

Supplementary Material and Methods

RNA *in situ* hybridization and Immunohistochemistry (IHC)

The RNAscope 2.5 HD Detection Reagent-BROWN (Advanced Cell Diagnostic) was used, in accordance with the manufacturer's protocol, to detect the human *NR1H3* transcript (Hs-NR1H3, Cod.440881) directly onto histologic slices of untreated DLBCL biopsies. Then, these sections were stained for CD68 by IHC. After the antigen unmasking procedure (Target Retrieval Solution pH9, Novocastra, Leica Biosystems) at 98°C for 10 minutes, neutralization of the endogenous peroxidase with 3% H₂O₂ and Fc blocking (Novocastra, Leica Biosystems), the samples were incubated with an anti-CD68 primary antibody (PG-M1 clone, 1:50, Agilent Dako). The signal was revealed using the Signal Stain(R) Boost IHC Detection Reagent AP Mouse (Cell Signaling Technology) and the Vulcan Fast Red as substrate-chromogens, followed by Harris hematoxylin counterstaining. All the sections were analyzed under a Zeiss AXIOScope. The microphotographs were collected using a Zeiss Axiocam 503 Color digital camera by the Zen 2.0 imaging software.

Tissue microarrays (TMA) and immunohistochemical evaluation of CD68

TMA were constructed by selecting three cores of 0.6-mm diameter from representative areas of FFPE blocks relative to 64 cases selected among the on-trial validation cohort. TMA were subsequently cut into 2-µm thick sections and stained with CD68 (Clone PG-M1, dilution 1:8, courtesy of Prof. Brunangelo Falini) using a Dako AutoStainer Link48 (Dako Agilent), after antigen retrieval (PTLink at 92°C for 5 minutes in EnVision Flex Target Retrieval Solution High pH). Slides were counterstained with Gill's hematoxylin, dehydrated or mounted in Kaiser glycerin and cover-slipped. For each case, three different range of scores (<5%, 5-25%, >25%) were assigned corresponding to the number of stained cells/100 nucleated cells ratio.

Scores were independently evaluated by two hematopathologists (CA and VT); discordant cases were reviewed together to reach consensus between the two pathologists. Microphotographs were taken using an Olympus BX53 light microscope with an Olympus DP71 camera.

In vitro macrophage polarization and treatment

THP-1 cells (0.5×10^6) were seeded in 3D system using *Alvetex Scaffold 12-well plate* and treated with 320 nM of phorbol myristate acetate (PMA) for 6 hours. Then, the medium was supplemented with either lipopolysaccharides (LPS, 100 ng/ml) and INF- γ (20 ng/ml) to obtain M1 or IL-4 (20 ng/ml) and IL-13 (20 ng/ml) for M2 Mo for the last 18 h. RNAs from in vitro generated macrophages were extracted with the RNeasy Mini Kit (Qiagen) following the manufacturer's recommendations for subsequent real time PCR (RT-PCR) analyses. Contaminating DNA was removed by ezDNAase (Invitrogen), cDNA was prepared by Multiscribe Reverse Transcriptase (Applied Biosystem) and analyzed by RT-PCR using SYBR-Green Master Mix in a StepOnePlus™ Real-Time PCR Systems (Applied Biosystem). The primers used for RT-PCR are detailed in Supplementary Table S1. Primer sequences for human *18S* and *NR1H3* were previously reported(1,2).

Statistical analysis

To perform survival analysis, *NR1H3* optimal cut-off was determined in the discovery set of 314 DLBCL. In detail, two groups of patients with high (*NR1H3*^{high}) and low (*NR1H3*^{low}) *NR1H3* expression were identified by means of the maximally selected rank statistics using the function *surv_cutpoint* as implemented in the *survminer* package (version 0.4.9) of R statistical software, assuming the Overall Survival (OS) as dependent variable at 133 months from the enrollment (Supplementary Figure S7). This represents an outcome-oriented method providing

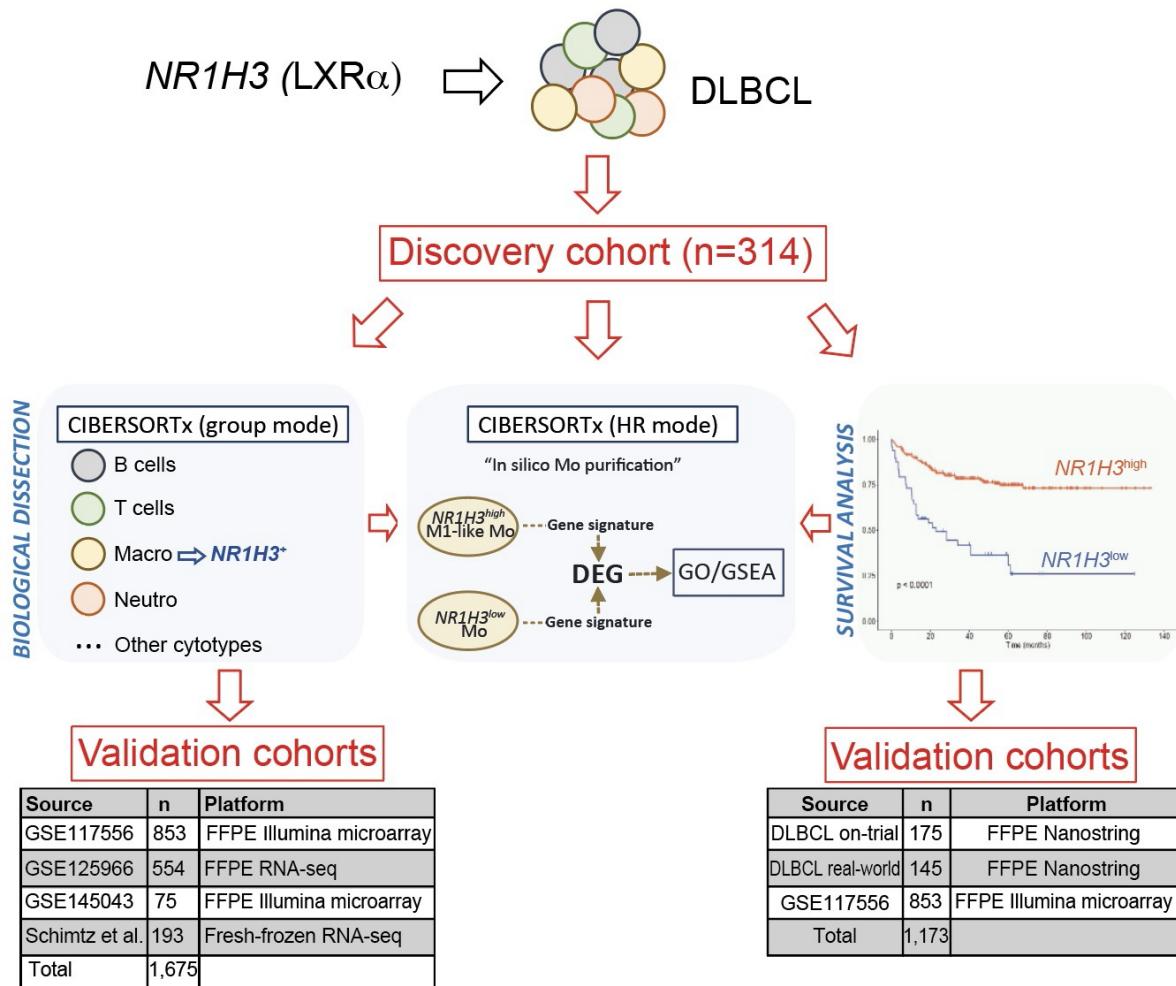
the optimal cut-off value. All the expression values of *NR1H3* were standardized to have a zero mean and one variance normal distribution, before computing and applying the optimal cut-off to other datasets. Log-rank test was applied to compare OS among patients in different groups. Univariate and multivariate analyses were constructed through the Cox proportional hazards regression model using *survival* package (version 3.2-13).

GSEA(3) was performed on the discovery set using *NR1H3* labels (high or low) as derived from prognostic stratification. Diff_of_Classes metric was used for ranking genes. We tested roughly 1,300 gene sets gathered from widely used databases (Kegg, Reactome, MSigDB, and xCell(4), including immune and stromal cell types as well as genes related to inflammatory immune responses, cytokine production, and metabolism.

Supplementary References

1. Pencheva N, Buss CG, Posada J, Merghoub T, Tavazoie SF. Broad-Spectrum Therapeutic Suppression of Metastatic Melanoma through Nuclear Hormone Receptor Activation. *Cell* [Internet]. 2014 Feb 27 [cited 2019 Oct 29];156(5):986–1001. Available from: <https://www.sciencedirect.com/science/article/pii/S0092867414000907?via%3Dihub>
2. Bruns H, Büttner M, Fabri M, Mougiakakos D, Bittenbring JT, Hoffmann MH, et al. Vitamin D-dependent induction of cathelicidin in human macrophages results in cytotoxicity against high-grade B cell lymphoma. *Sci Transl Med* [Internet]. 2015 Apr 8 [cited 2018 May 6];7(282):282ra47-282ra47. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25855493>
3. 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. *Proc Natl Acad Sci U S A* [Internet]. 2005 Oct 25 [cited 2018 Jan 8];102(43):15545–50. Available from: <http://www.pnas.org/cgi/doi/10.1073/pnas.0506580102>
4. Aran D, Hu Z, Butte AJ. xCell: Digitally portraying the tissue cellular heterogeneity landscape. *Genome Biol* [Internet]. 2017 Nov 15 [cited 2020 Apr 4];18(1):220. Available from: <https://genomebiology.biomedcentral.com/articles/10.1186/s13059-017-1349-1>

Supplementary Figures



Supplementary Figure S1. Workflow of study design.

This study focused on the characterization of the nuclear receptor LXR α , encoded by *NR1H3* gene, in DLBCL. Upon observing the overexpression of *NR1H3* in bulk DLBCL samples compared with purified normal or malignant B-cells, we applied CIBERSORTx-Group Mode to a discovery cohort of 314 DLBCL samples as well as to hundreds DLBCL public GEP data. We found *NR1H3* strictly associated with a particular macrophage subtype (left panel). Moreover, we analysed *NR1H3* prognostic value in the discovery set dichotomizing cases by an expression cut-off and validated the results in three additional datasets derived from diverse

transcriptome platforms (right panel). Macrophages were purified *in silico* from the discovery cohort by High-Resolution mode CIBERSORTx and DEG comparing *NR1H3*^{high} versus *NR1H3*^{low} cases identified and characterized biologically by GO and GSEA (middle panel).

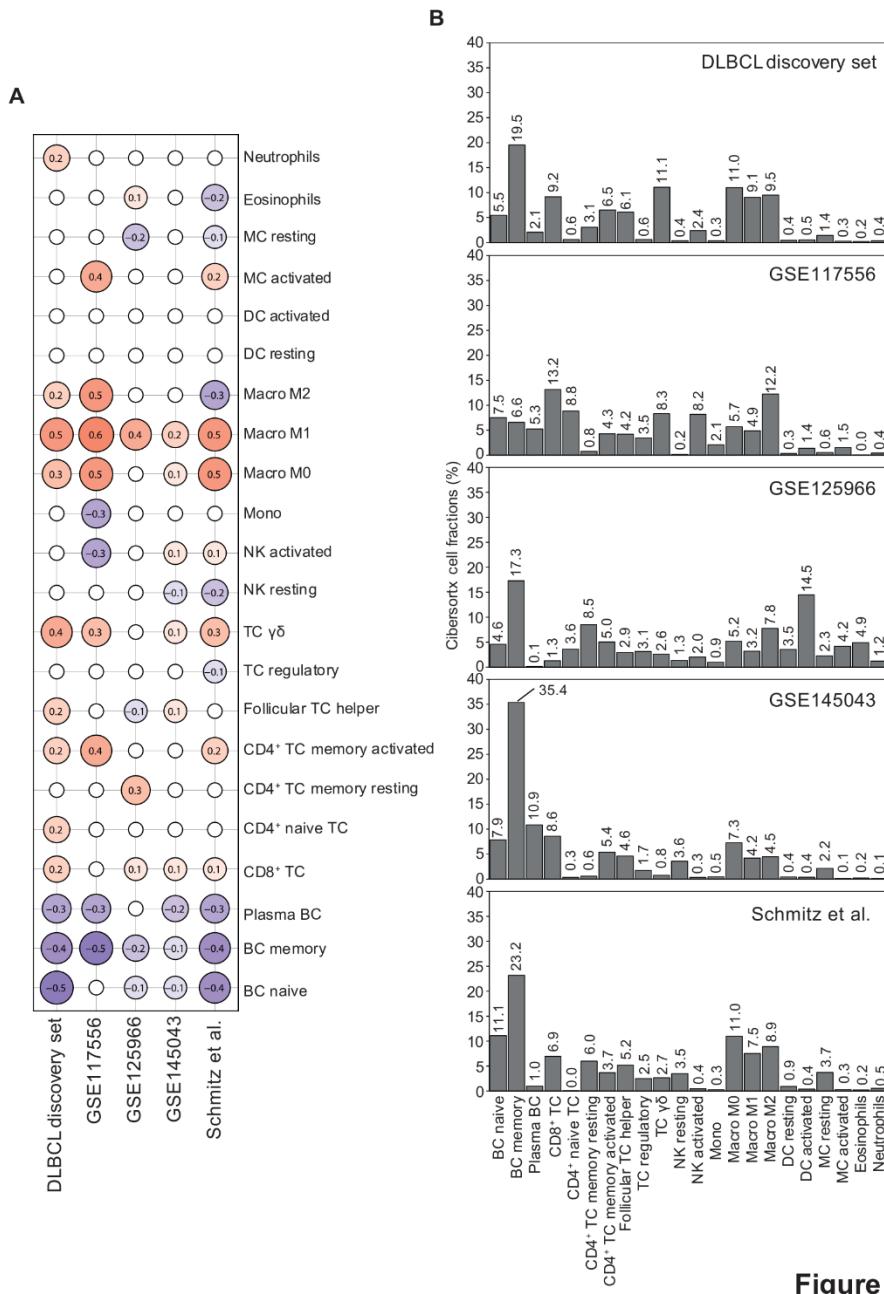
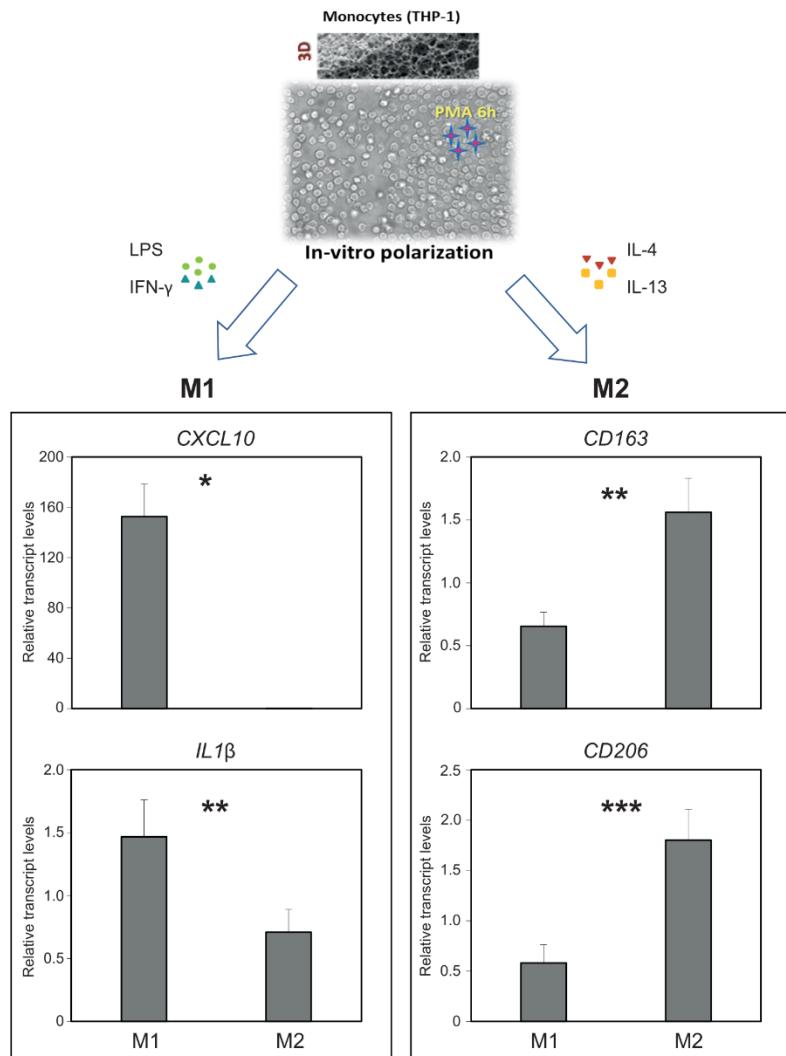


Figure S2

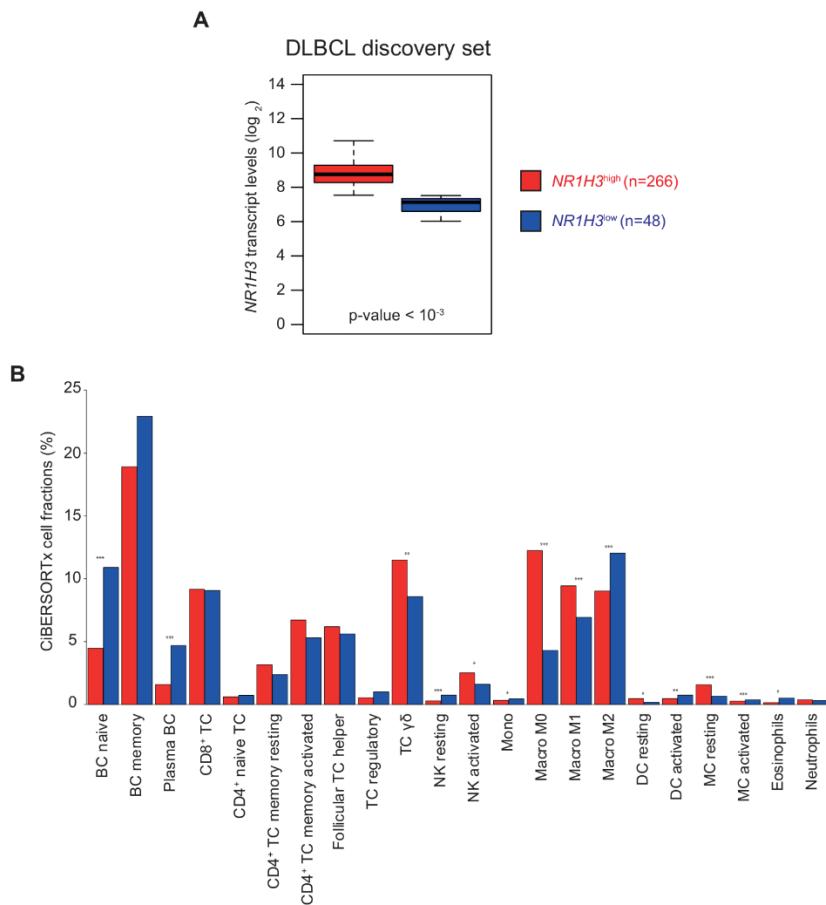
Supplementary Figure S2. *NR1H3* correlation and CIBERSORTx cell fractions analysis.

A. Bubble plot showing correlations between *NR1H3* expression and cell percentages of TME cells of LM22 signature (CIBERSORTx) across 5 different datasets including the discovery set and other four different expression data. Significant ($p\text{-value} \leq 0.05$) Pearson's correlation coefficient spanning from red (for positive correlation) to blue (for negative correlation) are shown. Blank dots indicate no significance. **C.** Histograms showing cell type percentages of LM22 signature as detected by CIBERSORTx across five different GEP.



