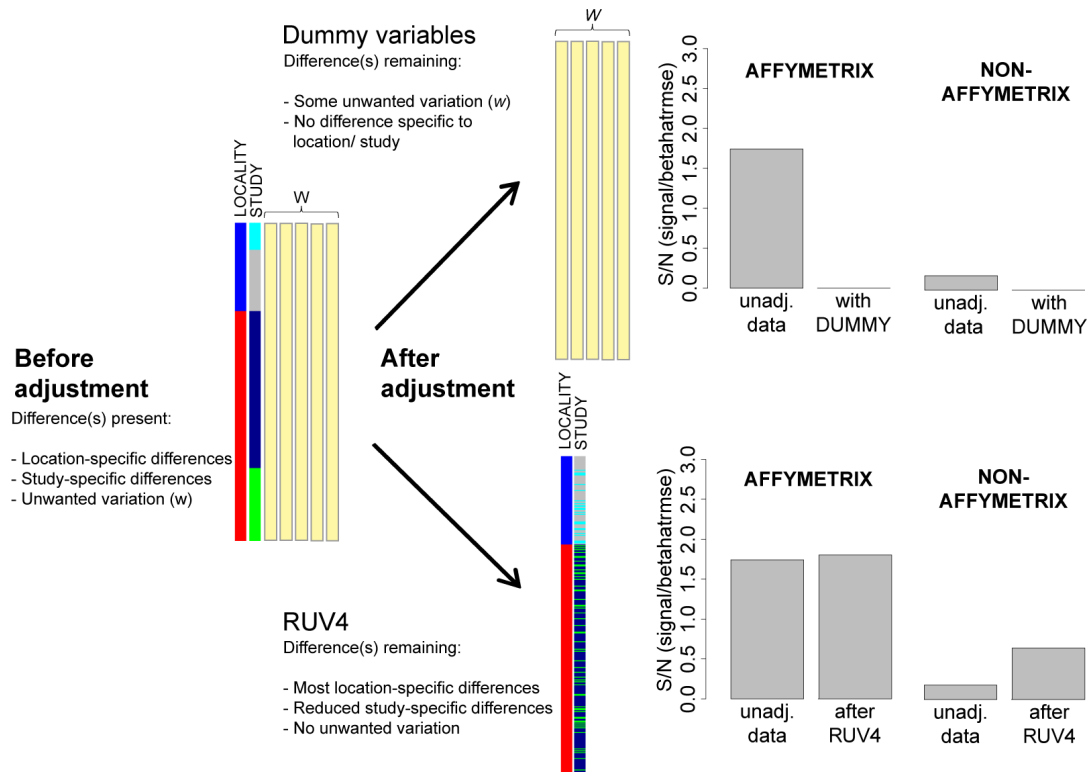


Supplementary Figure 3. (A) Hierarchical clustering of sample expression profiles before adjustment for unwanted variation; as indicated by the coloured stacked bars under the dendrogram, they segregate mainly by “study”, but not by “locality”, “stage”, “histology” and “age”. A certain level of confounding can be seen between “study” and “locality” since they tended to cluster in a similar manner **(B)** To illustrate the effectiveness of *RUV-4* for cohort adjustment compared to *standard regression with dummy variables*, using simulations to assess signal-to-noise ratios before and after adjustment. Adjustment using *standard dummy variable regression* removes not only variation due to cohorts but also location-specific effects, thus leaving behind only unknown and unwanted variation (i.e. w) in the data. In contrast, by applying *RUV-4*, we are able to reduce the impact of unwanted variation between (and within) cohorts while preserving locality-specific variation, and retaining high signal-to-noise ratio without over-adjustment.

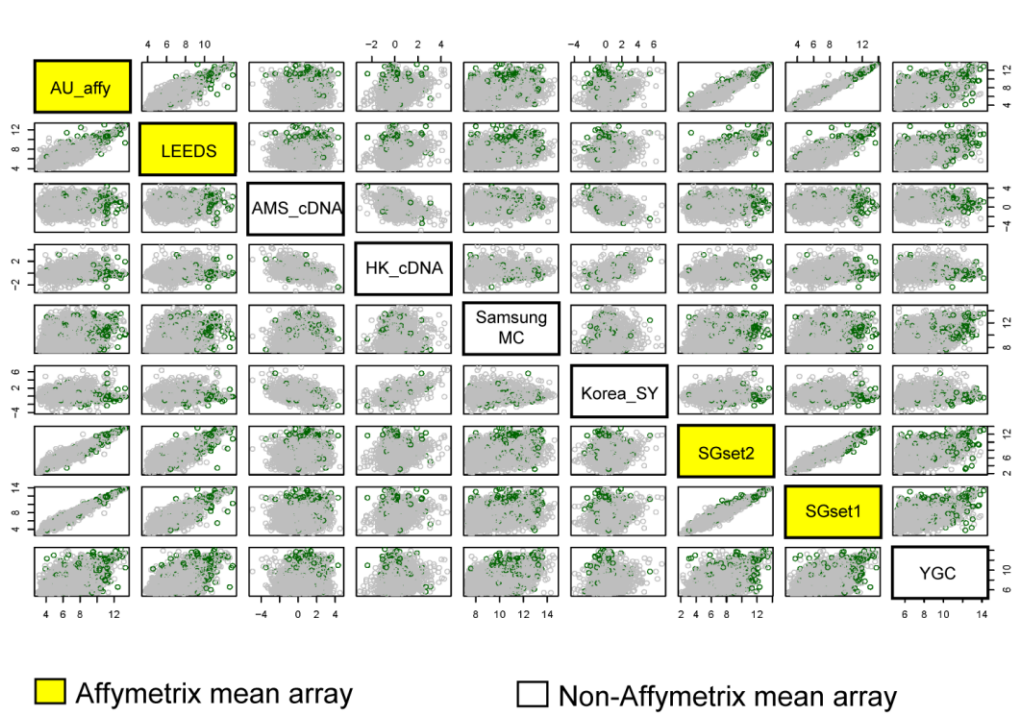
(A)



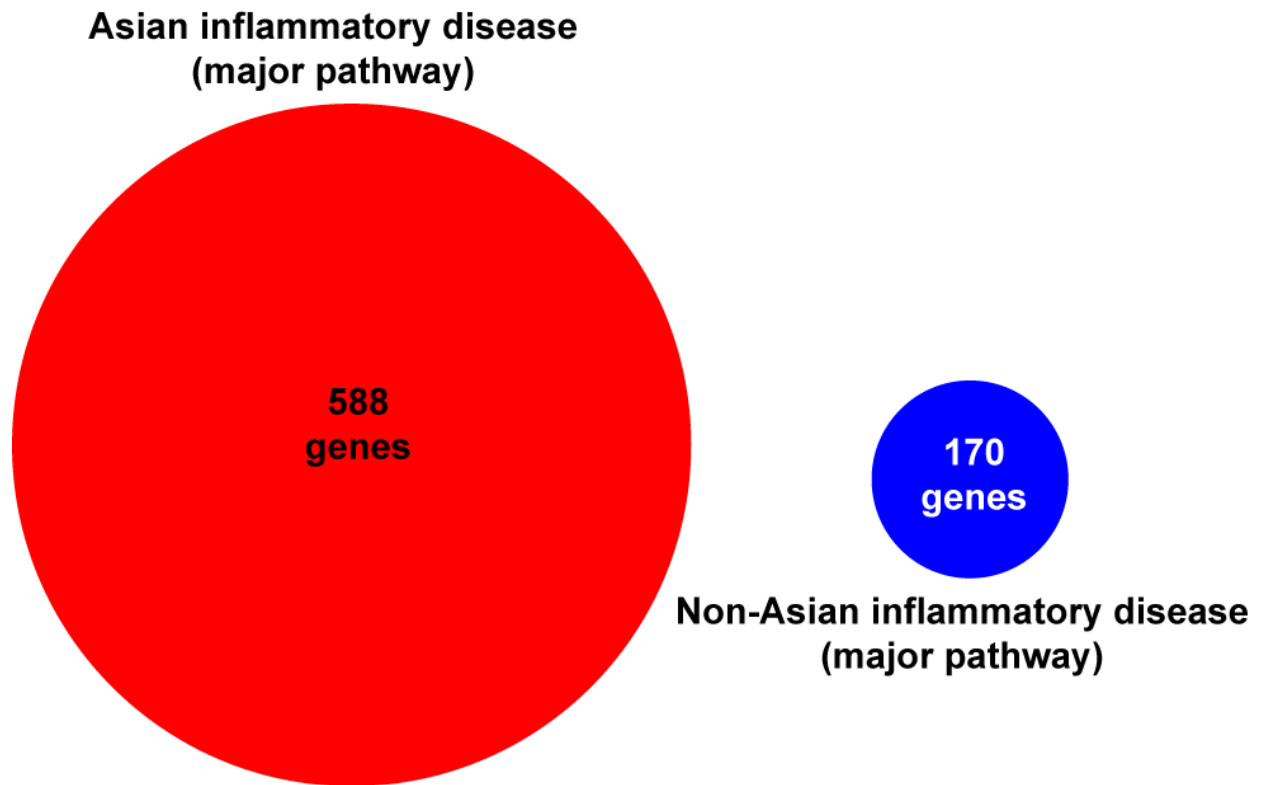
(B)