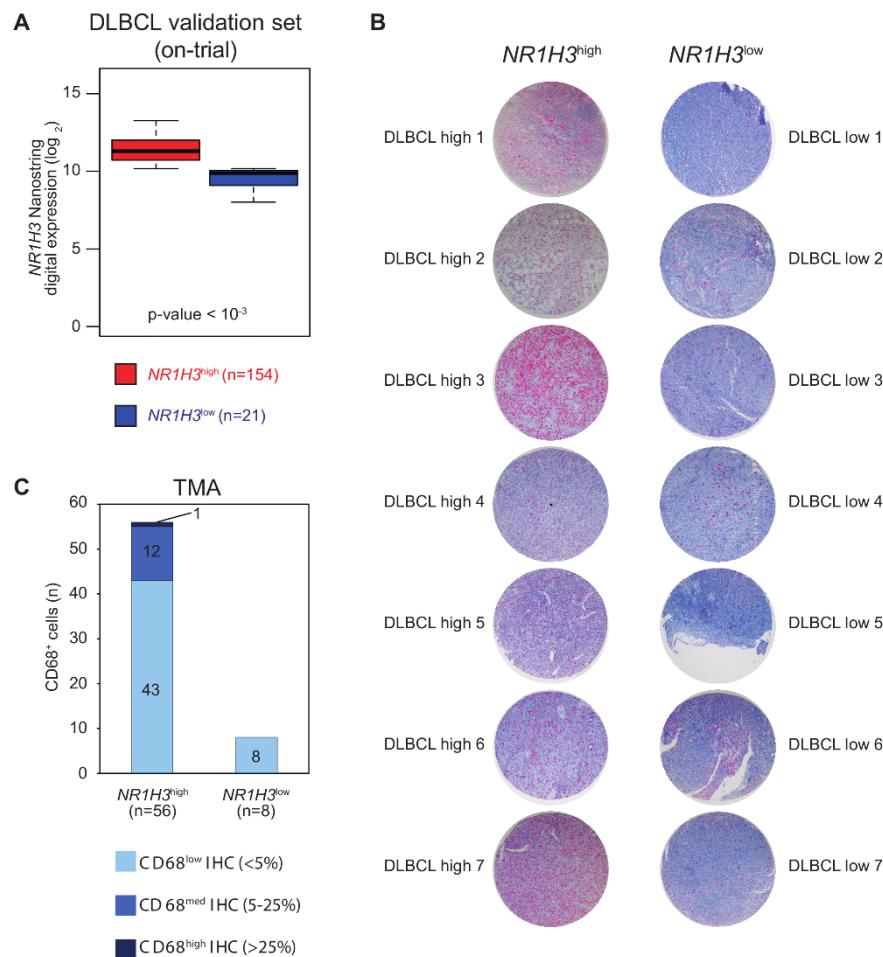
Supplementary Figure S3. *In-vitro* generated Mo characterization.

Upper panel: schematic representation of THP-1 treatment and scanning electron microscope image of Alvetex Scaffold used for 3D cell culture (<https://www.reprocell.com/alvetex>). Lower panels: expression levels quantified by qRT-PCR of M1 (*CXCL10* and *IL-1 β* , left side panel) and M2 (*CD206* and *CD163*, right panel) specific markers after 24 hours from cytokines activation. Relative quantification of gene expression was analyzed with the $2^{-\Delta\Delta C_t}$ method using 18S as the endogenous control. P-value was derived from two-tailed t-test or Mann–Whitney U-test after confirming that the data met the appropriate assumptions.



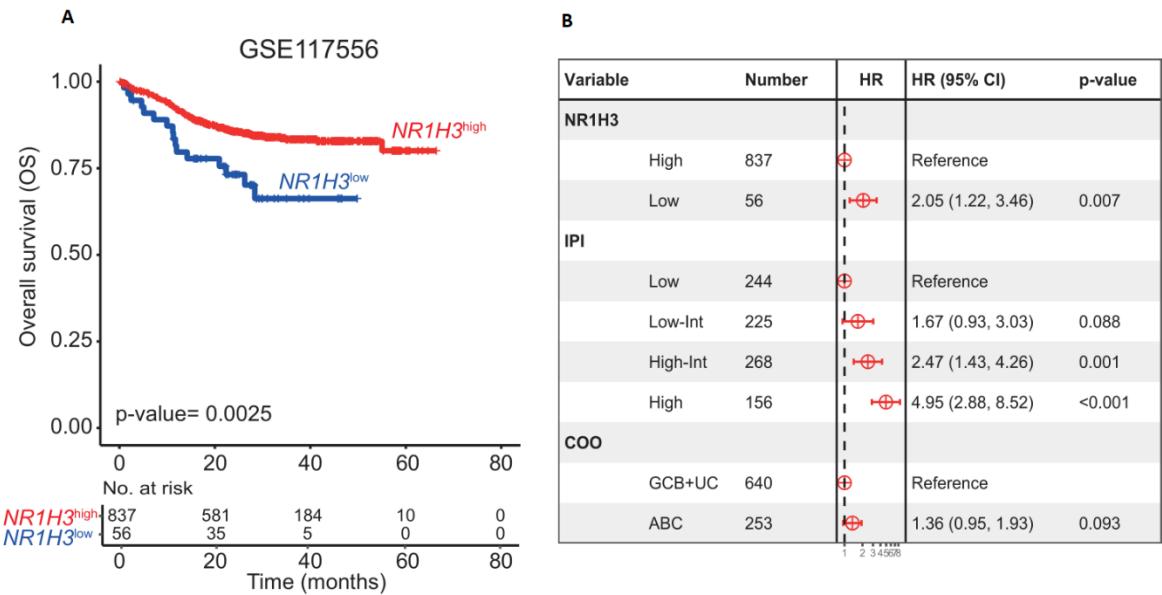
Supplementary Figure S4. Cell fractions analysis by deconvolution in the discovery cohort.

A. Boxplot representing $NR1H3$ expression of prognostic subgroups ($NR1H3^{\text{high}}$, red and $NR1H3^{\text{low}}$, blue) in the discovery set. **B.** Histograms indicating cell type percentages of LM22 signature as detected by CIBERSORTx in the $NR1H3$ prognostic subgroups of the discovery set. P-value was derived from Mann–Whitney U test.



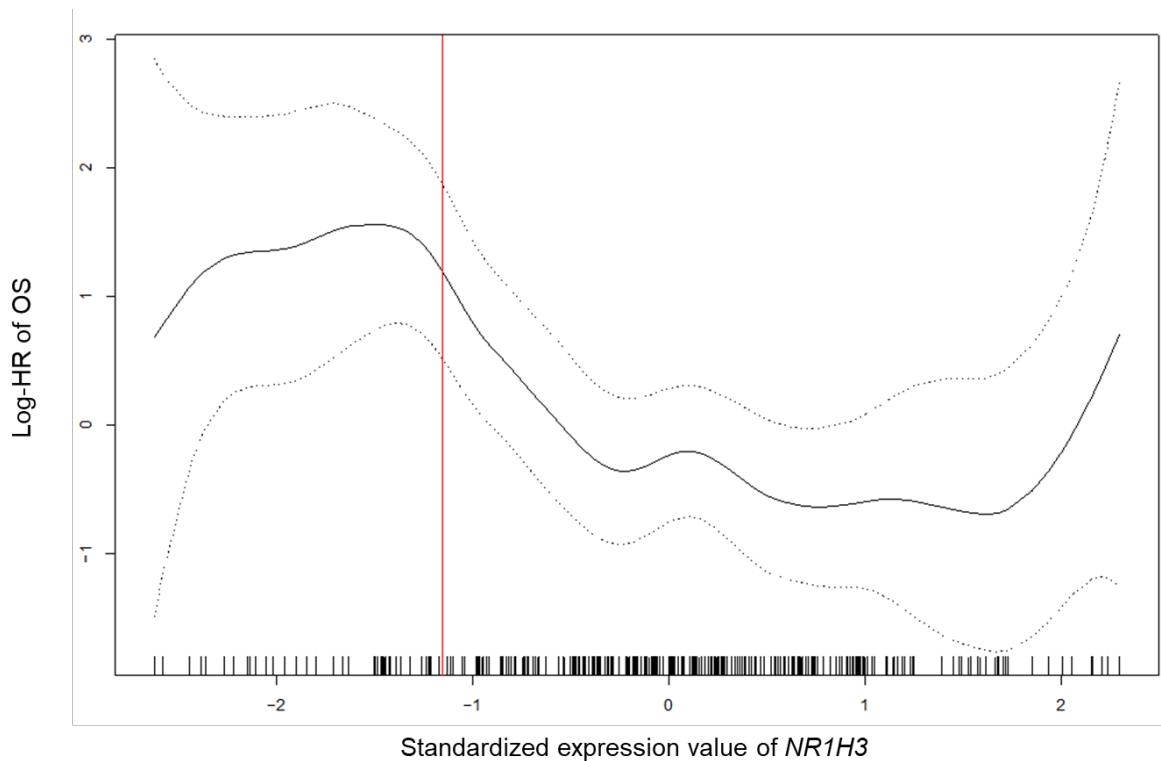
Supplementary Figure S5. TMA analysis in DLBCL on-trial validation cohort.

A. Box plot representing *NR1H3* digital expression of the prognostic subgroups (*NR1H3*^{high}, red and *NR1H3*^{low}, blue) in the on-trial validation cohort. **B.** CD68 immunostaining of seven representative cases from TMA 10X (on-trial DLBCL validation cohort, n=64) as stratified by *NR1H3* expression. **C.** Number of CD68⁺cells between *NR1H3*^{high} and *NR1H3*^{low} groups (n=64). Low, Med and High labels correspond to <5, 5-25, <25 percentages, respectively.



Supplementary Figure S6. NR1H3 prognostic analysis on validation set.

A. Kaplan-Meier plots indicating OS in the LXR α subgroups dichotomized by applying the *NR1H3* prognostic cut-off to GSE117556 series. **B.** Forest plot shows multivariate analysis in the same dataset including *NR1H3* expression, COO and IPI as covariates. HR, hazard ratio; COO, cell of origin; IPI, international prognostic index.



Supplementary Figure S7. Identification of *NR1H3* expression value cut-off in the discovery cohort.

Spline chart showing the distribution of standardized expression value of *NR1H3* (x-axis) relating to the Log Hazard Ratio of patients' outcome in terms of OS (y-axis) in the discovery cohort (n=314). The vertical red line shows the optimal cut-off (-1.15) as identified by the maximum selected rank statistic. HR, hazard ratio; OS, overall survival.

Supplementary Tables

Table S1. Primers sequences used for in vitro experiments

Gene	Primer sequence
<i>CXCL10</i> Forward	5'-AGCCAATTTGTCCACGTGT-3'
<i>CXCL10</i> Reverse	5'-TGATGGCCTTCGATTCTG-3'
<i>IL-1β</i> Forward	5'-ACACATGGGATAACGAGGCT-3'
<i>IL-1β</i> Reverse	5'-GGACCAGACATCACCAAGCT-3'
<i>CD163</i> Forward	5'-AGCAGCACATGGGAGATT-3'
<i>CD163</i> Reverse	5'-AGCAGATTACAGAGGCCACT-3'
<i>CD206</i> Forward	5'-CCATGAGAACCGGGATTGC-3'
<i>CD206</i> Reverse	5'-GGTGGGTGGGTTACTCCTTCT-3'
<i>ABCA1</i> Forward	5'-CCAGGCCAGTACGGAATTC-3'
<i>ABCA1</i> Reverse	5'-CCTCGCCAAACCAGTAGGA-3'

Table S2. Differentially expressed genes derived by comparing *NR1H3*^{high} and *NR1H3*^{low} cases in the discovery set

GENE	logFC	FC	AveExpr	t	P.Value	adj.P.Val	B
ORM1	4.5530	23.4738	5.95332	6.24652	1.37E-09	4.19E-08	11.325045
LGALS2	3.5635	11.8226	7.79993	9.20404	5.07E-18	1.18E-15	30.275099
CHIT1	3.1828	9.0809	9.23569	10.29159	1.38E-21	7.86E-19	38.331194
CHI3L1	1.8142	3.5167	11.24797	9.99496	1.35E-20	5.25E-18	36.087458
CYP27B1	1.7132	3.2788	7.53810	8.14450	9.17E-15	9.44E-13	22.931057
C15orf48	1.4184	2.6730	10.39704	7.37146	1.52E-12	9.07E-11	17.942094
TNFRSF9	1.2071	2.3087	8.25992	9.93834	2.09E-20	6.89E-18	35.663
SULT1C2	1.2034	2.3028	8.27848	9.17731	6.17E-18	1.34E-15	30.083321
LRRC15	1.1960	2.2910	7.73984	4.24484	2.89E-05	0.0003179	1.7650127
CES1	1.1849	2.2735	7.56703	6.14255	2.46E-09	7.13E-08	10.755452
CLEC4E	1.1717	2.2528	9.65124	11.08522	2.62E-24	2.74E-21	44.485391
SLAMF1	1.1299	2.1884	8.70786	4.63310	5.29E-06	7.13E-05	3.3754816
GJB2	1.1039	2.1494	6.80247	4.74908	3.12E-06	4.44E-05	3.880385
ITIH3	1.0521	2.0736	6.45664	5.26119	2.66E-07	4.86E-06	6.2371216
VNN1	1.0478	2.0674	9.33273	8.68521	2.14E-16	3.35E-14	26.610749
CTNND2	1.0339	2.0476	6.21190	4.88465	1.66E-06	2.52E-05	4.4842702
HTRA4	0.9709	1.9601	8.47080	8.20131	6.22E-15	6.98E-13	23.310586
PLA2G2D	0.9568	1.9411	9.37665	8.70308	1.88E-16	3.03E-14	26.734898
TMEM119	0.9555	1.9392	7.71856	7.70220	1.78E-13	1.32E-11	20.035426
HS3ST3A1	0.9528	1.9357	7.54602	8.04689	1.78E-14	1.55E-12	22.282846
SCARA5	0.9475	1.9285	7.18729	5.30307	2.16E-07	4.04E-06	6.438826
SERPINA1	0.9281	1.9028	10.22091	8.12167	1.07E-14	1.05E-12	22.778976
SIGLEC15	0.9038	1.8710	8.92992	6.76460	6.58E-11	2.66E-09	14.271788
NR1H3	0.8733	1.8319	10.00839	13.62375	1.67E-33	1.05E-29	65.302806
LTA	0.8704	1.8282	8.21763	5.99259	5.68E-09	1.52E-07	9.9471147
ABI3BP	0.8659	1.8225	10.52896	6.99930	1.57E-11	7.90E-10	15.664221
DNAJC5B	0.8509	1.8037	9.13812	5.05760	7.25E-07	1.19E-05	5.2756524
C5orf20	0.8305	1.7782	6.66420	8.67986	2.22E-16	3.40E-14	26.573663
MMP2	0.8236	1.7699	9.18455	3.68578	0.0002687	0.0022485	-0.3315975
PTGDS	0.8204	1.7659	13.62498	8.84430	6.87E-17	1.17E-14	27.720993
CD300LF	0.8063	1.7487	8.80929	9.98849	1.42E-20	5.25E-18	36.038939
ADAMDEC1	0.7958	1.7360	12.67150	11.12350	1.93E-24	2.42E-21	44.787428
TMEM176B	0.7902	1.7293	10.60832	9.16308	6.84E-18	1.43E-15	29.981329
PADI2	0.7819	1.7194	7.79467	4.32888	2.02E-05	0.0002318	2.1030282
G0S2	0.7761	1.7125	9.34405	6.25496	1.30E-09	4.03E-08	11.371612
LOC100129518	0.7743	1.7104	11.34536	7.89679	4.89E-14	4.15E-12	21.296143
LILRB4	0.7713	1.7068	8.83897	8.98336	2.53E-17	4.81E-15	28.701269
ALOX15B	0.7712	1.7067	7.31098	6.98245	1.74E-11	8.69E-10	15.563056
APOBEC3B	0.7700	1.7053	8.68388	3.55703	0.0004331	0.0033772	-0.7762056
TNFAIP2	0.7677	1.7025	8.56400	8.42637	1.32E-15	1.65E-13	24.830805
P2RY13	0.7599	1.6934	7.07770	8.10269	1.22E-14	1.14E-12	22.652749
CTSK	0.7567	1.6896	11.08285	5.42101	1.19E-07	2.40E-06	7.0140246

DCSTAMP	0.7484	1.6800	5.71676	4.93543	1.30E-06	2.03E-05	4.7142046
SLC1A1	0.7476	1.6789	8.32925	4.42905	1.31E-05	0.0001575	2.5136324
CPM	0.7443	1.6752	9.21052	6.43541	4.62E-10	1.56E-08	12.378704
PDE4DIP	0.7340	1.6632	8.71824	5.30598	2.13E-07	4.00E-06	6.45286
CSF2RA	0.7329	1.6619	8.39765	9.85668	3.89E-20	1.11E-17	35.052926
TIFAB	0.7244	1.6523	7.92030	10.16579	3.65E-21	1.70E-18	37.375643
CLMP	0.7201	1.6473	7.43967	5.57854	5.25E-08	1.14E-06	7.7985594
MXRA5	0.7200	1.6472	9.90484	3.73200	0.0002256	0.001945	-0.168457
MREG	0.7184	1.6454	10.75233	8.59674	3.99E-16	5.33E-14	25.998666
MMP9	0.7076	1.6330	12.75517	8.37363	1.90E-15	2.34E-13	24.472231
CAPG	0.7051	1.6302	11.61429	11.42261	1.72E-25	3.59E-22	47.16195
P2RX7	0.6995	1.6239	8.45863	7.87392	5.69E-14	4.64E-12	21.146907
CYP1B1	0.6967	1.6207	10.29845	5.90510	9.18E-09	2.32E-07	9.4828605
PLA2G7	0.6927	1.6163	11.35548	12.08840	7.26E-28	2.28E-24	52.535462
ARRDC4	0.6819	1.6043	8.43718	7.68331	2.01E-13	1.45E-11	19.91418
ITGB2	0.6757	1.5974	12.08917	8.19865	6.34E-15	6.98E-13	23.292781
NCEH1	0.6682	1.5891	8.92131	9.67199	1.57E-19	4.28E-17	33.682948
CCRL2	0.6679	1.5887	7.83591	7.71672	1.61E-13	1.22E-11	20.128769
NUPR1	0.6673	1.5881	10.21479	5.76252	1.98E-08	4.61E-07	8.7379404
PLCL1	0.6651	1.5857	6.06666	6.94960	2.14E-11	1.02E-09	15.366425
RASSF4	0.6602	1.5803	10.45101	10.02102	1.11E-20	4.64E-18	36.283283
CYP27A1	0.6597	1.5798	9.56824	10.16090	3.79E-21	1.70E-18	37.338675
TDO2	0.6553	1.5750	8.52135	6.85459	3.82E-11	1.71E-09	14.801546
STEAP3	0.6510	1.5702	8.48403	6.33327	8.33E-10	2.67E-08	11.80592
S1PR3	0.6482	1.5672	9.03316	7.09662	8.60E-12	4.58E-10	16.251728
FSCN1	0.6389	1.5572	7.71706	5.71098	2.61E-08	5.94E-07	8.4723237
ITGAM	0.6358	1.5538	8.69410	7.79131	9.86E-14	7.64E-12	20.61014
KCNE3	0.6285	1.5459	8.91065	9.92112	2.38E-20	7.47E-18	35.534151
LOXL1	0.6284	1.5458	8.49951	6.22264	1.57E-09	4.73E-08	11.193534
PDE4D	0.6258	1.5430	7.35115	4.61993	5.62E-06	7.49E-05	3.3188251
SLC1A3	0.6247	1.5419	9.84238	8.21078	5.83E-15	6.66E-13	23.374072
TRPA1	0.6228	1.5398	6.57760	5.12748	5.16E-07	8.75E-06	5.6020727
ADAMTS5	0.6223	1.5393	6.87915	3.54399	0.0004542	0.0034942	-0.820451
IL4I1	0.6213	1.5383	8.89247	6.26225	1.25E-09	3.89E-08	11.411852
SOD2	0.6207	1.5377	9.64821	6.05727	3.97E-09	1.11E-07	10.293858
SNX7	0.6186	1.5353	7.77035	3.68126	0.0002733	0.002281	-0.3474666
RCAN2	0.6142	1.5307	7.44886	2.94759	0.0034435	0.0188778	-2.6808186
HSPA1A	0.6098	1.5260	11.07538	4.99074	1.00E-06	1.58E-05	4.9669256
PPM1N	0.6057	1.5217	7.44066	2.98830	0.0030275	0.0168919	-2.564036
PLAUR	0.6044	1.5204	8.89141	5.86315	1.15E-08	2.84E-07	9.2621789
ROBO1	0.6020	1.5178	9.25055	4.47664	1.06E-05	0.0001314	2.7116046
COL6A2	0.6007	1.5165	8.74425	4.80376	2.42E-06	3.51E-05	4.1221986
APOE	0.5954	1.5109	12.15897	7.84826	6.76E-14	5.37E-12	20.979765
GAS1	0.5941	1.5096	9.15789	3.77774	0.0001894	0.0016818	-0.0051788
DSC2	0.5900	1.5053	8.22657	7.69686	1.84E-13	1.34E-11	20.001118