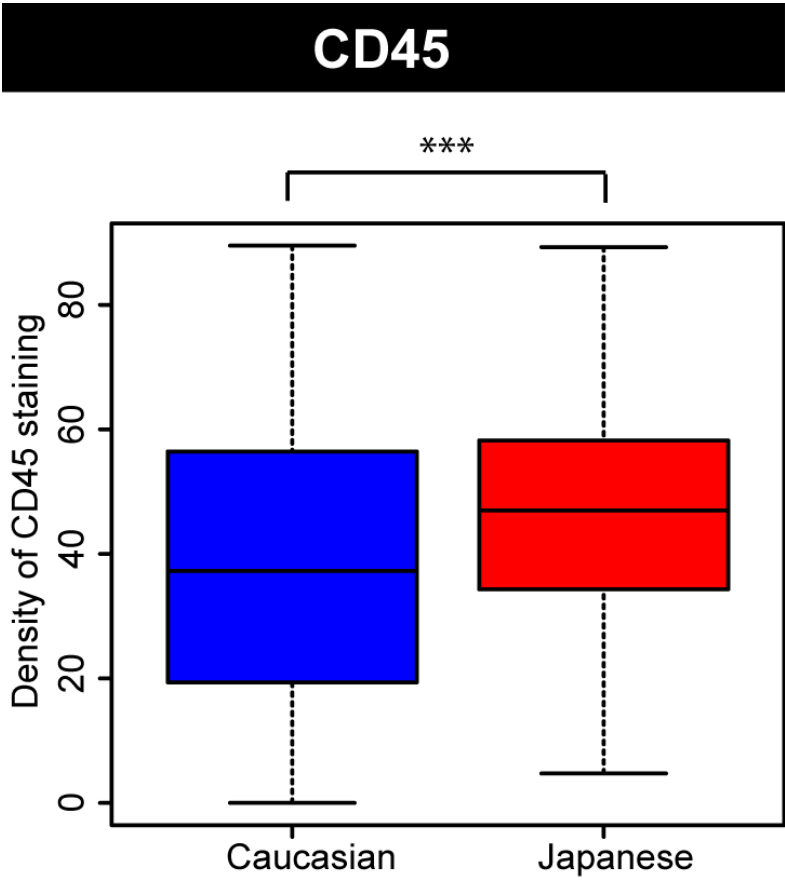
Supplementary Figure 4. A pairs-plot of mean expression profiles from the datasets; Affymetrix-based studies were more comparable than studies profiled on other platforms.



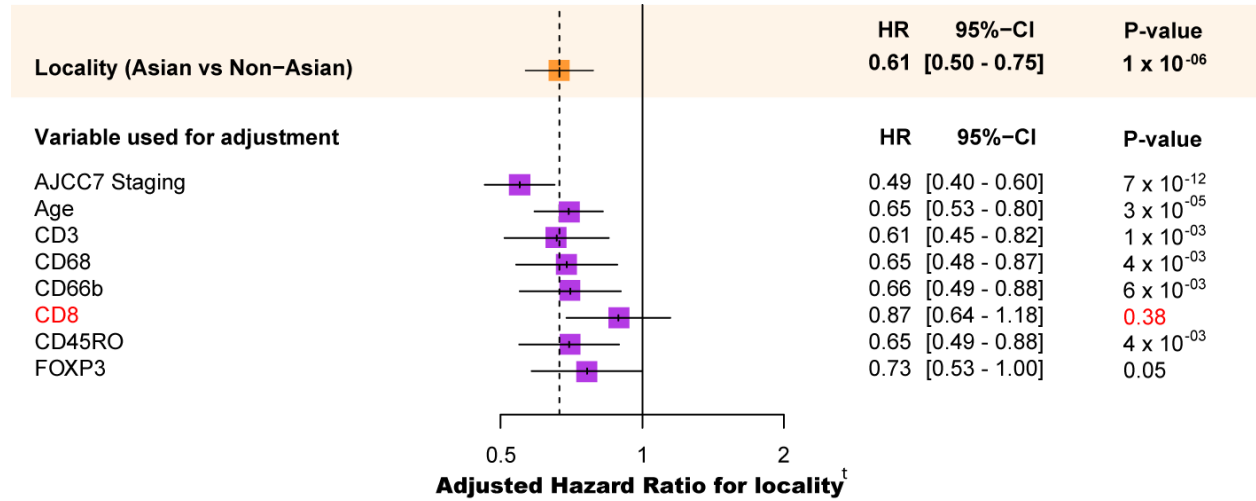
Supplementary Figure 5. Venn diagram of genes that constitute the inflammatory disease major pathway in Asian versus non-Asian gastric tumors shows no overlap.



Supplementary Figure 6. Immunohistochemistry assessment of pan-leukocyte CD45 staining in Japanese (red) compared to Caucasian (blue) gastric cancers.



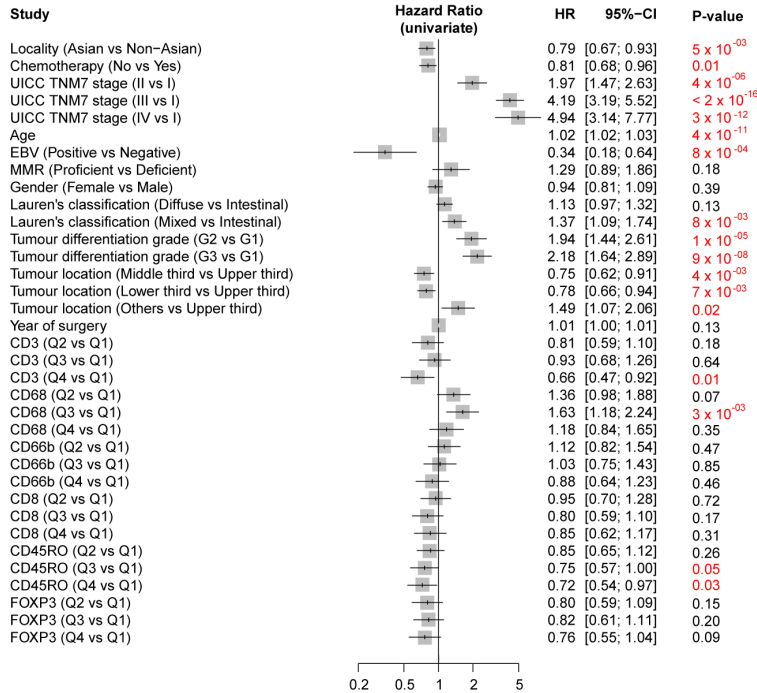
Supplementary Figure 7. Diagram to illustrate a multivariate Cox model fitted with both locality and chemotherapy factors (orange box) and fitted, in turn, with each of the respective factors (e.g. AJCC staging, Age, CD3 etc.). Adjusted hazard ratios (HR) and their corresponding p-values for geographic locality^t are presented. All factors causing a change in significance of locality-specific prognosis are coloured in red text.



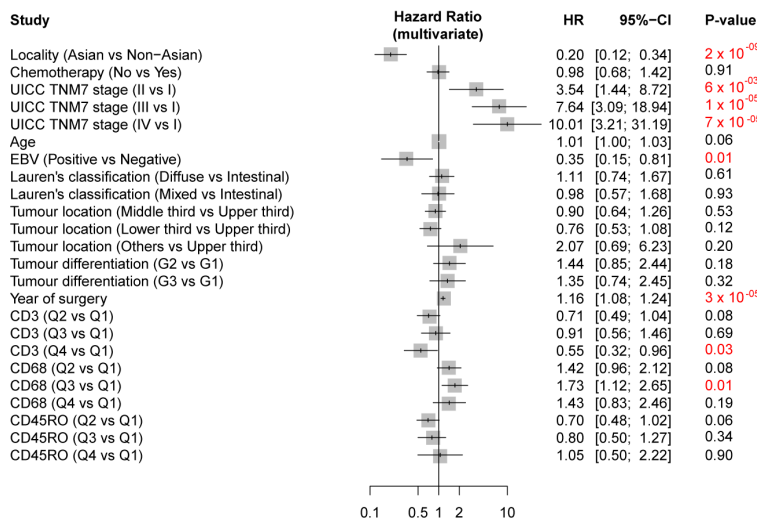
^tadjusted for chemotherapy factor.

Supplementary Figure 8. (A) Each line in the diagram represents outcomes (e.g. hazard ratios and p-values) of fitting a univariate Cox model on the individual listed factors. Significant factors (Wald test $p < 0.05$) are highlighted in red font. **(B)** Each line in the diagram represents outcomes (e.g. hazard ratios and p-values) of fitting a multivariate Cox model with all the listed factors. Significant factors (Wald test $p < 0.05$) are highlighted in red font. The diagram shows that CD3 level in the highest quantile is a significant prognosticator for better survival, while CD68 levels in the second and third quantiles are significant prognosticators for worse survival. However, note that the relationship between CD3 (or CD68) marker level and prognosis is non-linear.

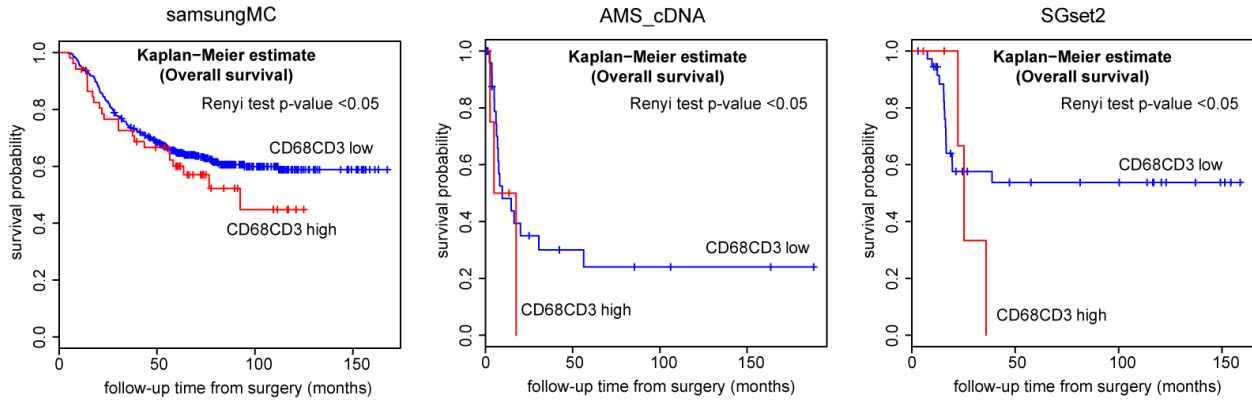
(A)



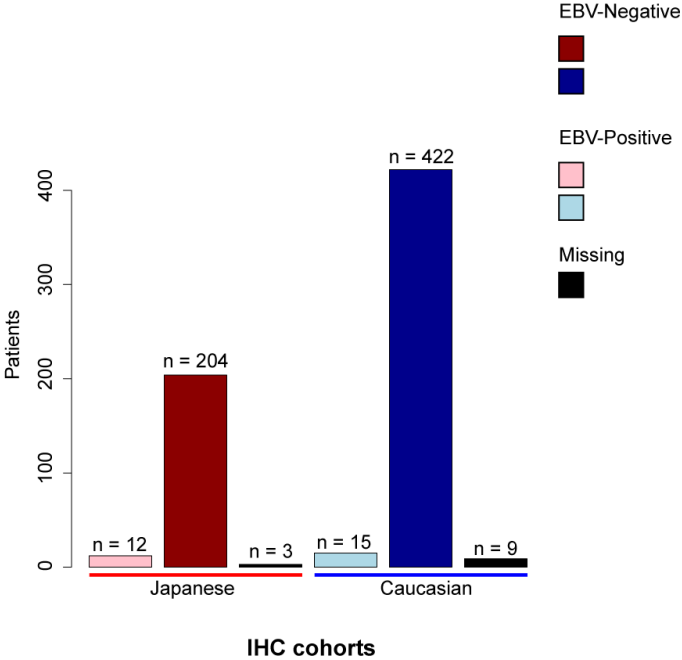
(B)