BATF3	0.5877	1.5028	7.94225	3.12877	0.0019207	0.0117621	-2.1495106
HCK	0.5874	1.5025	9.72345	5.74188	2.22E-08	5.08E-07	8.631333
PDPN	0.5849	1.4999	8.03448	4.17258	3.91E-05	0.0004149	1.479062
CA12	0.5812	1.4961	8.84660	3.47279	0.0005876	0.0043496	-1.0592435
BHLHE41	0.5811	1.4960	9.76999	4.02991	7.01E-05	0.0006986	0.9274138
LOC101928716	0.5809	1.4958	5.44178	6.41476	5.21E-10	1.75E-08	12.262314
IL18BP	0.5791	1.4939	8.03403	5.82987	1.38E-08	3.33E-07	9.088028
RNF130	0.5704	1.4849	10.11177	6.85219	3.87E-11	1.72E-09	14.787361
PILRA	0.5693	1.4838	7.90695	4.75115	3.09E-06	4.42E-05	3.8895213
ARID5A	0.5669	1.4814	7.64403	4.45848	1.15E-05	0.0001399	2.6358295
ACP5	0.5633	1.4776	10.54255	8.16321	8.08E-15	8.45E-13	23.055825
SIRPB2	0.5621	1.4765	6.98900	8.06208	1.61E-14	1.44E-12	22.383373
ITGAX	0.5616	1.4759	8.45624	7.29704	2.44E-12	1.44E-10	17.479844
C3orf80	0.5558	1.4700	5.09870	4.61457	5.75E-06	7.65E-05	3.2958299
RAB13	0.5556	1.4698	11.37741	7.52267	5.74E-13	3.75E-11	18.891248
SDC4	0.5552	1.4694	9.42300	6.50028	3.16E-10	1.12E-08	12.746084
ENPP2	0.5513	1.4654	12.08948	8.14052	9.43E-15	9.54E-13	22.90454
SLC47A1	0.5497	1.4638	6.88315	5.02228	8.59E-07	1.39E-05	5.1121585
TMEM255A	0.5474	1.4614	6.89442	4.35232	1.83E-05	0.0002123	2.1983638
BHLHE40	0.5467	1.4608	10.62241	5.77946	1.81E-08	4.24E-07	8.8256943
C5AR1	0.5459	1.4599	8.15548	7.16876	5.48E-12	2.99E-10	16.690972
TUSC1	0.5456	1.4596	8.49808	4.27487	2.54E-05	0.0002845	1.8851251
GPR157	0.5426	1.4566	8.46102	7.58740	3.77E-13	2.54E-11	19.301656
TBC1D9	0.5423	1.4563	10.47402	5.99234	5.69E-09	1.52E-07	9.9457976
ZC3H12C	0.5400	1.4540	8.03909	5.67213	3.21E-08	7.22E-07	8.273303
KYNU	0.5360	1.4499	11.24086	7.73464	1.43E-13	1.10E-11	20.244164
TNC	0.5352	1.4492	9.99585	4.51830	8.85E-06	0.0001117	2.8864262
ADAM12	0.5349	1.4489	7.87476	2.93568	0.0035748	0.0194444	-2.7146917
EBI3	0.5329	1.4468	9.37597	3.65534	0.0003011	0.0024742	-0.4380209
ANTXR1	0.5287	1.4426	9.56262	3.40324	0.0007526	0.0054048	-1.2881845
DOCK4	0.5278	1.4417	8.75397	6.65351	1.28E-10	4.87E-09	13.625002
TMEM176A	0.5277	1.4417	10.02603	9.17648	6.20E-18	1.34E-15	30.077346
PREX1	0.5270	1.4410	9.13168	5.31060	2.08E-07	3.94E-06	6.475234
PLAU	0.5258	1.4397	9.21721	6.83125	4.40E-11	1.93E-09	14.663654
CEBPA	0.5238	1.4377	9.21561	10.74654	3.89E-23	2.71E-20	41.833583
MITF	0.5224	1.4363	8.88382	6.87508	3.37E-11	1.53E-09	14.922879
CPNE8	0.5217	1.4357	6.17559	6.51092	2.97E-10	1.07E-08	12.806626
ACTN1	0.5214	1.4354	10.39637	5.87424	1.09E-08	2.69E-07	9.3204081
GPR137B	0.5205	1.4345	10.72896	5.51737	7.22E-08	1.53E-06	7.4916805
CXCL16	0.5197	1.4337	8.57413	4.78418	2.65E-06	3.81E-05	4.0353212
JAK2	0.5189	1.4329	8.92122	5.03589	8.05E-07	1.32E-05	5.17506
GPNMB	0.5180	1.4319	13.73162	9.52442	4.74E-19	1.24E-16	32.598252
HK3	0.5158	1.4298	7.30763	6.01600	4.99E-09	1.37E-07	10.072281
COL6A1	0.5155	1.4295	10.83658	4.12421	4.77E-05	0.0004943	1.2901006
SLC7A11	0.5111	1.4251	7.39607	2.92746	0.0036679	0.0198309	-2.7379837

GXYLT2	0.5102	1.4243	7.61125	2.91104	0.0038609	0.0206076	-2.7843494
PIR	0.5096	1.4236	6.98972	5.00779	9.22E-07	1.47E-05	5.0453457
METTL21B	0.5081	1.4222	6.73902	6.69487	1.00E-10	3.92E-09	13.864915
CDH11	0.5069	1.4210	9.46776	3.82810	0.000156	0.0014147	0.1767176
FMNL2	0.5052	1.4193	10.16255	6.62338	1.53E-10	5.69E-09	13.450969
RTN1	0.5050	1.4192	7.63334	7.62155	3.01E-13	2.10E-11	19.51914
ACP2	0.5027	1.4169	9.96279	8.71153	1.77E-16	2.93E-14	26.793582
ATP1A4	0.5021	1.4163	6.14962	6.44689	4.32E-10	1.47E-08	12.44354
TTYH2	0.5019	1.4161	8.03755	7.49689	6.78E-13	4.34E-11	18.728474
PAPSS2	0.5015	1.4157	10.37880	6.91472	2.64E-11	1.24E-09	15.158413
PMEPA1	0.5009	1.4151	8.18703	3.25264	0.0012683	0.0084203	-1.7691666
FLVCR2	0.5008	1.4150	7.68013	6.24583	1.37E-09	4.19E-08	11.321245
BCL2A1	0.4970	1.4113	12.08723	3.80368	0.0001714	0.0015372	0.0882465
SLC2A3	0.4962	1.4105	9.69767	5.11835	5.39E-07	9.10E-06	5.5592197
SSPN	0.4961	1.4104	7.96307	4.14459	4.39E-05	0.000459	1.3694766
ANXA4	0.4946	1.4089	10.24010	6.30538	9.78E-10	3.10E-08	11.650775
CYBB	0.4935	1.4078	12.07741	8.05272	1.71E-14	1.51E-12	22.321439
CHST11	0.4933	1.4077	9.51394	6.93787	2.29E-11	1.09E-09	15.296393
SGK1	0.4924	1.4068	12.47676	6.87785	3.31E-11	1.52E-09	14.939317
PLA2G4C	0.4918	1.4062	7.40287	6.85656	3.77E-11	1.70E-09	14.813202
DPYSL3	0.4907	1.4051	8.02796	4.35638	1.79E-05	0.000209	2.2149448
GFPT2	0.4868	1.4014	7.55516	4.47105	1.09E-05	0.0001344	2.6882441
GP1BA	0.4857	1.4002	7.79646	5.15632	4.48E-07	7.68E-06	5.7378645
TRAF1	0.4845	1.3991	8.29341	4.25567	2.76E-05	0.0003053	1.8082191
GJA1	0.4841	1.3987	10.37203	3.40533	0.000747	0.0053774	-1.2813603
CLEC4D	0.4818	1.3965	6.12426	6.70404	9.46E-11	3.74E-09	13.91822
C1S	0.4806	1.3953	11.61179	6.72260	8.47E-11	3.36E-09	14.026353
CTSD	0.4804	1.3952	9.92008	8.08818	1.35E-14	1.24E-12	22.556454
TNFSF15	0.4792	1.3940	7.54808	3.57384	0.0004073	0.0031987	-0.719001
PLXDC2	0.4778	1.3926	8.54200	4.58578	6.55E-06	8.58E-05	3.172579
CTSZ	0.4753	1.3902	12.39757	6.35807	7.23E-10	2.35E-08	11.944383
TPBG	0.4735	1.3885	8.48119	4.24372	2.90E-05	0.0003188	1.7605208
ST3GAL6	0.4710	1.3860	6.07308	3.87051	0.0001322	0.0012331	0.3315673
LILRB1	0.4683	1.3834	9.23591	6.77699	6.10E-11	2.55E-09	14.344451
EPB41L3	0.4676	1.3828	8.19572	6.40718	5.44E-10	1.81E-08	12.219693
SQRDL	0.4665	1.3817	11.70596	6.95488	2.07E-11	9.98E-10	15.398015
RIN2	0.4655	1.3808	10.40866	5.11201	5.56E-07	9.33E-06	5.5294995
YAP1	0.4652	1.3805	8.06287	4.24578	2.88E-05	0.0003172	1.7687549
GPX8	0.4649	1.3802	7.59790	3.12707	0.0019315	0.0118051	-2.1546258
SERPINF1	0.4649	1.3802	11.71958	5.88253	1.04E-08	2.60E-07	9.3639751
MCTP1	0.4641	1.3795	8.12135	4.14316	4.41E-05	0.0004609	1.363878
NEK6	0.4630	1.3784	10.09439	5.10659	5.71E-07	9.53E-06	5.5041209
RAB42	0.4628	1.3782	9.02429	7.53926	5.15E-13	3.40E-11	18.996225
SLC7A7	0.4625	1.3779	10.74723	7.59920	3.49E-13	2.38E-11	19.376768
CLIC6	0.4596	1.3751	7.12293	3.19351	0.0015486	0.0099497	-1.9524511

FNIP2	0.4579	1.3735	9.85552	6.80776	5.07E-11	2.19E-09	14.525231
MICAL2	0.4567	1.3724	8.88482	4.74041	3.24E-06	4.59E-05	3.8422883
IER3	0.4560	1.3717	10.06495	5.40318	1.30E-07	2.59E-06	6.9263582
EMILIN1	0.4546	1.3704	7.85015	5.58250	5.15E-08	1.12E-06	7.81849
RAB20	0.4539	1.3697	9.92588	10.23325	2.16E-21	1.13E-18	37.887379
RGL1	0.4517	1.3677	9.99420	6.33575	8.22E-10	2.64E-08	11.819782
PPAP2B	0.4509	1.3669	10.06162	5.63080	3.99E-08	8.81E-07	8.0628462
NDP	0.4491	1.3652	5.06076	3.56700	0.0004176	0.0032684	-0.7423031
PCOLCE	0.4487	1.3648	9.21253	4.15614	4.18E-05	0.000442	1.4146203
OLFML2B	0.4472	1.3634	8.58632	4.11576	4.94E-05	0.0005101	1.257299
LOC285957	0.4468	1.3630	5.60033	3.98865	8.28E-05	0.0008133	0.7710976
CTSS	0.4463	1.3626	12.08030	6.76823	6.44E-11	2.66E-09	14.293077
FAM49A	0.4440	1.3604	9.29079	3.91774	0.0001098	0.0010442	0.5058603
AOAH	0.4432	1.3596	8.53611	7.43918	9.83E-13	6.05E-11	18.365533
FAM20A	0.4431	1.3595	7.29617	5.99555	5.59E-09	1.51E-07	9.9629327
KIAA0513	0.4406	1.3572	6.99816	6.39977	5.68E-10	1.88E-08	12.178037
IL13RA1	0.4405	1.3571	10.26094	5.67616	3.14E-08	7.10E-07	8.2939069
HSPA6	0.4402	1.3568	7.98360	2.65957	0.008227	0.0375025	-3.4635313
SMIM3	0.4398	1.3564	8.41311	6.11225	2.92E-09	8.37E-08	10.590832
ZNF77	0.4381	1.3548	5.67940	3.22167	0.0014086	0.0092102	-1.8655318
TYMP	0.4372	1.3540	9.03423	7.93652	3.75E-14	3.22E-12	21.556127
BICC1	0.4371	1.3539	6.70545	3.61628	0.0003483	0.0028243	-0.5734075
PTAFR	0.4363	1.3531	10.17241	8.95049	3.20E-17	5.74E-15	28.468781
C1RL	0.4361	1.3529	8.43010	7.44459	9.50E-13	5.96E-11	18.399445
SH3PXD2B	0.4356	1.3525	8.14431	4.89790	1.56E-06	2.38E-05	4.5440509
CSF1R	0.4354	1.3522	8.23179	6.50869	3.01E-10	1.07E-08	12.793975
DRAM1	0.4344	1.3513	10.02725	7.00462	1.52E-11	7.70E-10	15.696137
ADAP1	0.4342	1.3511	8.36757	5.04708	7.63E-07	1.25E-05	5.226845
GADD45G	0.4341	1.3511	6.53649	6.62164	1.55E-10	5.71E-09	13.440948
NDRG1	0.4341	1.3511	10.65095	5.54491	6.26E-08	1.34E-06	7.6294871
LOC100132891	0.4326	1.3496	7.19538	5.80468	1.58E-08	3.79E-07	8.9566911
C3AR1	0.4324	1.3495	9.79850	4.72784	3.44E-06	4.84E-05	3.7871058
ASAP2	0.4322	1.3493	7.35364	5.46738	9.35E-08	1.93E-06	7.2429997
ALDH2	0.4280	1.3453	10.98543	4.66714	4.54E-06	6.19E-05	3.522553
FRMD6	0.4266	1.3440	8.84366	3.22602	0.0013881	0.0091139	-1.8520518
KMO	0.4254	1.3429	9.60623	5.17651	4.05E-07	7.03E-06	5.8333418
PLD3	0.4242	1.3418	8.73906	5.05773	7.24E-07	1.19E-05	5.2762966
FAM171A1	0.4236	1.3412	7.80825	2.92620	0.0036824	0.0198749	-2.7415442
ZBED6CL	0.4211	1.3389	9.00477	7.17596	5.24E-12	2.91E-10	16.734962
TCN2	0.4201	1.3380	8.44220	8.13763	9.61E-15	9.58E-13	22.885251
LRP12	0.4192	1.3372	5.93130	4.56700	7.12E-06	9.18E-05	3.0925749
NRP2	0.4184	1.3364	7.97902	5.57581	5.33E-08	1.15E-06	7.7847687
TSPO	0.4171	1.3352	10.95063	7.07678	9.73E-12	5.13E-10	16.131471
MOB3C	0.4170	1.3352	8.13231	3.22536	0.0013912	0.0091249	-1.8541169
UPP1	0.4156	1.3339	8.45750	4.56492	7.19E-06	9.23E-05	3.0837449

IGDCC4	0.4153	1.3336	6.01166	4.13814	4.51E-05	0.000469	1.3443325
RAI14	0.4150	1.3333	8.82097	4.61384	5.77E-06	7.66E-05	3.2926996
TIMP1	0.4149	1.3332	13.19170	3.90096	0.0001173	0.0011057	0.4436985
LTBP2	0.4138	1.3322	8.50996	2.98224	0.0030863	0.0171745	-2.5815097
SVIL	0.4105	1.3291	7.82320	3.66061	0.0002953	0.0024387	-0.4196757
CD4	0.4093	1.3280	8.41899	6.90566	2.79E-11	1.30E-09	15.104501
HTRA1	0.4087	1.3275	8.95234	3.03747	0.0025866	0.0149226	-2.4209668
TMEM200C	0.4070	1.3260	6.09168	5.98098	6.05E-09	1.60E-07	9.8851936
IFI30	0.4051	1.3242	13.63700	8.60903	3.66E-16	5.22E-14	26.083434
SOCS1	0.4036	1.3228	8.16353	5.74387	2.19E-08	5.04E-07	8.641582
MYADM	0.4019	1.3213	9.84109	4.81717	2.27E-06	3.34E-05	4.1818406
UBE2D1	0.4016	1.3209	10.55901	9.89927	2.81E-20	8.40E-18	35.370775
FAM198B	0.4000	1.3195	10.31028	4.14692	4.35E-05	0.0004561	1.3785631
MRAS	0.3987	1.3183	8.16467	7.01796	1.40E-11	7.15E-10	15.776364
IL3RA	0.3969	1.3167	7.87821	7.20259	4.43E-12	2.48E-10	16.898054
CEMIP	0.3965	1.3163	7.39598	2.79902	0.0054441	0.0271858	-3.0941131
GSN	0.3927	1.3128	10.74468	6.29338	1.05E-09	3.29E-08	11.584165
SAMD4A	0.3926	1.3128	8.67042	6.21414	1.64E-09	4.94E-08	11.146821
FXYD6	0.3908	1.3111	7.92227	6.46398	3.91E-10	1.35E-08	12.540148
SOWAHC	0.3881	1.3087	6.86360	4.87531	1.73E-06	2.61E-05	4.4422035
ACVRL1	0.3870	1.3077	8.36199	7.14892	6.20E-12	3.36E-10	16.569815
IL17RA	0.3849	1.3057	9.33937	5.18616	3.86E-07	6.77E-06	5.8790722
TMEM173	0.3845	1.3054	7.58972	6.00450	5.32E-09	1.45E-07	10.010772
OSMR	0.3839	1.3049	8.75939	4.48028	1.05E-05	0.0001301	2.7267974
GLIS2	0.3834	1.3045	7.34717	3.46238	0.0006099	0.0044884	-1.0937855
PLXNC1	0.3830	1.3041	10.54623	6.78453	5.83E-11	2.46E-09	14.38865
FAM213B	0.3816	1.3028	8.68288	5.30823	2.10E-07	3.96E-06	6.4637608
PLEK	0.3808	1.3020	11.51820	6.50291	3.11E-10	1.10E-08	12.761062
SLC2A6	0.3807	1.3020	9.21628	6.83184	4.38E-11	1.93E-09	14.667157
COL8A2	0.3805	1.3018	7.36177	3.54659	0.00045	0.0034697	-0.8116446
LYZ	0.3801	1.3015	13.80866	10.60407	1.20E-22	7.52E-20	40.729164
ETHE1	0.3795	1.3009	9.40151	5.36524	1.58E-07	3.09E-06	6.7407047
ATP6V1B2	0.3794	1.3008	10.77934	9.40832	1.13E-18	2.82E-16	31.751303
RRAS	0.3783	1.2998	8.31586	8.32589	2.64E-15	3.19E-13	24.148848
HEY1	0.3758	1.2976	8.20834	3.00431	0.0028768	0.0161955	-2.517688
MYO1B	0.3750	1.2968	8.27172	4.59379	6.32E-06	8.31E-05	3.2067837
B3GNT2	0.3746	1.2965	10.97816	4.62316	5.54E-06	7.39E-05	3.3326935
PLD1	0.3741	1.2960	7.38700	5.93909	7.62E-09	1.98E-07	9.6625827
MYCL	0.3741	1.2960	6.30130	6.15597	2.28E-09	6.67E-08	10.828543
SIRPA	0.3732	1.2952	9.24378	5.17966	3.99E-07	6.94E-06	5.8482344
APLNR	0.3732	1.2952	7.41801	3.74258	0.0002167	0.0018838	-0.1308551
PTGFR	0.3729	1.2949	5.08850	4.55480	7.52E-06	9.64E-05	3.0407432
LY75	0.3727	1.2947	11.10841	5.30860	2.10E-07	3.96E-06	6.4655332
FAM20C	0.3697	1.2921	8.07913	3.94198	9.97E-05	0.0009588	0.5960243
DUSP10	0.3692	1.2916	8.71556	4.80554	2.40E-06	3.49E-05	4.1301096

LITAF	0.3684	1.2909	11.77421	4.61148	5.83E-06	7.73E-05	3.2825726
SLCO2B1	0.3677	1.2903	9.40287	5.19522	3.69E-07	6.51E-06	5.9220907
IL1R1	0.3674	1.2901	9.06480	4.88167	1.68E-06	2.55E-05	4.4708321
FAM50B	0.3648	1.2877	6.87509	4.46769	1.11E-05	0.0001359	2.6741968
DPYD	0.3646	1.2875	10.18964	7.05031	1.15E-11	5.95E-10	15.971385
CRISPLD2	0.3625	1.2856	8.36176	3.01968	0.0027387	0.0155434	-2.4729707
CTSA	0.3624	1.2856	10.80857	5.94913	7.21E-09	1.89E-07	9.7158508
TEAD1	0.3613	1.2846	8.24499	2.93161	0.0036206	0.0196766	-2.7262257
PPM1M	0.3611	1.2844	7.61969	3.65902	0.000297	0.0024468	-0.4252072
LGALS3BP	0.3610	1.2843	8.84250	4.10109	5.25E-05	0.0005374	1.2004808
CTNND1	0.3608	1.2841	8.53914	4.46475	1.12E-05	0.0001371	2.661965
GHRL	0.3606	1.2840	5.15181	5.76075	2.00E-08	4.64E-07	8.7287849
CSF2RB	0.3605	1.2839	11.16474	8.86608	5.88E-17	1.03E-14	27.873951
SNX9	0.3586	1.2822	9.18502	4.04068	6.71E-05	0.000671	0.96847
SDC2	0.3586	1.2822	8.27317	3.08204	0.0022387	0.0131825	-2.2894005
EML1	0.3584	1.2820	6.44927	3.20482	0.0014909	0.0096678	-1.9176178
C1R	0.3563	1.2801	9.85769	3.97926	8.60E-05	0.0008432	0.7357109
NFE2L3	0.3559	1.2798	8.88801	5.57497	5.35E-08	1.15E-06	7.7805448
FOSL2	0.3535	1.2776	7.95292	3.77577	0.0001909	0.0016921	-0.0122371
GNA15	0.3534	1.2776	8.01179	6.64702	1.33E-10	5.00E-09	13.587479
KLHDC8B	0.3533	1.2775	9.13359	7.85693	6.38E-14	5.13E-12	21.036183
OSCAR	0.3530	1.2772	6.08109	6.02998	4.62E-09	1.27E-07	10.147179
VDR	0.3515	1.2759	9.01976	3.74867	0.0002117	0.0018534	-0.1091485
CYFIP1	0.3513	1.2757	10.67548	6.68508	1.06E-10	4.13E-09	13.807985
PFKFB3	0.3495	1.2741	9.61881	3.70971	0.0002455	0.0020822	-0.2473766
NPL	0.3481	1.2729	10.42450	10.90803	1.08E-23	9.68E-21	43.093545
MB21D2	0.3478	1.2726	7.13858	5.66418	3.35E-08	7.51E-07	8.2327303
ACO1	0.3478	1.2726	9.05525	5.42067	1.19E-07	2.40E-06	7.012349
MIR6787	0.3476	1.2724	8.95972	4.63315	5.29E-06	7.13E-05	3.3756958
C17orf96	0.3454	1.2705	8.11308	6.07370	3.62E-09	1.02E-07	10.38239
GAS7	0.3453	1.2704	8.46293	5.39549	1.35E-07	2.68E-06	6.8886357
SCPEP1	0.3445	1.2697	10.58923	6.07447	3.61E-09	1.02E-07	10.38654
RAB31	0.3444	1.2696	10.82446	3.76578	0.0001983	0.0017483	-0.0480437
SERPINB9	0.3429	1.2683	11.60062	3.70992	0.0002453	0.0020822	-0.2466084
IRF2BPL	0.3428	1.2682	10.54030	4.68482	4.18E-06	5.80E-05	3.5992855
TSHR	0.3426	1.2680	4.80951	2.83415	0.0048935	0.0249321	-2.9982094
PARVG	0.3414	1.2670	8.64133	3.09751	0.0021284	0.0126876	-2.2432995
VEGFC	0.3408	1.2664	7.58481	4.69467	4.00E-06	5.56E-05	3.642154
TFEC	0.3363	1.2625	9.87487	9.96832	1.66E-20	5.79E-18	35.887579
PLXND1	0.3363	1.2625	9.56657	5.40447	1.29E-07	2.58E-06	6.9327027
DBNDD2	0.3357	1.2620	9.59857	4.91843	1.41E-06	2.18E-05	4.6369884
LINC01137	0.3322	1.2589	6.33660	4.22701	3.11E-05	0.0003403	1.6940531
GM2A	0.3318	1.2586	12.32450	5.24809	2.84E-07	5.14E-06	6.1742547
SDSL	0.3314	1.2582	7.25667	6.96170	1.98E-11	9.65E-10	15.438763
EMP2	0.3311	1.2580	8.22461	3.11590	0.0020038	0.0121292	-2.1882249

TM6SF1	0.3310	1.2579	7.83509	5.02273	8.58E-07	1.39E-05	5.1142142
MALT1	0.3303	1.2573	8.80393	3.50906	0.0005157	0.0038951	-0.9381534
SLC29A3	0.3279	1.2552	8.95038	8.60062	3.88E-16	5.30E-14	26.025402
CD84	0.3277	1.2550	10.53397	6.98094	1.76E-11	8.70E-10	15.554047
AK8	0.3259	1.2535	6.89453	5.42188	1.18E-07	2.40E-06	7.0182951
PHLDA2	0.3252	1.2528	6.67192	4.44368	1.23E-05	0.0001483	2.5742771
THY1	0.3240	1.2518	9.26628	4.33632	1.96E-05	0.0002266	2.1332318
IRAK3	0.3227	1.2507	7.14650	7.23680	3.57E-12	2.08E-10	17.108179
IFI35	0.3224	1.2504	9.07143	3.54419	0.0004539	0.0034942	-0.8197676
IL18	0.3194	1.2478	9.98758	10.81361	2.29E-23	1.79E-20	42.355864
DDR2	0.3193	1.2477	8.67437	3.61002	0.0003564	0.0028793	-0.5949816
ARHGEF10L	0.3190	1.2475	7.87941	7.10616	8.10E-12	4.35E-10	16.309599
LAMB1	0.3173	1.2460	8.84365	2.78361	0.0057027	0.0280751	-3.1357934
MYO1F	0.3155	1.2444	8.08921	7.70072	1.79E-13	1.32E-11	20.025939
SQSTM1	0.3153	1.2442	10.65133	6.79212	5.57E-11	2.36E-09	14.433256
CA11	0.3147	1.2437	6.12509	5.31156	2.07E-07	3.93E-06	6.4798464
APOL4	0.3125	1.2419	6.20535	4.53295	8.29E-06	0.0001054	2.9482069
TRIM16	0.3121	1.2415	7.51343	5.29374	2.26E-07	4.22E-06	6.3937485
PPP1R18	0.3105	1.2401	10.81873	5.26713	2.58E-07	4.74E-06	6.2656136
PXDC1	0.3098	1.2395	8.26782	5.78968	1.71E-08	4.07E-07	8.878738
VAV3	0.3097	1.2395	7.77784	3.38886	0.0007917	0.005634	-1.3349741
TIMP2	0.3097	1.2394	10.96859	3.26606	0.0012116	0.0081337	-1.7271285
LAMA4	0.3088	1.2386	8.21762	2.80892	0.0052834	0.0265312	-3.0671874
CD68	0.3077	1.2377	8.09113	8.18886	6.78E-15	7.33E-13	23.227275
APP	0.3074	1.2374	9.94904	3.95138	9.61E-05	0.0009307	0.6311615
CCND1	0.3069	1.2370	7.29608	6.48352	3.49E-10	1.22E-08	12.650939
SLC22A23	0.3058	1.2361	7.64285	4.48969	1.00E-05	0.0001258	2.766183
CSTA	0.3057	1.2360	11.84768	8.31353	2.88E-15	3.41E-13	24.065341
PRKCDDBP	0.3056	1.2360	7.77531	4.63178	5.32E-06	7.16E-05	3.3697741
LACTB	0.3047	1.2352	10.13339	7.88837	5.17E-14	4.33E-12	21.241174
RBM47	0.3040	1.2346	9.87658	5.25536	2.74E-07	4.97E-06	6.2091103
GNS	0.3038	1.2344	10.85947	5.01256	9.01E-07	1.45E-05	5.0673362
GABBR1	0.3026	1.2334	12.23394	11.38658	2.30E-25	3.61E-22	46.874563
CRYL1	0.3020	1.2329	7.79093	4.15210	4.25E-05	0.0004479	1.398813
HEPH	0.3020	1.2328	6.20915	2.72282	0.0068359	0.0324085	-3.2981977
UBASH3B	0.3020	1.2328	6.73238	2.78389	0.0056979	0.0280736	-3.1350414
CLN5	0.3019	1.2328	9.38245	5.02197	8.61E-07	1.39E-05	5.1107146
ITGAV	0.3010	1.2320	11.37869	3.41160	0.0007307	0.0052718	-1.26091
MSC	0.3004	1.2315	6.63222	5.78947	1.72E-08	4.07E-07	8.8776584
CTSLP8	0.2991	1.2304	5.71506	5.46388	9.52E-08	1.96E-06	7.2256735
CUL9	0.2990	1.2303	8.32412	6.64477	1.35E-10	5.04E-09	13.574493
CAPN3	0.2965	1.2282	7.67469	3.26236	0.001227	0.0082019	-1.7387347
MGAT4A	0.2953	1.2271	9.72957	5.34584	1.74E-07	3.39E-06	6.6461656
AC017002.2	0.2950	1.2269	7.22612	2.90378	0.0039491	0.0209894	-2.8047805
NOTCH2	0.2950	1.2268	10.75410	5.27439	2.49E-07	4.62E-06	6.3005288

PAG1	0.2946	1.2266	10.87002	3.24328	0.0013093	0.0086235	-1.7983823
MOB3A	0.2943	1.2263	9.55583	3.52190	0.0004922	0.0037406	-0.8950152
S100A11	0.2937	1.2257	10.79228	4.57787	6.79E-06	8.86E-05	3.1388597
EGLN3	0.2933	1.2255	6.81788	4.36119	1.76E-05	0.0002051	2.2345495
SLC26A11	0.2931	1.2252	8.96729	6.66853	1.17E-10	4.51E-09	13.711989
DAPK1	0.2929	1.2251	8.93032	6.36182	7.07E-10	2.31E-08	11.965332
LMNA	0.2928	1.2250	9.35651	5.03466	8.10E-07	1.32E-05	5.1693641
PLIN2	0.2919	1.2243	11.16464	4.85820	1.88E-06	2.82E-05	4.3652709
SEMA4D	0.2918	1.2242	8.07604	3.57465	0.000406	0.0031939	-0.7162321
ALAS1	0.2910	1.2235	10.16842	5.34128	1.78E-07	3.46E-06	6.6240292
CD97	0.2903	1.2229	9.13866	6.48578	3.44E-10	1.21E-08	12.663725
MPP1	0.2898	1.2224	9.55554	3.72185	0.0002344	0.0020076	-0.2044229
RNF19B	0.2894	1.2221	8.97956	5.88107	1.05E-08	2.61E-07	9.3562776
LARP6	0.2894	1.2221	6.56688	4.52947	8.42E-06	0.0001066	2.9335032
CD44	0.2893	1.2220	12.74983	4.56538	7.18E-06	9.23E-05	3.0856647
TMEM51	0.2892	1.2220	7.77225	6.68385	1.07E-10	4.14E-09	13.80088
MAFF	0.2876	1.2206	8.96543	3.71799	0.0002379	0.0020317	-0.2181081
FNDC3B	0.2864	1.2196	10.22012	4.27784	2.51E-05	0.0002814	1.8970394
SEMA4A	0.2859	1.2191	9.93410	3.10934	0.0020475	0.0123182	-2.207908
C10orf11	0.2858	1.2191	7.21459	7.83748	7.26E-14	5.69E-12	20.909659
GSDMD	0.2858	1.2191	7.97777	3.95543	9.45E-05	0.0009187	0.6462929
SH3BGRL3	0.2856	1.2189	11.30702	4.18258	3.75E-05	0.0003993	1.5183767
GPR85	0.2856	1.2189	5.98710	6.39200	5.94E-10	1.95E-08	12.13443
HSD17B14	0.2853	1.2186	7.42249	7.01922	1.39E-11	7.15E-10	15.783984
VIM	0.2850	1.2184	14.33911	5.42799	1.14E-07	2.34E-06	7.0483946
FAT1	0.2847	1.2181	7.85659	3.00788	0.0028442	0.016057	-2.5073134
PTGR1	0.2845	1.2180	7.75346	5.46280	9.57E-08	1.96E-06	7.2203018
PTGES	0.2844	1.2179	7.71768	3.61073	0.0003555	0.0028755	-0.5925534
TMEM178B	0.2843	1.2179	6.71349	4.44513	1.22E-05	0.0001477	2.5803092
FTH1	0.2838	1.2174	14.82939	7.43309	1.02E-12	6.23E-11	18.32731
MAFB	0.2820	1.2159	10.90652	5.92537	8.22E-09	2.11E-07	9.5899397
CTTNBP2NL	0.2801	1.2143	9.25518	5.53603	6.56E-08	1.39E-06	7.5850117
GRINA	0.2780	1.2126	8.06789	5.84990	1.24E-08	3.00E-07	9.1927575
C14orf182	0.2780	1.2125	5.28707	2.91948	0.0037606	0.0202111	-2.7605579
IL15RA	0.2775	1.2121	8.38085	6.74083	7.59E-11	3.03E-09	14.132716
KDM7A	0.2769	1.2116	8.44878	3.83458	0.0001521	0.0013856	0.2002674
DNASE2B	0.2768	1.2115	5.13114	3.59753	0.0003733	0.002984	-0.6379265
SPARC	0.2767	1.2114	12.73939	3.73504	0.000223	0.0019279	-0.157662
ARHGAP42	0.2746	1.2096	6.38423	5.13370	5.00E-07	8.51E-06	5.6313253
LDLR	0.2739	1.2091	7.76251	3.25984	0.0012375	0.0082639	-1.7466257
SCARB1	0.2737	1.2089	8.95973	3.59724	0.0003737	0.002984	-0.6389204
FSTL1	0.2733	1.2086	10.26409	2.78874	0.0056155	0.0277665	-3.1219529
ACE	0.2717	1.2072	6.44775	3.00299	0.002889	0.0162491	-2.5215036
SPHK1	0.2709	1.2066	7.68769	4.64396	5.04E-06	6.85E-05	3.4222796
UBE2F	0.2708	1.2065	9.73447	5.91140	8.87E-09	2.26E-07	9.5161405

ACVR1	0.2702	1.2060	8.22985	4.37267	1.67E-05	0.0001967	2.281496
ARAP2	0.2700	1.2058	8.78962	3.37649	0.0008268	0.005852	-1.3750956
SYNDIG1	0.2687	1.2047	5.51217	4.38752	1.57E-05	0.0001858	2.342381
NCF2	0.2682	1.2043	9.36346	3.27011	0.0011949	0.0080392	-1.714417
NAV2	0.2671	1.2034	7.32984	2.91280	0.0038398	0.0205303	-2.7794123
PGD	0.2671	1.2034	10.51658	3.74208	0.0002171	0.0018847	-0.1326098
WDFY3	0.2662	1.2026	7.17523	5.27613	2.47E-07	4.60E-06	6.3088974
PIK3CD	0.2656	1.2021	11.02062	3.25062	0.001277	0.0084466	-1.7754819
CTBS	0.2648	1.2015	8.16248	4.76841	2.85E-06	4.09E-05	3.9656083
CREG1	0.2643	1.2011	11.67803	6.76937	6.39E-11	2.66E-09	14.29972
CYP26B1	0.2642	1.2009	6.69987	3.06295	0.0023821	0.013922	-2.3459665
DENND5A	0.2640	1.2008	9.71179	5.41344	1.23E-07	2.48E-06	6.9767817
NINJ1	0.2630	1.2000	9.56700	4.08886	5.52E-05	0.0005613	1.1532598
ATP6AP1	0.2619	1.1991	10.29820	4.81178	2.33E-06	3.41E-05	4.1578457
ETV5	0.2610	1.1983	8.50228	3.16353	0.0017117	0.0107231	-2.0441585
C20orf194	0.2609	1.1982	7.86843	5.50521	7.69E-08	1.62E-06	7.4310417
TNFAIP3	0.2592	1.1968	11.54283	4.85539	1.90E-06	2.85E-05	4.3526859
RHOG	0.2590	1.1966	10.87449	4.91567	1.43E-06	2.20E-05	4.6244598
MPP7	0.2578	1.1956	5.11361	2.84116	0.0047899	0.0245438	-2.9789426
CDH13	0.2572	1.1951	5.50156	3.13128	0.0019048	0.0117106	-2.1419236
KAL1	0.2567	1.1947	7.45071	4.48039	1.05E-05	0.0001301	2.7272691
GRN	0.2561	1.1943	11.21323	4.23913	2.96E-05	0.0003245	1.7422343
CRIM1	0.2560	1.1941	7.90024	3.59486	0.0003769	0.0030056	-0.6470852
CHST2	0.2556	1.1939	9.94000	3.60883	0.000358	0.0028846	-0.5990683
APOC2	0.2553	1.1936	9.04941	3.95065	9.64E-05	0.000932	0.6284168
TBC1D2	0.2548	1.1932	6.94699	8.11596	1.11E-14	1.07E-12	22.740998
TMEM2	0.2542	1.1926	7.37513	2.59767	0.0098297	0.0431776	-3.6217271
MMP14	0.2537	1.1923	8.65720	5.80164	1.61E-08	3.84E-07	8.9408656
TRAFD1	0.2536	1.1922	9.42638	3.47288	0.0005874	0.0043496	-1.0589556
NAGK	0.2527	1.1914	10.95334	5.33232	1.86E-07	3.58E-06	6.5804613
CYP7B1	0.2523	1.1911	4.86991	4.28244	2.46E-05	0.000277	1.9155191
HEXB	0.2518	1.1907	11.14059	5.27400	2.50E-07	4.62E-06	6.2986796
HDGFRP3	0.2517	1.1906	8.53693	2.85986	0.0045231	0.0234449	-2.9273025
RRAGD	0.2515	1.1905	10.68353	3.47334	0.0005865	0.0043496	-1.057417
CD81	0.2515	1.1904	12.27859	6.25114	1.33E-09	4.10E-08	11.3505
HECW2	0.2512	1.1902	7.88454	3.70503	0.0002499	0.0021165	-0.2638874
GAS2L1	0.2499	1.1892	7.54861	5.17352	4.11E-07	7.11E-06	5.8191624
BCL3	0.2494	1.1887	8.42961	3.82684	0.0001567	0.0014197	0.1721101
FAM210B	0.2490	1.1884	9.18641	6.20705	1.71E-09	5.09E-08	11.107943
LIMA1	0.2486	1.1880	10.09510	2.70826	0.0071358	0.0335626	-3.3365856
NRIP1	0.2481	1.1876	10.28749	3.31916	0.0010095	0.0069699	-1.559205
FERMT2	0.2474	1.1871	9.17656	3.02453	0.0026965	0.0153733	-2.4588409
SLC46A3	0.2474	1.1870	8.57055	4.14569	4.37E-05	0.0004576	1.3737816
ARSD	0.2474	1.1870	7.26342	5.31231	2.06E-07	3.93E-06	6.4834788
LOC100505474	0.2472	1.1869	6.19843	4.67304	4.42E-06	6.06E-05	3.5481508