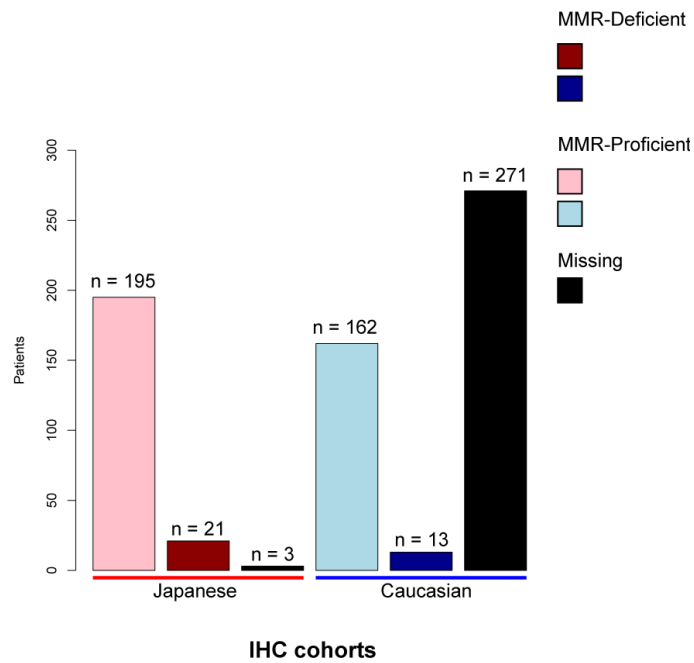
Supplementary Figure 9. Example Kaplan-Meier survival curves of CD68/CD3 high versus CD68/CD3 low groups in expression microarray cohorts show that high CD68/CD3 ratios are associated with worse overall survival.



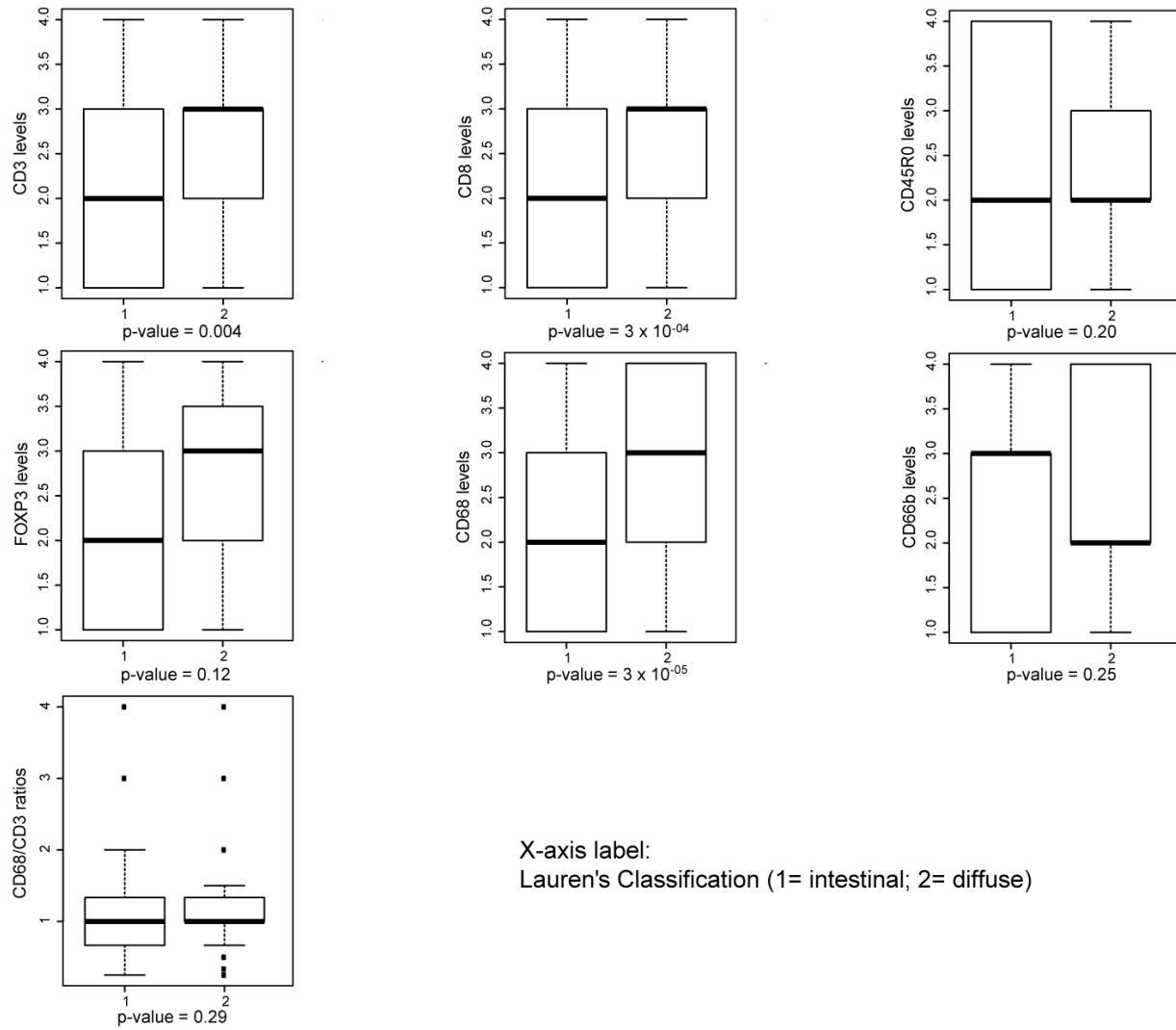
Supplementary Figure 10. EBV status assessments of patients in Japanese and Caucasian tissue microarray cohorts (TMA IHC). In the TMA IHC cohorts, the levels of EBV positivity in Japanese cohort (12 of total n = 216; 6%) is not significantly (Chi-square test $p > 0.05$) different from that in the Caucasian cohort (15 of total n = 437; 3%).