CD274	0.2469	1.1867	9.25178	9.03885	1.69E-17	3.32E-15	29.094971
PDE10A	0.2466	1.1864	5.75643	3.31439	0.0010263	0.0070559	-1.5744077
EFHD2	0.2464	1.1863	9.95167	5.33690	1.82E-07	3.52E-06	6.6027343
TNFAIP8L2	0.2454	1.1854	9.15441	6.45920	4.02E-10	1.37E-08	12.51311
GPX1	0.2449	1.1850	12.70850	8.61106	3.61E-16	5.22E-14	26.097461
ITPR1	0.2444	1.1846	10.19526	4.15247	4.25E-05	0.0004479	1.4002616
ALPK1	0.2444	1.1846	7.97397	5.74478	2.18E-08	5.03E-07	8.6463053
DLL1	0.2443	1.1845	6.83977	4.41927	1.37E-05	0.0001641	2.4731524
CSTB	0.2440	1.1843	13.54187	4.46125	1.14E-05	0.0001387	2.6473626
GPR124	0.2439	1.1842	7.39596	3.16373	0.0017106	0.0107231	-2.0435719
SMAD7	0.2432	1.1836	8.29434	2.73003	0.0066915	0.0318593	-3.2791057
ANTXR2	0.2429	1.1833	8.92817	5.40762	1.27E-07	2.55E-06	6.9481815
TTC7B	0.2427	1.1832	7.12453	3.14070	0.0018465	0.0113965	-2.113476
ARNTL2	0.2422	1.1828	7.93315	3.56755	0.0004168	0.0032659	-0.7404218
PDXK	0.2417	1.1824	9.51100	3.38270	0.000809	0.0057444	-1.3549836
SLC51A	0.2413	1.1821	5.45575	3.71313	0.0002423	0.0020666	-0.2352984
ABCC3	0.2409	1.1818	7.59706	5.38795	1.40E-07	2.77E-06	6.8517133
FGD5	0.2409	1.1817	7.21090	3.84932	0.0001436	0.0013277	0.2539911
ST3GAL1	0.2402	1.1812	8.79438	3.36525	0.00086	0.0060653	-1.411415
LHFPL2	0.2400	1.1810	9.80733	3.60668	0.0003609	0.0029002	-0.606488
HEBP1	0.2396	1.1807	9.34662	4.83637	2.08E-06	3.09E-05	4.2675215
PAQR8	0.2395	1.1806	8.71590	4.67127	4.45E-06	6.10E-05	3.5404569
CMTM3	0.2389	1.1801	9.71081	5.16059	4.38E-07	7.54E-06	5.7580211
MIR5193	0.2374	1.1789	8.12676	3.29789	0.0010863	0.0074281	-1.6267726
FERMT3	0.2373	1.1788	9.48831	5.00391	9.39E-07	1.50E-05	5.0274825
COL27A1	0.2367	1.1783	7.69656	3.46845	0.0005968	0.0044022	-1.073653
GPC4	0.2365	1.1781	6.12554	2.65824	0.0082588	0.0375927	-3.4669637
PLXNB2	0.2365	1.1781	9.28017	3.53580	0.000468	0.0035912	-0.8481333
ATP6V1A	0.2363	1.1780	12.29023	6.17116	2.10E-09	6.18E-08	10.911451
AHNAK	0.2359	1.1776	10.39759	2.88125	0.0042347	0.022252	-2.8678593
KEL	0.2353	1.1772	6.18615	3.29038	0.0011148	0.0075917	-1.6505433
ABHD5	0.2353	1.1771	7.36013	4.45044	1.19E-05	0.0001446	2.6023509
WIPI1	0.2352	1.1771	8.90420	5.00844	9.19E-07	1.47E-05	5.0483383
FGFR1	0.2352	1.1771	9.03339	3.01868	0.0027476	0.0155794	-2.4758939
IER2	0.2340	1.1761	11.49174	3.68617	0.0002683	0.0022482	-0.3302263
SLAMF8	0.2339	1.1760	10.51447	9.11282	9.87E-18	2.00E-15	29.621898
TSHZ3	0.2338	1.1760	6.76067	3.80613	0.0001698	0.001527	0.097106
NQO1	0.2338	1.1759	8.31011	3.14510	0.0018198	0.0112873	-2.1001683
TNFRSF14	0.2335	1.1757	8.63616	7.64460	2.59E-13	1.83E-11	19.66635
RBPMS	0.2333	1.1755	7.93297	3.12556	0.0019411	0.0118524	-2.1591722
TSPAN33	0.2330	1.1753	10.02803	3.74383	0.0002156	0.0018774	-0.1263869
FRMD4A	0.2322	1.1746	8.31886	2.74812	0.0063417	0.0305827	-3.231034
KIAA0930	0.2316	1.1741	9.89304	5.59430	4.84E-08	1.06E-06	7.8780293
NAV1	0.2314	1.1739	7.42657	2.81769	0.0051449	0.0259809	-3.0432914
GALNT6	0.2311	1.1737	8.26229	2.65483	0.0083408	0.0378664	-3.4757646

ST3GAL5	0.2305	1.1733	9.94857	5.22866	3.13E-07	5.56E-06	6.0813611
FKBP9	0.2304	1.1731	8.60177	2.90916	0.0038836	0.0207114	-2.7896595
GLA	0.2303	1.1731	10.61026	5.49208	8.23E-08	1.72E-06	7.3656782
MAN2B1	0.2285	1.1716	10.62630	4.66170	4.65E-06	6.33E-05	3.4989765
ANPEP	0.2277	1.1710	6.22909	4.38482	1.59E-05	0.0001877	2.331292
MIR100HG	0.2264	1.1699	6.64298	4.88607	1.65E-06	2.51E-05	4.4906404
ACSL4	0.2259	1.1695	8.30060	3.77483	0.0001915	0.0016958	-0.0156135
RNF217	0.2252	1.1689	6.11816	3.63101	0.0003297	0.0026949	-0.522509
TNS3	0.2230	1.1671	11.89923	3.11035	0.0020407	0.0123063	-2.2048853
GLUL	0.2220	1.1663	13.04116	5.49352	8.17E-08	1.72E-06	7.3728375
SGPL1	0.2210	1.1655	9.98245	6.74132	7.57E-11	3.03E-09	14.135619
EHBP1L1	0.2206	1.1652	8.12469	4.63110	5.34E-06	7.16E-05	3.3668521
LOC100996717	0.2204	1.1650	8.80884	4.22068	3.20E-05	0.0003482	1.6689226
SNAI2	0.2203	1.1649	8.60080	2.94578	0.0034632	0.0189688	-2.685965
FUT4	0.2202	1.1649	7.75919	4.69550	3.99E-06	5.55E-05	3.6457946
PALLD	0.2196	1.1644	10.46422	3.84261	0.0001474	0.0013517	0.2295175
LOC645166	0.2195	1.1643	7.21151	2.83553	0.0048728	0.0248875	-2.9944026
TSPAN14	0.2185	1.1636	8.25076	4.66749	4.53E-06	6.19E-05	3.5240594
TRPV2	0.2178	1.1630	9.06487	5.85570	1.20E-08	2.93E-07	9.2231379
PARVA	0.2174	1.1627	7.13150	2.74306	0.0064379	0.0309186	-3.2445152
LIMS3	0.2168	1.1622	5.31107	2.81336	0.0052128	0.0262188	-3.0550976
CCL15	0.2163	1.1618	4.67458	3.30954	0.0010436	0.0071671	-1.5898201
FABP3	0.2155	1.1611	6.95830	3.66864	0.0002865	0.002379	-0.39164
ZFYVE16	0.2148	1.1606	9.13451	4.61013	5.87E-06	7.76E-05	3.2767427
ACVR1B	0.2146	1.1604	8.49676	3.25511	0.0012576	0.0083713	-1.7614207
FILIP1L	0.2144	1.1602	9.31878	2.90573	0.0039253	0.0208805	-2.7993106
ZNF697	0.2139	1.1598	6.71141	3.11003	0.0020429	0.0123063	-2.2058513
LINC00173	0.2132	1.1592	7.22210	2.90584	0.0039239	0.0208805	-2.799001
LCP1	0.2132	1.1592	12.93022	4.21405	3.29E-05	0.0003549	1.6426204
FGR	0.2131	1.1592	8.62810	8.49053	8.41E-16	1.08E-13	25.268879
PXN	0.2127	1.1589	7.94007	4.52937	8.42E-06	0.0001066	2.9330906
SLCO3A1	0.2118	1.1582	8.16012	2.95779	0.0033346	0.0183929	-2.6516831
ARHGAP30	0.2118	1.1581	9.32161	2.79988	0.0054298	0.0271361	-3.0917551
SNX18	0.2116	1.1580	9.78392	2.77338	0.0058807	0.0288158	-3.1633742
TNS1	0.2115	1.1579	8.48790	2.75772	0.0061627	0.0299871	-3.2053816
VASH1	0.2111	1.1576	7.56243	6.76497	6.56E-11	2.66E-09	14.273954
TLR1	0.2109	1.1574	8.51392	5.76755	1.93E-08	4.51E-07	8.7639717
SERPINH1	0.2108	1.1573	8.74723	2.62564	0.0090737	0.0405957	-3.5506835
ATP6V0D2	0.2105	1.1571	6.28017	3.19653	0.001533	0.0098594	-1.9431603
RIPK3	0.2101	1.1568	6.17891	3.66763	0.0002876	0.0023848	-0.3951468
THAP10	0.2101	1.1568	5.24999	5.24502	2.88E-07	5.20E-06	6.1595868
PLSCR1	0.2097	1.1564	11.31142	6.00009	5.45E-09	1.48E-07	9.9871847
NFKBIA	0.2087	1.1556	12.77834	4.92474	1.37E-06	2.12E-05	4.6656321
BMP2K	0.2085	1.1555	9.89488	4.21919	3.22E-05	0.0003498	1.6630001
MEGF9	0.2085	1.1555	8.31692	3.45266	0.0006315	0.0046146	-1.1259544

CMKLR1	0.2085	1.1554	8.59309	7.23039	3.72E-12	2.14E-10	17.068725
THSD4	0.2084	1.1554	7.00887	3.26470	0.0012172	0.008154	-1.7313869
GRB10	0.2081	1.1552	7.52250	2.93978	0.003529	0.0192557	-2.7030213
SLC6A6	0.2076	1.1548	9.71671	4.02731	7.09E-05	0.0007049	0.9175115
ASAHI	0.2074	1.1546	12.42146	8.57017	4.81E-16	6.29E-14	25.815603
ARRB1	0.2069	1.1542	7.58267	7.17071	5.41E-12	2.98E-10	16.702878
PSAP	0.2069	1.1542	13.62465	8.96469	2.89E-17	5.34E-15	28.56915
H2AFY2	0.2066	1.1540	7.09429	6.07130	3.67E-09	1.03E-07	10.369427
TCIRG1	0.2062	1.1537	9.91427	4.21425	3.28E-05	0.0003549	1.643416
STAT1	0.2057	1.1533	12.51881	6.28536	1.10E-09	3.43E-08	11.539703
ZYX	0.2056	1.1532	8.28874	3.08927	0.0021866	0.0129417	-2.2678904
ABHD16A	0.2056	1.1531	8.37972	4.79668	2.50E-06	3.62E-05	4.0907691
FLNA	0.2049	1.1526	9.04408	3.79844	0.0001749	0.0015619	0.0693206
LIN7A	0.2047	1.1525	6.13321	3.66380	0.0002918	0.0024161	-0.4085422
LOC645984	0.2037	1.1516	5.03379	4.26455	2.66E-05	0.0002961	1.8437529
SLC39A11	0.2036	1.1516	9.20228	3.17957	0.0016226	0.0102861	-1.9951787
SRC	0.2031	1.1512	8.02584	3.87577	0.0001295	0.0012116	0.350869
BOK	0.2026	1.1508	6.43297	3.03326	0.0026218	0.0150257	-2.4332974
SLC37A2	0.2019	1.1503	5.74537	4.72649	3.46E-06	4.86E-05	3.7811886
MAP7D1	0.2014	1.1498	8.92499	5.02785	8.37E-07	1.36E-05	5.1378688
LPCAT2	0.2009	1.1494	6.90762	5.46868	9.29E-08	1.92E-06	7.2494809
PRRX1	0.2007	1.1493	9.67395	4.01085	7.57E-05	0.0007509	0.8550388
AVP11	0.2000	1.1487	7.26395	4.19551	3.55E-05	0.0003803	1.569327
WDFY1	0.1987	1.1477	10.84225	3.11689	0.0019973	0.0121016	-2.1852585
SRGAP1	0.1986	1.1476	6.13613	3.09760	0.0021278	0.0126876	-2.2430306
KIAA0247	0.1984	1.1474	10.64726	4.00904	7.63E-05	0.0007545	0.8481768
NABP1	0.1979	1.1470	9.98533	4.48858	1.01E-05	0.0001262	2.7615389
BLVRA	0.1979	1.1470	10.54071	4.55090	7.65E-06	9.79E-05	3.0242176
TGM2	0.1976	1.1468	7.75122	4.17905	3.80E-05	0.0004046	1.5044799
RARB	0.1975	1.1467	6.54342	5.18439	3.90E-07	6.79E-06	5.8706746
TBC1D10A	0.1973	1.1466	7.65689	4.59012	6.42E-06	8.43E-05	3.1911144
FMNL1	0.1967	1.1461	7.40609	2.91386	0.0038271	0.0204814	-2.7764007
S100A11P1	0.1967	1.1461	9.77481	4.41022	1.42E-05	0.0001694	2.4357938
TNIP2	0.1954	1.1451	9.81365	4.53309	8.29E-06	0.0001054	2.9488141
SP140L	0.1948	1.1445	9.10685	3.00114	0.0029061	0.0163312	-2.5268945
TRPM2	0.1944	1.1443	6.97375	3.18728	0.0015813	0.0101282	-1.9715586
VPS37C	0.1944	1.1443	9.77518	5.08320	6.40E-07	1.06E-05	5.3948304
SLITRK4	0.1942	1.1441	5.01408	3.18110	0.0016143	0.0102457	-1.9905027
LOC101928830	0.1942	1.1441	12.72881	3.95383	9.52E-05	0.0009231	0.6403211
LGALS9	0.1929	1.1431	7.80784	4.04516	6.59E-05	0.00066	0.985551
MAP1LC3A	0.1924	1.1427	8.29017	3.94322	9.93E-05	0.0009556	0.6006457
VAC14	0.1921	1.1425	8.07347	3.57598	0.0004041	0.0031863	-0.711686
RSPO3	0.1913	1.1418	7.85199	4.31969	2.10E-05	0.0002389	2.0657905
SLC8B1	0.1910	1.1416	6.75214	4.34246	1.91E-05	0.0002211	2.1582283
ARNTL	0.1900	1.1408	8.10349	4.73203	3.37E-06	4.76E-05	3.8054832

LAMP2	0.1900	1.1408	11.05550	4.02045	7.29E-05	0.0007236	0.891457
IFNGR1	0.1899	1.1407	11.86242	6.89474	2.99E-11	1.38E-09	15.039587
SLC15A3	0.1894	1.1403	9.54144	3.30773	0.0010501	0.0072041	-1.5955695
RGS3	0.1890	1.1400	8.91152	4.46153	1.14E-05	0.0001387	2.648512
SLC22A18	0.1889	1.1399	7.64580	4.74629	3.16E-06	4.48E-05	3.8681296
ATG7	0.1883	1.1394	8.67385	8.65435	2.66E-16	3.97E-14	26.396828
KCND3	0.1877	1.1390	6.64873	3.12767	0.0019277	0.0117933	-2.1528188
SHISA8	0.1872	1.1386	7.18305	4.10402	5.19E-05	0.0005335	1.2118297
RXRA	0.1872	1.1386	7.95478	4.41147	1.41E-05	0.0001688	2.4409841
SDK1	0.1871	1.1385	5.86704	2.99830	0.0029325	0.0164352	-2.5350972
SCLY	0.1870	1.1384	6.81991	3.83111	0.0001542	0.0014004	0.1876361
NEU1	0.1868	1.1382	8.85780	3.53416	0.0004708	0.0036082	-0.8536758
GGT5	0.1862	1.1378	7.08938	3.86156	0.0001369	0.0012714	0.2987348
B4GALT5	0.1840	1.1360	9.91581	2.89086	0.0041106	0.0217008	-2.8409956
NPC1	0.1839	1.1360	9.58226	6.48045	3.55E-10	1.23E-08	12.633491
ENG	0.1838	1.1358	8.64611	3.24411	0.0013056	0.0086082	-1.795785
AZIN2	0.1834	1.1356	6.42616	3.37484	0.0008316	0.0058718	-1.3804451
TGFB1	0.1833	1.1355	8.47149	2.72732	0.0067454	0.0320766	-3.2862836
CRTAP	0.1832	1.1354	10.93559	4.39483	1.52E-05	0.0001804	2.3724088
TXN	0.1827	1.1350	12.42003	3.84245	0.0001475	0.0013517	0.2289277
CCNYL1	0.1822	1.1346	9.07047	4.12548	4.75E-05	0.0004925	1.295023
GEM	0.1821	1.1346	9.28606	4.83114	2.13E-06	3.16E-05	4.2441424
MICAL1	0.1819	1.1343	9.07770	3.53190	0.0004747	0.0036291	-0.8612947
IL2RG	0.1813	1.1339	9.32141	3.55715	0.0004329	0.0033772	-0.7758181
GALC	0.1812	1.1338	8.93934	5.23350	3.05E-07	5.45E-06	6.1044836
SERAC1	0.1810	1.1337	6.18492	3.48921	0.0005539	0.0041443	-1.0045572
APOC1	0.1808	1.1335	12.33478	7.88311	5.35E-14	4.42E-12	21.206826
IKBKE	0.1807	1.1334	8.73087	4.33560	1.96E-05	0.0002269	2.1303301
NUB1	0.1805	1.1333	10.12535	3.68504	0.0002694	0.0022518	-0.3342106
STAT5A	0.1797	1.1327	8.71510	3.39254	0.0007815	0.0055806	-1.323029
PDE6G	0.1795	1.1325	6.66289	3.73808	0.0002204	0.001911	-0.1468414
EGR2	0.1794	1.1324	9.50683	4.82931	2.15E-06	3.18E-05	4.235985
CORO1C	0.1787	1.1319	11.08042	3.45110	0.000635	0.004635	-1.1311195
GSTT2	0.1774	1.1309	4.30861	3.54942	0.0004453	0.0034425	-0.8020429
HEATR5A	0.1773	1.1308	8.34393	3.88444	0.0001252	0.0011764	0.3827492
TES	0.1772	1.1307	10.98346	3.72142	0.0002348	0.0020082	-0.2059738
PRRG1	0.1770	1.1305	6.22631	3.05795	0.002421	0.0141365	-2.3607444
CDK18	0.1770	1.1305	5.11392	4.32061	2.09E-05	0.0002384	2.0695091
TMTC2	0.1769	1.1305	6.93821	3.14473	0.001822	0.0112897	-2.1012608
C1orf226	0.1762	1.1299	5.25204	4.06680	6.04E-05	0.0006102	1.068396
GALNT10	0.1762	1.1299	7.16584	2.62789	0.0090151	0.0404408	-3.5449201
SH3RF3	0.1761	1.1298	6.56305	3.14529	0.0018186	0.0112873	-2.0995923
PI4K2A	0.1760	1.1298	8.61218	4.67376	4.40E-06	6.06E-05	3.5512658
CPNE2	0.1757	1.1295	9.04146	3.10451	0.0020802	0.0124591	-2.2223672
ITGA5	0.1756	1.1295	7.83880	3.14972	0.0017921	0.0111377	-2.086157

MINK1	0.1755	1.1293	9.92749	2.66814	0.0080246	0.0368206	-3.4413395
CHRNA1	0.1753	1.1292	5.38698	3.51311	0.0005082	0.0038476	-0.9245502
NRIP3	0.1751	1.1290	6.78152	2.69196	0.0074856	0.0348828	-3.3793218
GUCY1B3	0.1748	1.1288	9.06038	5.99973	5.46E-09	1.48E-07	9.9852627
PTPN12	0.1741	1.1282	10.44841	3.04024	0.0025636	0.0148174	-2.4128536
SRXN1	0.1739	1.1281	8.72025	3.17932	0.001624	0.0102861	-1.9959582
NADK	0.1738	1.1280	10.54575	3.43426	0.0006743	0.0049042	-1.1865976
KCTD11	0.1736	1.1279	7.32947	3.69979	0.0002548	0.0021501	-0.2823611
C12orf5	0.1730	1.1274	10.13520	6.16546	2.17E-09	6.35E-08	10.880306
CCDC81	0.1728	1.1273	4.44409	3.41620	0.0007189	0.0052047	-1.2458655
STRA6	0.1728	1.1272	7.17525	4.93800	1.29E-06	2.01E-05	4.7258711
FAM102B	0.1723	1.1269	9.48136	2.70788	0.0071437	0.0335637	-3.3375724
PCK2	0.1716	1.1263	8.66862	2.60411	0.0096508	0.0425111	-3.605439
STX3	0.1715	1.1262	7.86180	4.86368	1.83E-06	2.75E-05	4.3898937
ASAP1	0.1713	1.1261	10.32639	3.58097	0.0003967	0.0031443	-0.6946543
POMGNT2	0.1701	1.1251	6.88588	2.88918	0.0041321	0.0217962	-2.8457168
AGAP3	0.1694	1.1246	8.36879	5.31786	2.00E-07	3.84E-06	6.5103881
TSPAN10	0.1694	1.1246	7.44305	4.53866	8.08E-06	0.0001031	2.9723681
SPRED1	0.1684	1.1238	8.53990	6.80476	5.16E-11	2.22E-09	14.507591
LINC01010	0.1683	1.1237	5.78550	2.85747	0.0045565	0.0235806	-2.9339269
ZDHHC18	0.1679	1.1234	8.26856	4.74981	3.11E-06	4.44E-05	3.883627
MMP25	0.1677	1.1233	7.01658	5.98022	6.08E-09	1.60E-07	9.8811492
ITM2B	0.1675	1.1231	12.70096	4.36871	1.70E-05	0.0001993	2.265302
MCHR1	0.1672	1.1228	5.82706	2.86563	0.0044436	0.023128	-2.9112997
C17orf49	0.1671	1.1228	12.19270	4.95649	1.18E-06	1.85E-05	4.8101572
UBE2Z	0.1671	1.1228	9.49257	3.73595	0.0002222	0.0019239	-0.1544158
EHD4	0.1665	1.1223	10.04785	2.65186	0.0084128	0.0381005	-3.4834179
NBEAL2	0.1662	1.1221	7.60696	2.92974	0.0036418	0.0197407	-2.7315167
SLC36A1	0.1655	1.1215	8.10804	5.18557	3.87E-07	6.77E-06	5.876286
MAOB	0.1652	1.1213	7.18070	5.65887	3.44E-08	7.69E-07	8.2056706
MGAT1	0.1651	1.1213	9.50889	3.92527	0.0001066	0.0010167	0.5338039
JAK1	0.1650	1.1211	12.28663	2.65337	0.008376	0.0379886	-3.4795144
HLX	0.1648	1.1210	6.72387	5.70329	2.72E-08	6.17E-07	8.4328296
FAM127B	0.1644	1.1207	6.99550	2.92777	0.0036644	0.0198288	-2.7371064
ACADVL	0.1639	1.1203	9.97562	2.85212	0.0046318	0.0238702	-2.9487041
CARD6	0.1636	1.1201	8.52010	3.33910	0.0009421	0.0065745	-1.4955
SGTB	0.1634	1.1199	9.97402	5.88583	1.02E-08	2.56E-07	9.381354
CSGALNACT1	0.1633	1.1198	7.87600	3.45816	0.0006192	0.004546	-1.107774
BRI3	0.1630	1.1196	11.27773	7.44138	9.70E-13	6.03E-11	18.379339
RSU1	0.1621	1.1189	10.47105	4.32885	2.02E-05	0.0002318	2.1029267
MARVELD1	0.1621	1.1189	8.00003	2.94469	0.0034751	0.0190174	-2.6890721
AMPD3	0.1619	1.1188	9.45371	2.71562	0.0069828	0.0330025	-3.3172082
ACER3	0.1616	1.1185	9.45468	3.67833	0.0002763	0.0023	-0.3577099
ACOT9	0.1613	1.1183	9.52648	4.04880	6.50E-05	0.0006513	0.9994542
TSPAN4	0.1612	1.1182	9.15263	7.51437	6.05E-13	3.92E-11	18.838791

NECAP2	0.1608	1.1179	9.27555	6.34589	7.75E-10	2.51E-08	11.876321
PTPN6	0.1604	1.1176	10.55767	4.37839	1.63E-05	0.0001922	2.3049537
FKBP15	0.1602	1.1174	9.87758	4.71661	3.62E-06	5.07E-05	3.7379508
P2RX4	0.1601	1.1173	8.59523	3.74909	0.0002114	0.001853	-0.107643
HAPLN3	0.1601	1.1173	7.81432	8.26965	3.89E-15	4.53E-13	23.769461
BIRC3	0.1599	1.1172	12.36954	4.87887	1.70E-06	2.57E-05	4.4582294
PDLIM5	0.1582	1.1159	10.61237	2.74430	0.0064141	0.0308341	-3.2412079
CALHM2	0.1582	1.1159	7.55014	4.23310	3.03E-05	0.0003322	1.7182296
DNM1	0.1579	1.1157	5.66345	2.68493	0.0076412	0.0353975	-3.3976774
ARMCX1	0.1574	1.1153	7.55498	5.78795	1.73E-08	4.08E-07	8.8697346
SIK1	0.1569	1.1149	8.32768	3.20197	0.0015052	0.0097306	-1.9263984
NARR	0.1565	1.1146	8.96815	6.66020	1.23E-10	4.71E-09	13.663759
MFSD1	0.1563	1.1145	11.78503	5.27064	2.54E-07	4.67E-06	6.2825048
VWA5A	0.1560	1.1142	8.09760	5.91440	8.72E-09	2.23E-07	9.5319758
TALDO1	0.1558	1.1140	12.62111	5.63054	4.00E-08	8.81E-07	8.0615387
CD58	0.1551	1.1135	10.30165	6.32820	8.58E-10	2.73E-08	11.777671
VASN	0.1550	1.1135	7.11013	3.20206	0.0015048	0.0097306	-1.9261489
PPT1	0.1548	1.1132	11.91124	6.51595	2.89E-10	1.04E-08	12.835259
PCSK1	0.1547	1.1132	4.73629	3.33719	0.0009483	0.0065922	-1.5016185
RPS6KA1	0.1546	1.1131	9.04023	2.82381	0.00505	0.0256049	-3.0265491
CORO1B	0.1541	1.1127	10.41236	4.32940	2.02E-05	0.0002318	2.1051304
PICALM	0.1538	1.1125	10.91880	5.24066	2.95E-07	5.29E-06	6.1387076
TMEM163	0.1538	1.1125	9.66652	6.82050	4.69E-11	2.05E-09	14.600275
TRIM47	0.1523	1.1114	7.88757	4.25724	2.74E-05	0.0003038	1.814508
ANXA2	0.1521	1.1112	13.57612	5.07529	6.65E-07	1.10E-05	5.3579236
MARCKS	0.1520	1.1111	12.48955	2.78318	0.0057101	0.0280895	-3.1369551
PER3	0.1516	1.1108	6.51332	2.62160	0.0091796	0.0409314	-3.5609909
PSEN2	0.1510	1.1103	8.14300	3.13057	0.0019093	0.0117266	-2.1440642
SLC20A1	0.1510	1.1103	10.95623	3.58577	0.0003898	0.0030932	-0.6782389
MSN	0.1507	1.1101	12.22485	3.07183	0.0023144	0.0135644	-2.319704
STK10	0.1494	1.1091	9.33860	3.02173	0.0027208	0.0154839	-2.4670101
CGNL1	0.1493	1.1091	5.82359	3.05604	0.002436	0.014171	-2.3663521
ENC1	0.1486	1.1085	7.96370	3.12921	0.0019179	0.0117567	-2.1481932
GRAMD1A	0.1485	1.1084	8.78214	3.15412	0.0017661	0.010998	-2.0727957
ATP6V0C	0.1483	1.1083	10.94218	3.41358	0.0007256	0.0052409	-1.2544061
AIFM2	0.1478	1.1079	8.55737	2.82029	0.0051044	0.0258181	-3.0361866
ADCY7	0.1478	1.1079	8.97694	3.21633	0.0014343	0.0093391	-1.8820936
JUND	0.1477	1.1078	10.98821	2.91946	0.0037608	0.0202111	-2.7606041
NAV3	0.1471	1.1074	5.87722	3.10013	0.0021103	0.0126153	-2.2354792
COL22A1	0.1471	1.1074	4.52761	3.65100	0.0003061	0.0025113	-0.453141
ZNFX1	0.1470	1.1072	9.18528	3.51512	0.0005045	0.0038243	-0.9177985
SNTB1	0.1469	1.1072	7.86180	4.80751	2.38E-06	3.47E-05	4.1388741
SNAP23	0.1469	1.1072	11.86004	5.25807	2.70E-07	4.92E-06	6.222105
HSD3B7	0.1468	1.1071	7.14027	6.40966	5.36E-10	1.79E-08	12.233674
MICALL2	0.1468	1.1071	7.46601	5.93044	7.99E-09	2.06E-07	9.6167979

MYD88	0.1461	1.1065	11.59396	3.90251	0.0001166	0.0011006	0.4494185
SSH1	0.1459	1.1064	7.92650	2.69126	0.0075009	0.034928	-3.3811397
TNF	0.1452	1.1059	7.49592	9.38357	1.35E-18	3.26E-16	31.571467
ACOX1	0.1446	1.1054	8.95603	3.39895	0.000764	0.0054747	-1.302162
TBC1D8	0.1440	1.1050	7.78489	4.10291	5.21E-05	0.0005351	1.2075072
SREBF1	0.1439	1.1049	7.50941	3.64178	0.0003168	0.0025924	-0.4851909
CLIP1	0.1438	1.1048	9.00971	3.11015	0.0020421	0.0123063	-2.2054918
ARAP1	0.1437	1.1047	9.25380	3.93612	0.0001021	0.0009784	0.574178
KIAA1598	0.1435	1.1045	8.26024	4.62395	5.52E-06	7.38E-05	3.3361081
TMEM140	0.1430	1.1042	8.71934	4.37040	1.69E-05	0.0001982	2.2722244
CDA	0.1423	1.1037	5.90942	2.90186	0.0039728	0.0210619	-2.8101878
CHSY1	0.1420	1.1034	9.91650	2.72525	0.0067868	0.032249	-3.2917568
GNPTAB	0.1413	1.1029	10.61763	4.16528	4.03E-05	0.000427	1.4504048
FPR3	0.1411	1.1028	9.33260	4.06552	6.07E-05	0.0006124	1.0635053
NMI	0.1410	1.1027	10.40752	2.81435	0.0051972	0.0261685	-3.0523901
LOC102724316	0.1409	1.1026	5.82980	3.34226	0.0009318	0.0065204	-1.4853748
PLOD3	0.1404	1.1022	9.10209	3.26904	0.0011993	0.0080599	-1.7177644
BTN2A2	0.1400	1.1019	9.27122	5.71144	2.61E-08	5.94E-07	8.4746834
ACTR1A	0.1398	1.1017	8.68139	3.59072	0.0003828	0.003045	-0.6612948
LOC101060424	0.1395	1.1015	6.96379	3.99442	8.09E-05	0.0007959	0.7928599
ADAM9	0.1391	1.1012	9.78524	3.64954	0.0003077	0.0025218	-0.4582311
PECAM1	0.1384	1.1007	10.40044	3.48541	0.0005616	0.0041914	-1.0172362
STX4	0.1382	1.1006	9.75917	5.24171	2.93E-07	5.27E-06	6.1437146
PLEKHO2	0.1376	1.1000	9.27406	6.80223	5.24E-11	2.24E-09	14.492696
DOCK11	0.1374	1.0999	10.44990	2.84922	0.0046732	0.0240241	-2.9567131
LMO4	0.1372	1.0998	10.24906	2.74065	0.006484	0.0310926	-3.2509105
ARRB2	0.1372	1.0998	7.13735	2.94256	0.0034984	0.0191283	-2.6951318
IL22RA2	0.1372	1.0998	6.91674	4.39818	1.50E-05	0.0001781	2.386215
COLGALT1	0.1366	1.0993	9.68775	4.30709	2.22E-05	0.0002512	2.0148413
TAP1	0.1366	1.0993	11.36004	3.03818	0.0025807	0.0149024	-2.4188967
XAF1	0.1365	1.0992	10.06253	2.81426	0.0051987	0.0261685	-3.0526521
OAZ2	0.1365	1.0992	9.72619	4.18412	3.72E-05	0.0003975	1.5244278
CD63	0.1362	1.0990	12.87454	7.28227	2.68E-12	1.57E-10	17.388547
PCLO	0.1361	1.0989	4.04475	3.14305	0.0018321	0.0113192	-2.1063569
SLC18A1	0.1360	1.0988	4.80383	3.86353	0.0001359	0.0012635	0.3059593
CAPZB	0.1354	1.0984	11.69024	4.96323	1.14E-06	1.79E-05	4.8409296
LOC285181	0.1347	1.0979	3.34996	4.46600	1.11E-05	0.0001366	2.6671504
GAA	0.1343	1.0975	7.98464	5.16546	4.28E-07	7.38E-06	5.7810704
ANO6	0.1339	1.0973	9.59779	3.04565	0.0025193	0.0146116	-2.3969695
DUSP3	0.1339	1.0972	8.65776	3.71108	0.0002442	0.0020798	-0.2425243
TPCN2	0.1338	1.0972	7.83159	3.17104	0.0016695	0.0105003	-2.0212806
ZDHHC7	0.1331	1.0967	9.66203	3.47729	0.0005782	0.0042951	-1.0442834
PLBD2	0.1327	1.0964	7.94858	3.18403	0.0015986	0.0101821	-1.9815333
ANO10	0.1326	1.0962	7.38035	3.47236	0.0005885	0.0043512	-1.0606878
SIGLEC7	0.1313	1.0953	8.23968	6.76690	6.49E-11	2.66E-09	14.285245

CSF1	0.1309	1.0950	7.84872	5.19239	3.75E-07	6.59E-06	5.90861
PLEKHM2	0.1308	1.0949	7.77874	3.54968	0.0004449	0.0034425	-0.801162
CD14	0.1301	1.0944	10.78411	3.72267	0.0002337	0.0020041	-0.2015395
CNTLN	0.1301	1.0944	5.69340	2.87388	0.0043321	0.0226604	-2.888372
METRNL	0.1299	1.0942	8.10671	3.35649	0.0008867	0.0062398	-1.4396551
LOC400043	0.1295	1.0939	8.61076	5.10891	5.65E-07	9.45E-06	5.5149733
C19orf66	0.1293	1.0938	8.72983	4.04942	6.48E-05	0.0006507	1.001838
SEMA5B	0.1293	1.0938	7.13236	3.78021	0.0001876	0.0016682	0.0037011
CYP2S1	0.1287	1.0933	4.79087	3.54980	0.0004447	0.0034425	-0.8007555
TFE3	0.1283	1.0930	9.82111	2.85318	0.0046168	0.0238321	-2.9457843
AK056982	0.1280	1.0928	5.18294	5.33363	1.85E-07	3.57E-06	6.5868242
LINC01272	0.1278	1.0926	4.60543	3.10271	0.0020925	0.0125211	-2.2277687
SLC9A3R1	0.1275	1.0924	7.54481	2.79387	0.0055294	0.027437	-3.1080752
TRIM21	0.1273	1.0923	8.28158	3.07057	0.0023239	0.0136074	-2.32344
M6PR	0.1273	1.0922	10.75993	4.71445	3.65E-06	5.11E-05	3.7285015
PAC SIN2	0.1270	1.0920	11.31394	2.78167	0.0057362	0.0281956	-3.1410446
TMEM50A	0.1263	1.0915	10.74569	4.10158	5.24E-05	0.0005372	1.2023941
GBA	0.1261	1.0913	7.82491	3.60782	0.0003593	0.0028917	-0.60256
FZD7	0.1259	1.0912	6.41200	3.17820	0.00163	0.0103039	-1.9993867
NDFIP1	0.1258	1.0911	10.05145	2.89130	0.0041051	0.0216899	-2.8397835
LRRC61	0.1257	1.0910	6.24535	2.77275	0.0058917	0.0288475	-3.1650608
FUCA1	0.1255	1.0909	12.55572	4.79118	2.57E-06	3.70E-05	4.0663384
LTBR	0.1252	1.0906	7.90761	5.00154	9.50E-07	1.51E-05	5.0165833
NPDC1	0.1251	1.0906	6.39702	2.68095	0.0077305	0.0357585	-3.4080442
AK021804	0.1247	1.0903	7.24490	4.09745	5.33E-05	0.0005437	1.1864101
FBXO6	0.1245	1.0901	10.29276	5.34677	1.73E-07	3.38E-06	6.6507311
ARSB	0.1242	1.0899	6.35359	3.47107	0.0005913	0.0043662	-1.0649623
RASIP1	0.1236	1.0894	6.83872	2.63889	0.0087342	0.039329	-3.5167794
EFNB2	0.1235	1.0894	7.72855	2.73101	0.0066722	0.0318155	-3.2765207
LAIR1	0.1233	1.0892	9.19764	7.22748	3.79E-12	2.16E-10	17.050863
SERPINB6	0.1231	1.0891	9.24478	3.92405	0.0001071	0.0010201	0.529282
THEMIS2	0.1227	1.0888	9.48469	5.65148	3.58E-08	7.97E-07	8.1680249
TMOD3	0.1218	1.0881	9.83498	3.00558	0.0028652	0.0161446	-2.514012
DTX2	0.1211	1.0875	7.48679	4.71272	3.68E-06	5.14E-05	3.7209327
TNIP1	0.1209	1.0874	10.81286	3.23280	0.0013566	0.0089165	-1.8309915
NFKB2	0.1207	1.0873	6.79514	3.02088	0.0027283	0.015498	-2.4694881
ALDH3B1	0.1195	1.0864	7.53551	5.93202	7.92E-09	2.05E-07	9.625139
MYOF	0.1190	1.0860	9.68917	5.26493	2.61E-07	4.78E-06	6.2550447
CTBP2	0.1187	1.0858	9.74276	4.93450	1.31E-06	2.03E-05	4.7099696
NFE2L2	0.1187	1.0858	11.52801	5.85528	1.20E-08	2.93E-07	9.2209484
RTN4	0.1185	1.0856	12.36696	4.46960	1.10E-05	0.000135	2.6821866
CD276	0.1183	1.0855	7.71530	3.16083	0.0017272	0.0107769	-2.0523916
ROR2	0.1178	1.0851	5.05584	2.73353	0.0066225	0.0316597	-3.2698208
KDR	0.1172	1.0846	6.21715	2.74502	0.0064004	0.0308094	-3.2392887
PPIF	0.1171	1.0845	10.37749	2.73895	0.0065169	0.0312024	-3.2554337

VAT1	0.1164	1.0840	9.14332	4.31803	2.12E-05	0.0002401	2.0590791
CLEC7A	0.1162	1.0839	9.65364	8.60474	3.77E-16	5.26E-14	26.053832
IFITM3	0.1160	1.0837	11.92446	3.76769	0.0001969	0.001738	-0.0411982
LEPROT	0.1158	1.0836	10.67432	4.25853	2.72E-05	0.0003027	1.8196708
LRP10	0.1157	1.0835	10.29720	2.74873	0.0063302	0.0305827	-3.2294037
RAB5C	0.1157	1.0835	9.06360	3.33892	0.0009427	0.0065745	-1.4960813
AGO1	0.1155	1.0834	8.77052	2.64038	0.0086968	0.0391885	-3.5129567
RNPEP	0.1154	1.0833	9.19112	2.65112	0.0084308	0.038127	-3.485322
LOC100507642	0.1150	1.0829	5.61173	5.37107	1.53E-07	3.01E-06	6.769173
DAB2	0.1148	1.0828	9.08931	4.57112	6.99E-06	9.03E-05	3.1100946
PKDCC	0.1139	1.0822	7.56000	3.34096	0.000936	0.0065426	-1.489549
DHRS4	0.1139	1.0821	9.90320	2.62645	0.0090526	0.0405299	-3.5486084
FBXW5	0.1137	1.0820	7.84348	2.91795	0.0037786	0.0202722	-2.7648821
LUZP1	0.1136	1.0819	8.60784	3.27695	0.0011673	0.0078785	-1.6928881
CLCN7	0.1134	1.0818	9.19450	3.55160	0.0004418	0.0034279	-0.7946389
PDCD1LG2	0.1133	1.0817	6.73982	5.80462	1.58E-08	3.79E-07	8.9564047
MLKL	0.1130	1.0815	8.10451	3.77310	0.0001928	0.0017047	-0.0218071
LAMP1	0.1129	1.0814	12.87247	4.00384	7.79E-05	0.0007688	0.8284783
WSB1	0.1129	1.0814	10.41687	2.77388	0.0058719	0.0288158	-3.1620319
HSPA8	0.1121	1.0808	13.51453	2.64096	0.008682	0.0391501	-3.5114472
ATOX1	0.1118	1.0805	11.84806	7.22326	3.89E-12	2.20E-10	17.024919
TMEM251	0.1108	1.0799	10.11313	2.63716	0.0087778	0.0394968	-3.5212029
SLC43A2	0.1108	1.0798	7.23016	2.92476	0.0036991	0.0199477	-2.7456325
SDCBP	0.1103	1.0795	12.74081	6.64801	1.32E-10	5.00E-09	13.593206
ANXA1	0.1098	1.0791	11.03080	5.57403	5.38E-08	1.16E-06	7.7757965
PIGA	0.1096	1.0790	7.43168	3.10881	0.002051	0.0123182	-2.2094831
RHBDD2	0.1092	1.0786	8.10454	2.99920	0.0029241	0.0164176	-2.5325013
MILR1	0.1088	1.0784	7.44624	3.28765	0.0011252	0.0076359	-1.6591518
NPPA	0.1087	1.0782	5.12064	3.10537	0.0020743	0.0124361	-2.2198069
NQO2	0.1086	1.0782	9.56698	3.80142	0.0001729	0.0015462	0.0800762
LOC100996724	0.1086	1.0782	8.77565	2.93961	0.0035309	0.0192557	-2.7035064
CARD9	0.1077	1.0775	6.14460	7.61809	3.08E-13	2.13E-11	19.497129
EPB41L2	0.1074	1.0773	9.89762	2.59457	0.0099168	0.0434086	-3.6295571
AGTRAP	0.1073	1.0772	8.52937	6.93348	2.36E-11	1.11E-09	15.270211
XCR1	0.1066	1.0767	5.04455	2.61526	0.0093479	0.0414678	-3.5771303
FAM127A	0.1063	1.0765	8.93174	2.59881	0.0097978	0.0430678	-3.6188469
TMEM133	0.1061	1.0763	6.36504	4.05743	6.27E-05	0.0006309	1.0324657
DNASE2	0.1060	1.0762	10.34027	8.17207	7.60E-15	8.09E-13	23.115005
FAM49B	0.1057	1.0760	10.86604	2.70097	0.0072903	0.0341501	-3.3557163
RNF144A	0.1052	1.0757	6.39761	2.76228	0.0060793	0.0296503	-3.1931696
HMGN2P46	0.1051	1.0755	4.72404	2.86338	0.0044744	0.02325	-2.91754
NUCB1	0.1043	1.0750	7.54687	2.77110	0.005921	0.0289683	-3.1695108
BIN2	0.1039	1.0747	8.47521	4.99266	9.91E-07	1.57E-05	4.9757682
LINC00595	0.1037	1.0745	4.23831	2.65856	0.0082511	0.0375849	-3.4661308
SAT1	0.1032	1.0742	13.36228	5.78667	1.74E-08	4.10E-07	8.8631174