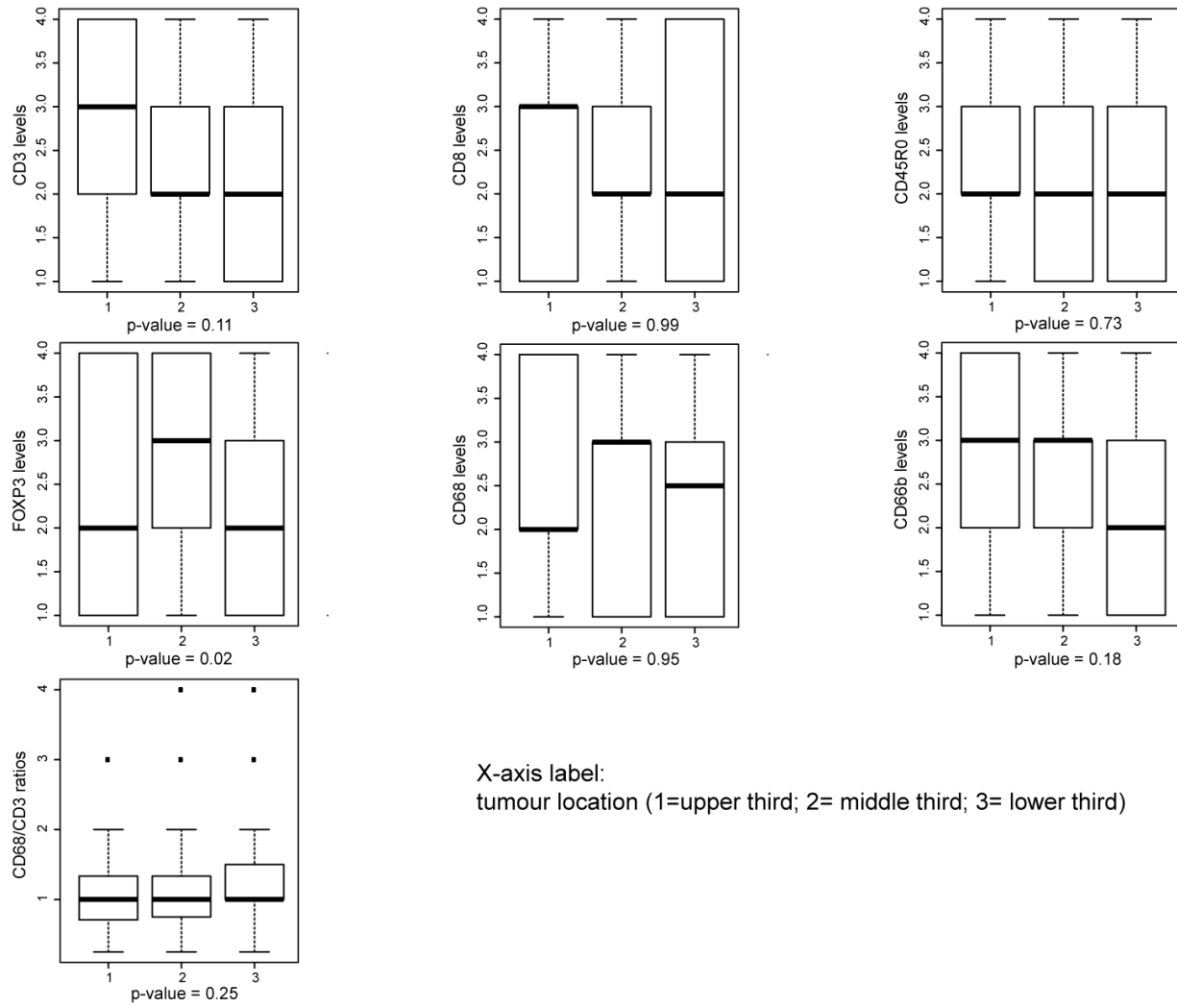
Supplementary Figure 11. DNA Mismatch Repair (MMR) status assessments in the Japanese and Caucasian tissue microarray cohorts (TMA IHC). In the IHC cohorts, the levels of MMR deficiency in Japanese cohort (21 of total n = 216; 10%) is not significantly (Chi-square test $p > 0.05$) different from that in the Caucasian cohort (13 of total n = 175; 7%).