SLC11A2	0.1031	1.0741	8.15007	4.28364	2.45E-05	0.000276	1.9203408
PTTG1IP	0.1030	1.0740	11.64901	3.41544	0.0007208	0.0052126	-1.2483328
PARP14	0.1028	1.0739	9.22236	4.63824	5.17E-06	7.00E-05	3.3976236
NAAA	0.1028	1.0738	9.69994	5.11608	5.45E-07	9.17E-06	5.5485596
TTYH3	0.1028	1.0738	8.30046	3.34598	0.0009198	0.006458	-1.4734302
CHFR	0.1026	1.0737	9.26147	2.86250	0.0044866	0.0232746	-2.919985
INPP4A	0.1023	1.0735	9.05656	3.91355	0.0001116	0.0010584	0.4903131
LOC100506585	0.1019	1.0732	4.81348	2.94997	0.0034178	0.0187859	-2.6740207
C2	0.1015	1.0729	8.34282	4.80509	2.40E-06	3.49E-05	4.1281113
HSD17B4	0.1014	1.0728	10.71435	2.61910	0.0092455	0.0411588	-3.5673451
ARHGAP4	0.1009	1.0724	8.19198	3.12389	0.0019518	0.0118854	-2.1642027
DOCK2	0.1007	1.0723	10.45845	3.13017	0.0019118	0.0117307	-2.1452812
ALOX5	0.1005	1.0721	10.25799	2.99217	0.0029904	0.0167149	-2.5528526
FTH1P5	0.1004	1.0721	14.13939	8.11399	1.13E-14	1.07E-12	22.727917
ZNF276	0.1000	1.0717	6.33006	2.75358	0.0062393	0.0302894	-3.2164513
CASP7	0.0999	1.0717	8.85794	3.23744	0.0013355	0.0087869	-1.816582
IGFBP7	0.0997	1.0716	12.68684	3.74489	0.0002148	0.0018725	-0.1226274
TFRC	0.0996	1.0715	12.91041	2.85170	0.0046378	0.0238815	-2.9498735
SDF4	0.0994	1.0713	10.13702	2.66102	0.0081925	0.0373721	-3.4597815
SPG20	0.0992	1.0712	7.46833	6.06487	3.80E-09	1.07E-07	10.334789
IFITM2	0.0991	1.0711	11.40422	3.21858	0.0014234	0.0092875	-1.8751083
LOXL3	0.0991	1.0711	7.26979	2.86446	0.0044597	0.0231926	-2.9145631
JAG1	0.0991	1.0711	9.51411	3.57356	0.0004077	0.0031987	-0.7199531
TBXAS1	0.0973	1.0698	7.33868	6.10241	3.09E-09	8.80E-08	10.537533
BEAN1	0.0972	1.0697	5.04295	3.22324	0.0014012	0.0091807	-1.8606729
ABCA1	0.0970	1.0695	9.80817	2.69063	0.0075148	0.0349672	-3.3828022
OAF	0.0968	1.0694	7.40562	3.31979	0.0010073	0.0069634	-1.5572041
CTSL	0.0966	1.0692	11.35720	7.58032	3.95E-13	2.63E-11	19.256635
DYSF	0.0960	1.0688	8.28705	2.81651	0.0051633	0.0260531	-3.0465111
CREBL2	0.0956	1.0685	10.39856	8.06330	1.59E-14	1.44E-12	22.391458
SELE	0.0956	1.0685	6.41188	3.52424	0.0004881	0.0037134	-0.8871185
KCNJ10	0.0953	1.0683	7.84774	6.20738	1.71E-09	5.09E-08	11.109735
USB1	0.0942	1.0674	7.50675	3.30708	0.0010525	0.0072125	-1.5976445
PABPC4L	0.0940	1.0673	5.00698	2.83177	0.0049291	0.0250728	-3.0047352
TMEM74B	0.0937	1.0671	4.41024	3.83172	0.0001538	0.001399	0.1898745
PTPRK	0.0936	1.0670	7.71454	4.20741	3.38E-05	0.0003641	1.6163205
SGSH	0.0936	1.0670	7.77855	2.96201	0.0032904	0.0181975	-2.6396043
LGALS3	0.0934	1.0669	13.28863	5.56330	5.69E-08	1.22E-06	7.7218129
C20orf24	0.0925	1.0662	12.53204	3.28111	0.0011508	0.0077754	-1.6797792
RBFOX1	0.0924	1.0661	4.39489	3.63032	0.0003306	0.0026954	-0.5249168
RILPL2	0.0923	1.0660	10.70076	2.87433	0.0043262	0.0226485	-2.8871469
IGF2R	0.0915	1.0655	10.09173	3.25246	0.001269	0.0084203	-1.7697103
GPR153	0.0915	1.0654	8.37496	3.50165	0.0005296	0.0039816	-0.9629824
UNC119	0.0913	1.0653	8.97774	3.20688	0.0014806	0.0096111	-1.9112826
IFFO1	0.0908	1.0650	8.23677	3.43247	0.0006786	0.0049241	-1.1924765

RILPL1	0.0906	1.0648	6.96198	3.96943	8.94E-05	0.0008729	0.6987647
CC2D1B	0.0906	1.0648	7.14902	3.70149	0.0002532	0.0021391	-0.2763393
ZEB2	0.0905	1.0647	9.23140	6.03581	4.47E-09	1.24E-07	10.178472
RABGGTA	0.0902	1.0645	7.16524	3.02390	0.0027019	0.0153901	-2.4606614
CLPTM1	0.0898	1.0642	7.67036	2.83430	0.0048912	0.0249321	-2.9977879
AF086125	0.0898	1.0642	3.07626	2.84507	0.0047329	0.0242916	-2.9681679
HIF1A	0.0889	1.0635	13.29212	3.04121	0.0025556	0.0147983	-2.410003
OPTN	0.0887	1.0634	9.56382	5.51720	7.23E-08	1.53E-06	7.4908616
ACSS2	0.0885	1.0633	6.64804	2.76523	0.0060261	0.0294362	-3.1852768
NLGN4Y	0.0882	1.0631	4.18432	2.77363	0.0058762	0.0288158	-3.1626962
SLC38A6	0.0880	1.0629	8.79697	4.68014	4.28E-06	5.90E-05	3.5789542
PLEKHB2	0.0878	1.0627	10.75273	6.04948	4.14E-09	1.15E-07	10.251907
LOC101928143	0.0875	1.0625	8.05656	3.62967	0.0003314	0.0026979	-0.5271675
LOC101927027	0.0863	1.0616	6.98300	2.87678	0.0042936	0.0224966	-2.8803199
LIPG	0.0860	1.0614	5.78797	5.14728	4.68E-07	7.98E-06	5.6952428
MADCAM1	0.0859	1.0613	6.45924	3.02693	0.0026758	0.015269	-2.4518249
PIP4K2A	0.0850	1.0607	10.65544	3.29519	0.0010965	0.0074892	-1.6353148
USP40	0.0847	1.0604	7.08461	2.82572	0.0050208	0.0254775	-3.0213338
VPS53	0.0836	1.0597	7.29694	3.87390	0.0001305	0.0012187	0.3439902
GNAQ	0.0832	1.0594	9.52454	7.39269	1.33E-12	8.00E-11	18.074536
NMNAT3	0.0826	1.0589	7.07502	3.96588	9.07E-05	0.000884	0.6854346
IL12RB2	0.0823	1.0587	4.76208	2.67613	0.0078401	0.0361323	-3.4205998
TGFBR2	0.0821	1.0585	10.20809	3.13143	0.0019039	0.0117106	-2.1414815
TPK1	0.0819	1.0584	7.68450	3.94023	0.0001004	0.000964	0.5894952
USP4	0.0816	1.0582	9.75978	2.59670	0.0098569	0.0432064	-3.6241791
RASGRP1	0.0816	1.0582	11.40612	4.33363	1.98E-05	0.0002284	2.1223028
GLB1	0.0810	1.0578	10.35939	5.23949	2.97E-07	5.30E-06	6.1330889
LOC100505811	0.0802	1.0572	3.04259	3.11857	0.0019863	0.0120463	-2.1801978
GPR176	0.0799	1.0569	7.45175	3.17347	0.001656	0.0104356	-2.0138579
FMN1	0.0794	1.0566	5.63641	4.20279	3.44E-05	0.0003702	1.5980645
ARHGAP18	0.0792	1.0565	10.03531	3.32279	0.0009969	0.0068992	-1.5476553
CXorf65	0.0792	1.0564	5.53976	2.91503	0.0038131	0.0204399	-2.7731069
C1orf85	0.0789	1.0562	8.52904	4.36607	1.72E-05	0.0002012	2.2544871
AURKC	0.0783	1.0558	5.98036	4.07331	5.88E-05	0.0005952	1.0933967
BST1	0.0780	1.0556	6.10719	7.65190	2.47E-13	1.76E-11	19.713041
SFXN3	0.0779	1.0555	8.06223	2.97446	0.0031634	0.0175568	-2.6038979
XKR4	0.0773	1.0550	5.05284	3.03480	0.0026089	0.0149855	-2.428784
STX6	0.0773	1.0550	9.16568	2.65474	0.008343	0.0378664	-3.4760013
TGFB1I1	0.0767	1.0546	8.41268	2.83724	0.0048475	0.0247785	-2.9897165
ZBTB4	0.0766	1.0545	8.21233	3.84398	0.0001466	0.0013476	0.234499
SPSB1	0.0766	1.0545	7.16585	4.90948	1.47E-06	2.26E-05	4.5964286
ABHD12	0.0762	1.0542	8.81717	5.97243	6.35E-09	1.67E-07	9.8396918
LINC01094	0.0760	1.0541	7.44602	6.60979	1.66E-10	6.09E-09	13.372698
LOC100506022	0.0757	1.0539	4.29844	3.52839	0.0004808	0.0036668	-0.8731493
KCNE4	0.0757	1.0539	6.87242	3.54763	0.0004483	0.0034609	-0.8081239

LOC102723809	0.0753	1.0536	3.67139	2.84227	0.0047736	0.0244802	-2.9758699
MIR6513	0.0750	1.0534	9.49579	6.22372	1.56E-09	4.72E-08	11.199496
PYCARD	0.0737	1.0524	10.15951	5.86818	1.12E-08	2.77E-07	9.2886024
RARRES1	0.0736	1.0523	10.70696	5.85944	1.18E-08	2.88E-07	9.2427032
RASAL3	0.0736	1.0523	8.45124	2.60412	0.0096505	0.0425111	-3.6054104
SIPA1	0.0734	1.0522	8.35659	2.61593	0.00933	0.0414176	-3.5754269
AAK1	0.0733	1.0521	8.85831	5.48280	8.64E-08	1.80E-06	7.3195238
OSBPL1A	0.0732	1.0520	8.56112	3.59459	0.0003773	0.0030056	-0.6480051
FAM21C	0.0730	1.0519	10.46832	4.00120	7.87E-05	0.0007758	0.8184864
DST	0.0724	1.0515	8.88540	2.66584	0.0080786	0.03696	-3.4473082
VPS18	0.0714	1.0507	7.51332	2.87256	0.0043498	0.0227153	-2.8920604
RAB32	0.0711	1.0505	8.82407	7.48493	7.32E-13	4.64E-11	18.653136
HAMP	0.0710	1.0504	8.34005	6.30025	1.01E-09	3.18E-08	11.62226
PARP9	0.0708	1.0503	9.80126	4.49242	9.92E-06	0.0001245	2.7776581
MANBA	0.0708	1.0503	8.52369	3.39132	0.0007848	0.0055982	-1.3269829
RER1	0.0704	1.0500	10.52682	3.16035	0.0017299	0.0107833	-2.0538417
AL832909	0.0699	1.0496	7.80771	3.03657	0.0025941	0.014952	-2.4236153
NAGPA	0.0696	1.0494	7.95706	2.69491	0.0074211	0.0346592	-3.3715913
DIRC2	0.0695	1.0494	7.55545	3.43939	0.0006621	0.0048268	-1.1697312
HADHB	0.0694	1.0493	10.79250	2.79736	0.0054713	0.0272785	-3.0986012
HTATIP2	0.0693	1.0492	10.46001	4.18517	3.71E-05	0.0003964	1.5285559
GBAP1	0.0692	1.0492	8.63628	3.91453	0.0001112	0.001056	0.4939256
SLC27A1	0.0689	1.0489	7.83184	4.48370	1.03E-05	0.0001287	2.7411045
ZNF629	0.0688	1.0488	6.88261	3.60885	0.000358	0.0028846	-0.5989994
SPPL2A	0.0687	1.0488	10.90834	5.90130	9.37E-09	2.36E-07	9.4628115
GCM1	0.0681	1.0484	3.28592	2.99850	0.0029307	0.0164352	-2.5345236
RCN1	0.0680	1.0482	9.84215	3.93196	0.0001038	0.0009931	0.558691
CHST4	0.0674	1.0478	4.85678	3.80210	0.0001725	0.0015444	0.0825193
TPD52L2	0.0673	1.0478	9.06495	2.78859	0.0056179	0.0277665	-3.1223419
WDR44	0.0666	1.0473	7.38424	2.73085	0.0066753	0.0318155	-3.2769361
MB21D1	0.0662	1.0469	7.36428	3.61661	0.0003478	0.0028243	-0.5722718
SEMA5A	0.0657	1.0466	7.25685	2.91870	0.0037698	0.0202422	-2.7627705
EDEM2	0.0656	1.0465	7.98755	2.94839	0.0034348	0.0188629	-2.6785179
NHLRC3	0.0645	1.0457	8.95990	5.20479	3.52E-07	6.23E-06	5.9675741
CALCOCO2	0.0643	1.0456	9.34357	3.03629	0.0025964	0.014952	-2.4244301
TMEM144	0.0642	1.0455	6.58090	4.24884	2.84E-05	0.0003137	1.7809664
SPNS1	0.0638	1.0452	7.93521	2.70701	0.0071622	0.0336252	-3.3398778
FAM21A	0.0637	1.0451	10.61906	3.69007	0.0002644	0.0022214	-0.3165495
LRRFIP2	0.0636	1.0451	8.01614	3.18520	0.0015923	0.0101821	-1.9779352
LOC730102	0.0631	1.0447	3.98148	4.57163	6.98E-06	9.03E-05	3.1122642
LAPTM4A	0.0630	1.0447	12.11798	3.63026	0.0003306	0.0026954	-0.5251119
RGS1	0.0630	1.0447	11.62080	5.09974	5.90E-07	9.83E-06	5.472073
RAB1A	0.0625	1.0443	12.30683	3.72637	0.0002305	0.0019789	-0.1884406
MLLT6	0.0624	1.0442	8.33366	2.79702	0.005477	0.0272848	-3.0995233
STX11	0.0623	1.0442	8.04234	6.52386	2.75E-10	9.99E-09	12.880327

LGALS1	0.0620	1.0439	13.16805	3.51229	0.0005097	0.0038545	-0.9273261
RNF149	0.0619	1.0438	10.51567	5.12185	5.30E-07	8.97E-06	5.5756128
ZNF557	0.0617	1.0437	6.30313	2.71372	0.007022	0.0331407	-3.3222169
CCDC102B	0.0611	1.0432	6.88653	3.88263	0.0001261	0.0011829	0.3761202
PLEKHO1	0.0610	1.0432	10.13443	4.21837	3.23E-05	0.0003504	1.659733
TTC38	0.0610	1.0432	8.37420	5.31270	2.06E-07	3.93E-06	6.4853911
CNN3	0.0606	1.0429	8.71431	3.16677	0.0016934	0.0106295	-2.0343048
FAM214B	0.0606	1.0429	6.89288	2.75054	0.006296	0.030447	-3.2245604
ADCY9	0.0604	1.0428	6.06614	3.04543	0.002521	0.0146116	-2.3975998
SERPINB8	0.0599	1.0424	7.32801	2.62771	0.0090198	0.0404408	-3.5453836
FCHO2	0.0596	1.0422	10.29861	7.05329	1.13E-11	5.89E-10	15.989395
MAP3K11	0.0594	1.0421	8.25026	2.72135	0.0068657	0.0325251	-3.3020856
BTN2A1	0.0592	1.0419	8.69404	3.18474	0.0015948	0.0101821	-1.9793706
ZFAND5	0.0590	1.0418	11.25425	5.60538	4.56E-08	1.00E-06	7.9340178
LAP3	0.0590	1.0417	12.34534	6.45977	4.01E-10	1.37E-08	12.516361
BAK1	0.0588	1.0416	7.76463	2.77533	0.0058464	0.028715	-3.1581267
CD80	0.0588	1.0416	8.80004	4.57796	6.78E-06	8.86E-05	3.1392159
CERS6	0.0579	1.0410	9.15796	3.74921	0.0002113	0.001853	-0.1072262
RBMS1	0.0572	1.0404	11.14378	4.21539	3.27E-05	0.0003542	1.6479356
SUOX	0.0571	1.0404	6.70403	6.14544	2.42E-09	7.04E-08	10.771169
CMTM6	0.0567	1.0401	11.90455	4.57453	6.89E-06	8.93E-05	3.1246325
FAM64A	0.0559	1.0395	4.80086	4.20035	3.48E-05	0.0003733	1.5884328
TBC1D2B	0.0558	1.0395	8.83978	4.29103	2.37E-05	0.0002685	1.9500734
GRK5	0.0558	1.0394	8.80605	3.38906	0.0007911	0.005634	-1.3343379
VWA1	0.0554	1.0391	6.78901	2.73966	0.0065032	0.0311608	-3.2535568
TWIST2	0.0550	1.0388	6.08300	3.37502	0.0008311	0.0058718	-1.3798483
WARS	0.0548	1.0387	12.26896	4.41531	1.39E-05	0.0001663	2.4568254
PRAM1	0.0548	1.0387	5.24305	3.38478	0.0008031	0.0057089	-1.3482185
TPPP3	0.0543	1.0384	4.56686	2.66263	0.0081541	0.0372241	-3.4555994
C5orf15	0.0542	1.0383	10.50677	2.90213	0.0039694	0.0210616	-2.8094119
HECTD3	0.0540	1.0381	6.34644	3.05750	0.0024245	0.0141436	-2.3620516
CASP10	0.0540	1.0381	6.71391	3.97366	8.79E-05	0.0008596	0.7146665
BC042366	0.0539	1.0381	2.95495	2.61406	0.00938	0.0415506	-3.5801703
SLC39A13	0.0539	1.0381	7.56193	2.88086	0.0042398	0.022252	-2.8689432
LACC1	0.0535	1.0378	8.61855	3.82344	0.0001588	0.0014343	0.1597732
SERPINB1	0.0534	1.0377	11.07520	5.39178	1.38E-07	2.73E-06	6.8704964
ZBTB46	0.0531	1.0375	6.83724	5.00970	9.13E-07	1.47E-05	5.0541258
APOL3	0.0530	1.0374	8.96794	5.42695	1.15E-07	2.35E-06	7.0432664
SLFN11	0.0529	1.0373	8.27335	3.04048	0.0025616	0.0148174	-2.4121477
MVP	0.0527	1.0372	9.58541	6.55320	2.32E-10	8.46E-09	13.047899
SLC38A7	0.0525	1.0371	7.28842	2.99179	0.002994	0.0167199	-2.5539333
SLC2A14	0.0521	1.0368	8.35551	4.57693	6.81E-06	8.87E-05	3.1348562
SOCS3	0.0519	1.0367	8.72479	6.11988	2.80E-09	8.06E-08	10.632265
HEXA	0.0519	1.0367	10.20009	2.91383	0.0038274	0.0204814	-2.7764838
RAB11FIP1	0.0516	1.0364	9.47420	3.12301	0.0019575	0.0119061	-2.1668514