Supplementary Figure 12. Assessment of association of immune markers with Lauren's classification. Hypothesis testing of difference across subtypes with immune marker levels assessed using Kruskal-Wallis test. P-values reported are 2-tailed.

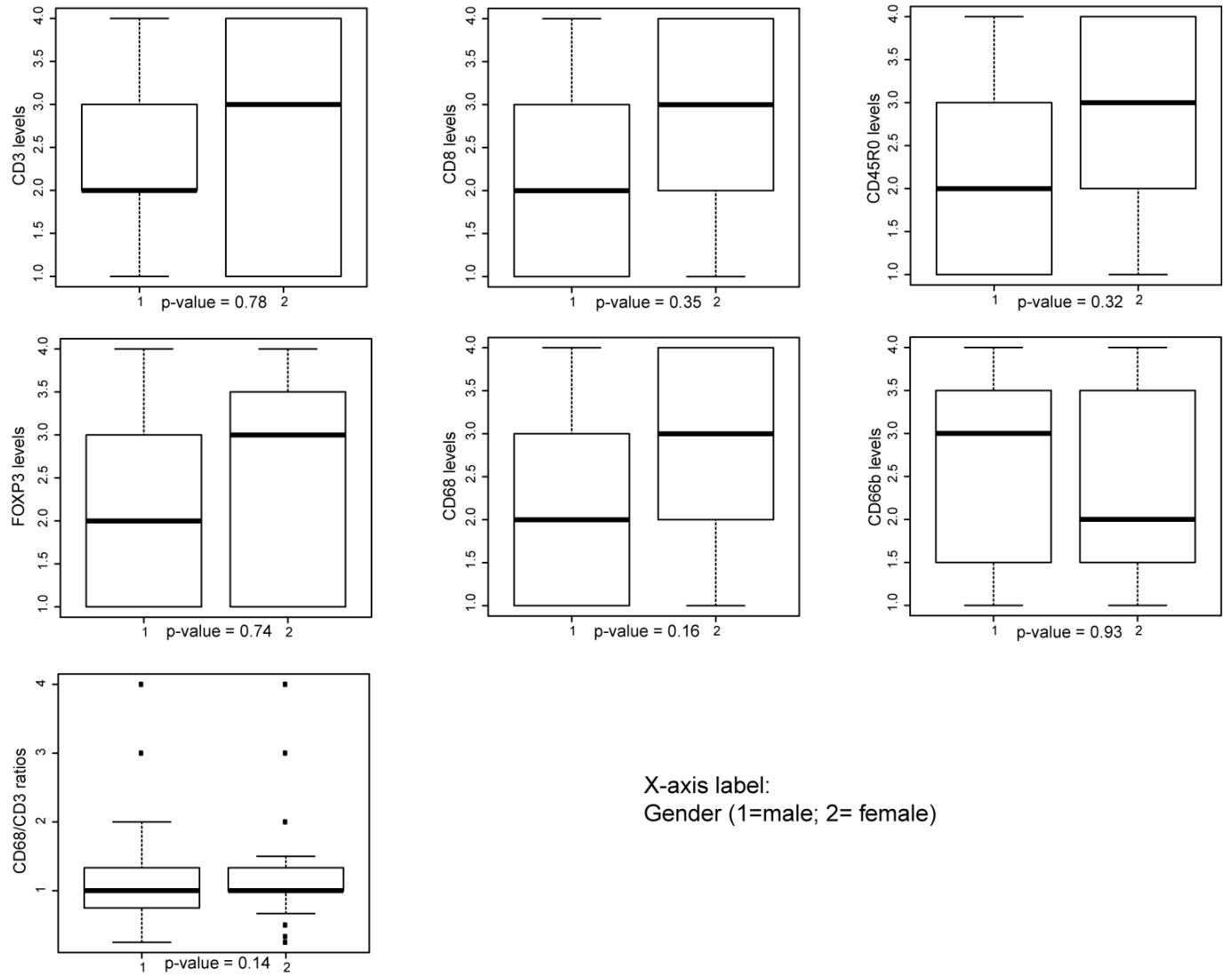


Supplementary Figure 13. Assessment of association of immune markers with tumour location. Hypothesis testing of difference across tumour locations with immune marker levels assessed using Kruskal-Wallis test. P-values reported are 2-tailed.



X-axis label:
tumour location (1=upper third; 2= middle third; 3= lower third)

Supplementary Figure 14. Assessment of association of immune markers with gender. Hypothesis testing of difference across gender groups with immune marker levels assessed using Kruskal-Wallis test. P-values reported are 2-tailed.