JAK3	0.0514	1.0362	9.80047	5.21300	3.38E-07	6.00E-06	6.0066519
VPS9D1	0.0513	1.0362	6.45008	2.62816	0.0090082	0.0404408	-3.5442474
TLR4	0.0507	1.0357	8.02220	6.18844	1.90E-09	5.63E-08	11.005912
GCH1	0.0506	1.0357	11.15216	4.16124	4.09E-05	0.0004334	1.4345909
MFSD12	0.0506	1.0357	7.38811	2.67953	0.0077627	0.0358545	-3.4117487
LIPC	0.0503	1.0355	4.10320	4.06279	6.14E-05	0.0006183	1.0530133
DZIP1	0.0500	1.0353	5.53345	2.85218	0.004631	0.0238702	-2.9485556
ITCH	0.0500	1.0353	8.32889	2.62153	0.0091814	0.0409314	-3.5611627
ZNF696	-0.0502	0.9658	6.09071	-3.12128	0.0019687	0.0119625	-2.1720496
ADM5	-0.0502	0.9658	5.58559	-4.26388	2.66E-05	0.0002964	1.8410535
LINC00566	-0.0503	0.9658	2.84636	-3.21468	0.0014423	0.0093814	-1.8871958
TMPO	-0.0511	0.9652	11.01599	-3.20131	0.0015086	0.0097425	-1.9284546
BRD8	-0.0515	0.9649	9.13640	-2.75331	0.0062444	0.0302908	-3.2171856
LYPD3	-0.0519	0.9647	6.09991	-2.90263	0.0039632	0.0210465	-2.8080014
ZP1	-0.0529	0.9640	3.79345	-3.80455	0.0001708	0.0015342	0.0913954
TUSC5	-0.0529	0.9640	5.02408	-2.91241	0.0038445	0.0205376	-2.7805035
POLD2	-0.0535	0.9636	8.28681	-3.50389	0.0005254	0.0039637	-0.9554783
CHEK2	-0.0536	0.9635	8.30870	-3.01803	0.0027533	0.0155979	-2.4777938
TRIM45	-0.0538	0.9634	5.04097	-3.26558	0.0012135	0.0081381	-1.7286119
NYNRIN	-0.0539	0.9633	4.57940	-2.78736	0.0056388	0.0278262	-3.1256821
PLA2G4F	-0.0541	0.9632	5.07481	-3.35114	0.0009034	0.0063501	-1.456858
DRG1	-0.0542	0.9632	10.67509	-2.79512	0.0055084	0.0273547	-3.1046679
OTX1	-0.0545	0.9629	3.79090	-2.72284	0.0068355	0.0324085	-3.2981527
SAPCD2	-0.0551	0.9625	8.05288	-3.18756	0.0015798	0.0101282	-1.9707022
MGA	-0.0562	0.9618	8.70912	-2.75572	0.0061996	0.0301199	-3.2107297
ACBD6	-0.0578	0.9607	9.50731	-3.57902	0.0003996	0.0031589	-0.7013087
RAE1	-0.0580	0.9606	9.84998	-3.02090	0.0027281	0.015498	-2.4694172
LOC101928747	-0.0585	0.9603	11.08855	-3.78544	0.0001839	0.0016397	0.0225138
IBA57	-0.0585	0.9603	6.09377	-3.20053	0.0015126	0.0097579	-1.9308465
LEMD3	-0.0585	0.9603	9.82213	-3.55386	0.0004382	0.0034124	-0.7869843
PWAR5	-0.0588	0.9601	3.57208	-3.49259	0.0005472	0.0040991	-0.9932834
ALCAM	-0.0589	0.9600	10.07403	-3.84174	0.0001479	0.0013535	0.2263471
RALGPS1	-0.0593	0.9598	5.42309	-4.38106	1.61E-05	0.0001904	2.3158813
FAM60A	-0.0604	0.9590	10.82320	-3.05427	0.00245	0.014229	-2.3715808
MTX2	-0.0608	0.9587	9.55697	-3.74748	0.0002127	0.0018566	-0.1133776
LOC101927620	-0.0613	0.9584	3.95946	-3.32701	0.0009824	0.0068066	-1.5341806
HEYL	-0.0617	0.9581	6.44989	-2.67057	0.0079681	0.0366146	-3.4350357
ALDH18A1	-0.0630	0.9572	9.87884	-2.79758	0.0054678	0.0272785	-3.0980122
BRMS1L	-0.0632	0.9572	7.85567	-2.65268	0.0083929	0.0380378	-3.4813106
RNF103	-0.0637	0.9568	8.83721	-2.80098	0.0054119	0.027068	-3.0887827
SAMD4B	-0.0639	0.9567	7.50874	-3.22189	0.0014076	0.0092102	-1.864863
H3F3A	-0.0653	0.9557	13.43188	-3.29138	0.0011109	0.0075796	-1.647364
AGBL5	-0.0655	0.9556	7.24660	-3.09387	0.0021539	0.0127911	-2.2541738
ORAI2	-0.0655	0.9556	10.20629	-3.62012	0.0003433	0.0027916	-0.5601644
CENPO	-0.0657	0.9555	6.87152	-3.75242	0.0002087	0.0018347	-0.0957638

GJC1	-0.0658	0.9554	8.01512	-4.60661	5.96E-06	7.87E-05	3.2616562
RMND5A	-0.0663	0.9551	8.75881	-3.55249	0.0004404	0.003421	-0.7916256
EIF2AK3	-0.0675	0.9543	9.07720	-2.61382	0.0093865	0.0415506	-3.5807835
DESI2	-0.0685	0.9536	9.89527	-3.01270	0.0028007	0.0158376	-2.4932985
TXLNG	-0.0686	0.9536	9.68063	-3.17319	0.0016575	0.0104356	-2.0146978
CD99	-0.0689	0.9534	11.04149	-2.62033	0.0092131	0.0410436	-3.564224
GPR161	-0.0696	0.9529	6.25786	-4.74045	3.24E-06	4.59E-05	3.8424364
DONSON	-0.0716	0.9516	9.01219	-3.21875	0.0014226	0.0092875	-1.8745877
LOC647070	-0.0718	0.9515	6.56790	-2.75926	0.0061344	0.0298726	-3.201256
TIMELESS	-0.0739	0.9501	9.10741	-3.29029	0.0011151	0.0075917	-1.6508297
MCM4	-0.0744	0.9497	9.88118	-3.25134	0.0012739	0.0084435	-1.7732061
INTS7	-0.0750	0.9493	8.08493	-2.82277	0.005066	0.0256654	-3.029399
FANCA	-0.0767	0.9483	7.43314	-3.78232	0.0001861	0.0016571	0.0112981
ATG4D	-0.0780	0.9474	5.88830	-3.11492	0.0020103	0.0121568	-2.1911788
COPS6	-0.0795	0.9464	10.70109	-3.48763	0.0005571	0.0041631	-1.0098486
SLBP	-0.0811	0.9453	11.50970	-3.08043	0.0022505	0.0132269	-2.2941731
ZAK	-0.0819	0.9448	8.87820	-2.79541	0.0055037	0.0273531	-3.1039033
AC002064.5	-0.0826	0.9443	3.20054	-3.20959	0.0014672	0.0095337	-1.9029126
REV1	-0.0838	0.9436	8.86606	-3.47835	0.000576	0.0042839	-1.0407661
CA4	-0.0839	0.9435	4.77904	-3.33040	0.000971	0.0067346	-1.5233602
FANCI	-0.0839	0.9435	10.05890	-2.73191	0.0066545	0.0317886	-3.2741382
WDR90	-0.0853	0.9426	7.18844	-3.57469	0.000406	0.0031939	-0.7160849
NUCKS1	-0.0876	0.9411	12.87430	-3.05421	0.0024505	0.014229	-2.3717601
FTSJ2	-0.0880	0.9408	9.55754	-3.51761	0.0004999	0.0037946	-0.9094428
FUZ	-0.0887	0.9404	6.11834	-3.58727	0.0003876	0.00308	-0.6730839
LDB3	-0.0891	0.9401	6.96091	-3.39670	0.0007701	0.0055121	-1.3095085
EIF1AX	-0.0901	0.9395	11.38763	-3.46658	0.0006008	0.0044266	-1.0798591
SKA3	-0.0901	0.9395	7.57458	-3.09608	0.0021384	0.012735	-2.2475647
CHTF18	-0.0912	0.9387	7.19533	-3.09519	0.0021446	0.01276	-2.2502213
UNC5A	-0.0926	0.9378	4.90743	-2.96600	0.0032493	0.0180015	-2.6281904
CD2AP	-0.0931	0.9375	9.57083	-3.89323	0.0001209	0.0011381	0.4151686
IL17D	-0.0934	0.9373	3.69589	-3.17893	0.0016261	0.0102891	-1.9971486
NMRAL1	-0.0944	0.9366	9.02895	-5.14802	4.66E-07	7.97E-06	5.6987462
TTTY13	-0.0950	0.9362	3.39380	-2.60910	0.009514	0.0419969	-3.5927679
MTBP	-0.0969	0.9351	5.11839	-2.84986	0.0046641	0.023997	-2.9549582
TIGD5	-0.0978	0.9344	7.25156	-3.07684	0.0022769	0.0133697	-2.3048221
BX538226	-0.1045	0.9301	2.79808	-2.94811	0.0034379	0.0188633	-2.6793311
UMOD	-0.1057	0.9294	3.68737	-2.88742	0.0041546	0.0218596	-2.8506147
LOC91548	-0.1066	0.9288	8.33497	-2.70815	0.0071381	0.0335626	-3.336876
TRMT6	-0.1093	0.9270	8.91853	-2.65071	0.008441	0.0381455	-3.4863949
RAC3	-0.1097	0.9268	5.04430	-3.58025	0.0003978	0.0031487	-0.6971226
TMEM145	-0.1122	0.9252	3.92104	-2.74848	0.0063349	0.0305827	-3.23007
CEL	-0.1139	0.9241	3.58751	-3.37665	0.0008263	0.005852	-1.3745717
GPSM2	-0.1150	0.9234	8.15660	-2.88101	0.0042379	0.022252	-2.868531
FAM19A5	-0.1180	0.9214	4.83958	-3.69026	0.0002642	0.0022214	-0.3158596

C15orf59	-0.1200	0.9202	5.32637	-2.83912	0.0048197	0.0246696	-2.9845381
COQ4	-0.1201	0.9201	8.09217	-4.09927	5.29E-05	0.0005405	1.1934639
LOC101928221	-0.1208	0.9197	5.02710	-3.09872	0.00212	0.0126616	-2.2396892
TMEM161A	-0.1216	0.9192	8.34191	-2.87284	0.0043461	0.0227146	-2.8912794
LOC101927550	-0.1237	0.9179	4.01687	-2.70403	0.0072251	0.0338952	-3.3476898
NUP133	-0.1243	0.9175	9.96235	-3.18138	0.0016128	0.0102457	-1.9896604
LOC101929255	-0.1248	0.9172	4.17410	-2.61329	0.0094007	0.0415549	-3.5821258
LOC102725408	-0.1258	0.9165	3.23340	-2.80980	0.0052694	0.0264821	-3.0648046
ATXN10	-0.1266	0.9160	11.38498	-3.85701	0.0001394	0.0012923	0.2820928
YWHAQ	-0.1319	0.9126	12.33712	-3.24474	0.0013028	0.0085988	-1.7938235
GNPAT	-0.1341	0.9113	10.06190	-4.07404	5.86E-05	0.0005944	1.0962047
MEG3	-0.1347	0.9108	5.72719	-2.79172	0.0055652	0.0275496	-3.1138835
LINC00265	-0.1408	0.9070	4.35344	-4.20713	3.38E-05	0.0003641	1.6152277
XRCC3	-0.1423	0.9061	4.93467	-3.03597	0.0025991	0.0149537	-2.425366
LBR	-0.1439	0.9051	12.16735	-3.70237	0.0002524	0.002135	-0.2732616
LETM2	-0.1440	0.9050	4.43336	-3.16934	0.001679	0.0105494	-2.0264683
GLO1	-0.1457	0.9039	11.34038	-2.79676	0.0054813	0.027285	-3.1002415
C16orf59	-0.1480	0.9025	6.71693	-3.00784	0.0028446	0.016057	-2.5074353
FER1L4	-0.1492	0.9018	4.70517	-2.68933	0.0075435	0.0350227	-3.3862008
RAD54L	-0.1520	0.9000	7.20248	-2.66511	0.0080956	0.037011	-3.449186
C16orf52	-0.1552	0.8980	9.36553	-2.96217	0.0032888	0.0181975	-2.6391476
ZCCHC3	-0.1583	0.8961	8.29055	-4.11598	4.94E-05	0.0005101	1.2581358
FIP1L1	-0.1590	0.8956	9.00686	-2.80461	0.0053528	0.0268151	-3.078912
LOC100506289	-0.1621	0.8937	3.13345	-2.95340	0.0033811	0.0186264	-2.6642261
NUTM1	-0.1648	0.8921	4.97857	-2.92838	0.0036575	0.0198083	-2.7353925
LINC00702	-0.1663	0.8911	3.26047	-2.96153	0.0032955	0.0182095	-2.6410014
SUN1	-0.1666	0.8909	8.78655	-2.59326	0.0099538	0.0435098	-3.6328576
C11orf95	-0.1673	0.8905	7.52961	-2.97832	0.003125	0.0173743	-2.5928098
PAICS	-0.1683	0.8899	10.85292	-3.43684	0.0006681	0.0048651	-1.1781044
ZBED3	-0.1697	0.8891	6.42073	-2.72987	0.0066947	0.0318593	-3.2795237
PRKCI	-0.1697	0.8890	9.51988	-2.71942	0.0069049	0.0326864	-3.3071843
SLC25A10	-0.1700	0.8888	6.71598	-3.17612	0.0016414	0.010355	-2.0057573
HMGB2	-0.1723	0.8874	13.21777	-2.75254	0.0062586	0.0303361	-3.219217
ANKS6	-0.1729	0.8871	6.85779	-3.84056	0.0001486	0.0013577	0.2220324
MYOM3	-0.1731	0.8869	5.44231	-3.13307	0.0018936	0.0116645	-2.1365286
DKFZp451A211	-0.1741	0.8863	5.42257	-3.84894	0.0001438	0.0013277	0.252623
MED20	-0.1748	0.8859	8.30255	-3.66004	0.0002959	0.0024406	-0.4216337
LOC646903	-0.1787	0.8835	4.09343	-3.33788	0.0009461	0.0065837	-1.4994068
RPL7L1	-0.1795	0.8830	11.24564	-3.10884	0.0020508	0.0123182	-2.2093991
BUB3	-0.1814	0.8819	10.95586	-4.32571	2.05E-05	0.0002341	2.0901906
FLJ37201	-0.1821	0.8814	4.36636	-3.60075	0.0003689	0.0029569	-0.6268828
B3GNT6	-0.1849	0.8797	5.13390	-2.62423	0.0091104	0.0406947	-3.5542674
ARSK	-0.1851	0.8796	6.25693	-2.85578	0.0045801	0.0236814	-2.9385837
DSN1	-0.1910	0.8760	7.89106	-2.71198	0.0070579	0.0332602	-3.3267778
MCAM	-0.1928	0.8749	9.40740	-2.68007	0.0077505	0.0358246	-3.4103482

NCAPH2	-0.1970	0.8724	7.75076	-3.05680	0.00243	0.0141517	-2.3641201
LRP4	-0.2006	0.8702	3.82650	-3.18483	0.0015943	0.0101821	-1.9790869
DUSP14	-0.2034	0.8685	7.09965	-2.94029	0.0035234	0.0192484	-2.7015894
COG4	-0.2057	0.8671	7.67985	-3.43380	0.0006754	0.0049066	-1.1881159
KIF22	-0.2080	0.8657	8.44122	-3.60621	0.0003615	0.0029015	-0.6080842
SPATA5L1	-0.2085	0.8654	8.69604	-3.82368	0.0001587	0.0014343	0.1606442
LOC101927206	-0.2094	0.8649	4.32266	-4.09113	5.47E-05	0.000557	1.161998
ZNF786	-0.2097	0.8647	6.25754	-2.61338	0.0093983	0.0415549	-3.5819012
PSMD4	-0.2100	0.8645	10.86546	-2.87061	0.004376	0.022833	-2.8974724
KIF20A	-0.2139	0.8622	8.62649	-2.76427	0.0060432	0.0294973	-3.1878324
PCNA	-0.2176	0.8600	12.23171	-2.68962	0.007537	0.0350183	-3.3854289
TFDP1	-0.2342	0.8501	11.00145	-3.33606	0.0009521	0.0066109	-1.5052523
CDC7	-0.2428	0.8451	8.46887	-2.81777	0.0051435	0.0259809	-3.0430502
ARHGAP11A	-0.2449	0.8439	6.18659	-2.80724	0.0053103	0.0266238	-3.0717591
PHF6	-0.2482	0.8420	11.05773	-2.79219	0.0055573	0.0275321	-3.112602
NPY	-0.2502	0.8408	4.94297	-2.88854	0.0041402	0.0218022	-2.8474834
C21orf58	-0.2635	0.8331	6.79660	-3.87607	0.0001294	0.0012116	0.3519793
GINS3	-0.2642	0.8327	8.03609	-3.08913	0.0021875	0.0129417	-2.2682938
LRP11	-0.2657	0.8318	7.67356	-2.65154	0.0084205	0.0381078	-3.4842323
NR2F6	-0.2669	0.8311	7.48992	-4.57606	6.84E-06	8.89E-05	3.1311508
GTPBP3	-0.2718	0.8283	7.43434	-4.11324	4.99E-05	0.0005146	1.247507
RANBP1	-0.2738	0.8271	11.29015	-2.97014	0.003207	0.0177829	-2.6163069
ANKH	-0.2744	0.8268	9.29347	-2.87929	0.0042604	0.0223411	-2.8733084
JMJD1C	-0.2754	0.8262	9.68971	-3.25548	0.0012561	0.0083713	-1.7602852
CDCA2	-0.2761	0.8258	8.70133	-3.15257	0.0017752	0.0110436	-2.0774857
IGF2BP1	-0.2812	0.8229	5.70185	-3.06897	0.0023359	0.0136651	-2.3281488
XYLT1	-0.2879	0.8191	7.76519	-2.64228	0.008649	0.0390293	-3.508058
CBX2	-0.2905	0.8176	6.51084	-3.16270	0.0017165	0.0107422	-2.0467076
SKP2	-0.3045	0.8097	9.52590	-3.68748	0.0002669	0.0022401	-0.3256228
DDX11	-0.3061	0.8088	8.30544	-4.32612	2.04E-05	0.0002341	2.0918596
CASC5	-0.3244	0.7986	9.10887	-3.56183	0.0004256	0.0033268	-0.759908
C17orf80	-0.3259	0.7978	7.34450	-3.35841	0.0008808	0.0062051	-1.4334785
MAMDC4	-0.3304	0.7953	5.38860	-3.12475	0.0019463	0.0118728	-2.1616312
MYH10	-0.3412	0.7894	9.10337	-2.74802	0.0063436	0.0305827	-3.2313011
LOC729680	-0.3540	0.7824	4.63010	-3.53245	0.0004737	0.0036263	-0.8594545
LOC102724967	-0.3699	0.7738	6.17342	-4.13891	4.49E-05	0.0004683	1.3473285
C9orf40	-0.3845	0.7661	8.92689	-3.50305	0.000527	0.003971	-0.9582998
RCC1	-0.3875	0.7644	8.69309	-2.93077	0.0036302	0.0197117	-2.7286204
BEND3	-0.4033	0.7562	6.61797	-3.81619	0.0001633	0.001473	0.1335101
BUB1B	-0.4184	0.7483	10.34232	-3.73378	0.0002241	0.0019345	-0.1621161
EXO1	-0.4334	0.7405	7.07598	-3.07482	0.002292	0.0134456	-2.3108317
SAC3D1	-0.5326	0.6913	9.32519	-5.27214	2.52E-07	4.65E-06	6.2897079