X-axis label:
Gender (1=male; 2= female)

References

- 1 Bolstad BM, Irizarry RA, Astrand M, Speed TP. A comparison of normalization methods for high density oligonucleotide array data based on variance and bias. *Bioinformatics* 2003;**19**:185-93.
- 2 Gagnon-Bartsch Johann A. JL, and Speed Terence P. Removing Unwanted Variation from High Dimensional Data with Negative Controls. 2013.
- 3 Gagnon-Bartsch JA, Speed TP. Using control genes to correct for unwanted variation in microarray data. *Biostatistics* 2012;**13**:539-52.
- 4 Smyth GK. Linear models and empirical bayes methods for assessing differential expression in microarray experiments. *Statistical applications in genetics and molecular biology* 2004;**3**:Article3.
- 5 Johnson WE, Li C, Rabinovic A. Adjusting batch effects in microarray expression data using empirical Bayes methods. *Biostatistics* 2007;**8**:118-27.
- 6 Sun Y, Zhang N, Owen AB. Multiple hypothesis testing, adjusting for latent variables., 2011.
- 7 Stegle O, Kannan A, Durbin R, Winn J. Accounting for non-genetic factors improves the power of eQTL studies.: Springer-Verlag, 2008.
- 8 Leek JT, Storey JD. A general framework for multiple testing dependence. *Proceedings of the National Academy of Sciences of the United States of America* 2008;**105**:18718-23.
- 9 Leek JT, Storey JD. Capturing heterogeneity in gene expression studies by surrogate variable analysis. *PLoS genetics* 2007;**3**:1724-35.
- 10 Desai KE, Storey JD. Cross-Dimensional Inference of Dependent High-Dimensional Data. *Journal of the American Statistical Association* 2012;**107**:135-51.
- 11 Ossandon FJ, Villarroel C, Aguayo F, Santibanez E, Oue N, Yasui W, *et al.* In silico analysis of gastric carcinoma Serial Analysis of Gene Expression libraries reveals different profiles associated with ethnicity. *Molecular cancer* 2008;**7**:22.
- 12 Wang XQ, Li H, Van Putten V, Winn RA, Heasley LE, Nemenoff RA. Oncogenic K-Ras regulates proliferation and cell junctions in lung epithelial cells through induction of cyclooxygenase-2 and activation of metalloproteinase-9. *Molecular biology of the cell* 2009;**20**:791-800.
- 13 Tuveson DA, Shaw AT, Willis NA, Silver DP, Jackson EL, Chang S, *et al.* Endogenous oncogenic K-ras(G12D) stimulates proliferation and widespread neoplastic and developmental defects. *Cancer cell* 2004;**5**:375-87.
- 14 Freeman A, Morris LS, Mills AD, Stoeber K, Laskey RA, Williams GH, *et al.* Minichromosome maintenance proteins as biological markers of dysplasia and malignancy. *Clinical cancer research : an official journal of the American Association for Cancer Research* 1999;**5**:2121-32.
- 15 Gerdes J, Lemke H, Baisch H, Wacker HH, Schwab U, Stein H. Cell cycle analysis of a cell proliferation-associated human nuclear antigen defined by the monoclonal antibody Ki-67. *J Immunol* 1984;**133**:1710-5.
- 16 Deshpande A, Sicinski P, Hinds PW. Cyclins and cdks in development and cancer: a perspective. *Oncogene* 2005;**24**:2909-15.
- 17 Subramanian A, Tamayo P, Mootha VK, Mukherjee S, Ebert BL, Gillette MA, *et al.* Gene set enrichment analysis: a knowledge-based approach for interpreting genome-wide expression profiles. *Proceedings of the National Academy of Sciences of the United States of America* 2005;**102**:15545-50.
- 18 Lovett S, A. W, Treanor D, Ward LC, Grabsch HI. The Presence of Macrophages is Related to Tumour Cell Density in Gastric Cancer – A Pilot Study Comparing Automated Image Analysis with Subjective Scoring in Full Sections and Virtual Tissue Cores? . 202nd Scientific Meeting of the Pathological Society of Great Britain & Ireland, 3–5 July: *Journal of Pathology* 2012:S26.
- 19 Grabsch H, Sivakumar S, Gray S, Gabbert HE, Muller W. HER2 expression in gastric cancer: Rare, heterogeneous and of no prognostic value - conclusions from 924 cases of two independent series. *Cellular oncology : the official journal of the International Society for Cellular Oncology* 2010;**32**:57-65.
- 20 Wright A HG, Randell R, Quirke P, Treanor D. . TMAi (Tissue MicroArray informatics): Using virtual slides and open standards to provide usability and interoperability for tissue microarrays in clinical trials. Liverpool, UK: 6th NCRI Cancer Conference, National Cancer Research Institute, 2010.
- 21 Grogg KL, Lohse CM, Pankratz VS, Halling KC, Smyrk TC. Lymphocyte-rich gastric cancer: associations with Epstein-Barr virus, microsatellite instability, histology, and survival. *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc* 2003;**16**:641-51.
- 22 Nakamura S, Ueki T, Yao T, Ueyama T, Tsuneyoshi M. Epstein-Barr virus in gastric carcinoma with lymphoid stroma. Special reference to its detection by the polymerase chain reaction and in situ hybridization in 99 tumors, including a morphologic analysis. *Cancer* 1994;**73**:2239-49.

- 23 Landais E, Saulquin X, Houssaint E. The human T cell immune response to Epstein-Barr virus. *The International journal of developmental biology* 2005;**49**:285-92.
- 24 Leung SY, Yuen ST, Chung LP, Chu KM, Wong MP, Branicki FJ, *et al.* Microsatellite instability, Epstein-Barr virus, mutation of type II transforming growth factor beta receptor and BAX in gastric carcinomas in Hong Kong Chinese. *British journal of cancer* 1999;**79**:582-8.