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Supplementary Material

Supplementary Figure S1. Boxplots of original and normalized gene expression in GEO datasets. (A, C, and E) Boxplots of original gene expression in GSE93798 (A), GSE37460 (C), and GSE104948 (E). (B, D, and F) Boxplots of normalized gene expression in GSE93798 (B), GSE37460 (D), and GSE104948 (F).

Supplementary Figure S2. Violin plot of initial expression after removing batch effects of the 14 downregulated DEGs, indicating that these DEGs were clearly decreased in patients with IgAN relative to healthy controls (P < 0.01).

Supplementary Figure S3. Cluster trees and heatmaps for ACR in different modules and relationships between key modules and clinical features of IgAN in WGCNA. (A) Cluster trees and heatmaps for ACR. (B) Scatterplots of GS vs. MM in the turquoise module with creatinine and eGFR in patients with IgAN. Correlations between GS and creatinine and eGFR were –0.16(P = 1.6e−07) and 0.0088 (P = 0.77), respectively.

Supplementary Figure S4. GO analyses of genes in the turquoise module showing Molecular functions (A) and Cellular components (B) with threshold count ⩾ 2 and P < 0.01.

Supplementary Table S1. Basic information of 23 IgAN-related datasets from the GEO database.

21 **Supplementary Table S2.** Basic information of the three GEO datasets analyzed in

22 this study.

23 **Supplementary Table S3.** General clinical information of patients with IgAN in the

24 GSE93798 dataset after exclusion of inappropriate samples.

25 **Supplementary Table S4.** General clinical information of 63 patients with IgAN

26 included in this study.

27 **Supplementary Table S5.** General clinical information of 12 healthy control

28 subjects included in this study.

29 **Supplementary Table S6.** All DEGs identified in the GSE93798 dataset.

30 **Supplementary Table S7.** All DEGs identified in the GSE37460 dataset.

31 **Supplementary Table S8.** All DEGs identified in the GSE104948 dataset.

32 **Supplementary Table S9.** Top 5 common downregulated DEGs identified using

33 the Degree, Radiality, Stress, and Betweenness algorithms.

34 **Supplementary Table S10.** Gene expression matrix of the 5 hub genes after

35 removal of batch effects.

36 **Supplementary Table S11.** GS and MM values with IgAN clinical traits in the

37 turquoise module.

38

39

A

Boxplot of original gene expression in GSE93798
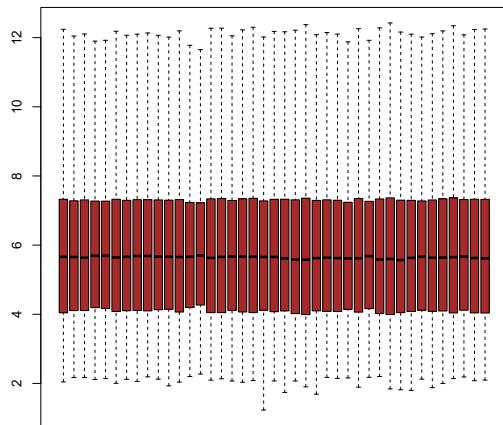
B

Boxplot of normalized gene expression GSE93798
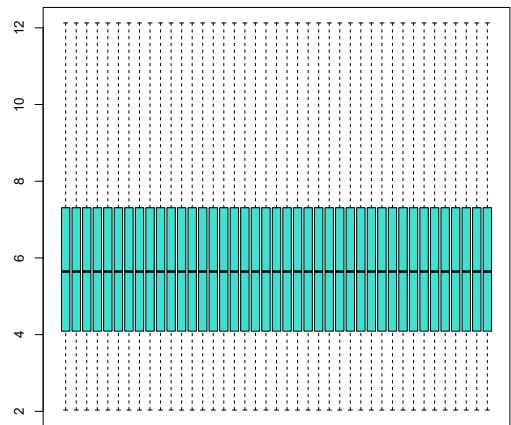
C

Boxplot of original gene expression in GSE37460
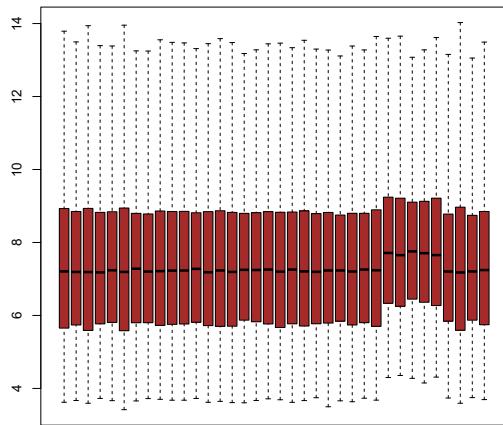
D

Boxplot of original gene expression in GSE37460
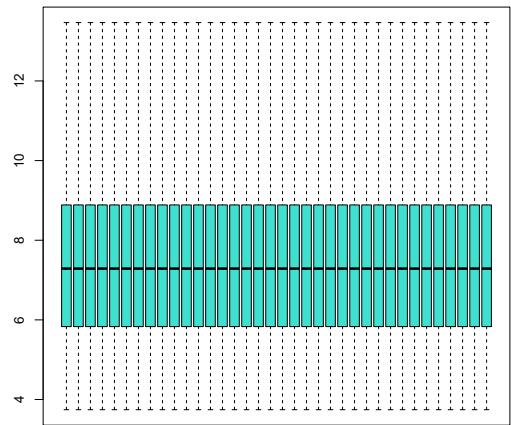
E

Boxplot of original gene expression in GSE104948
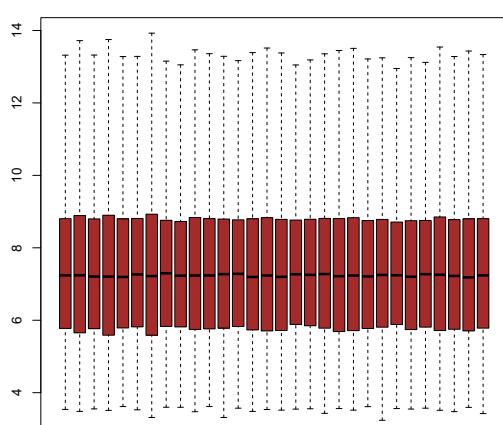
F

Boxplot of normalized gene expression GSE104948

Figue S2

A

A

B

Module membership vs. gene significance
cor=−0.16, p=1.6e−07

C

Module membership vs. gene significance
cor=0.0088, p=0.77
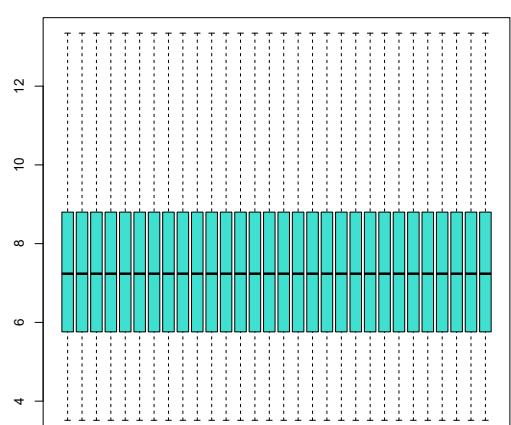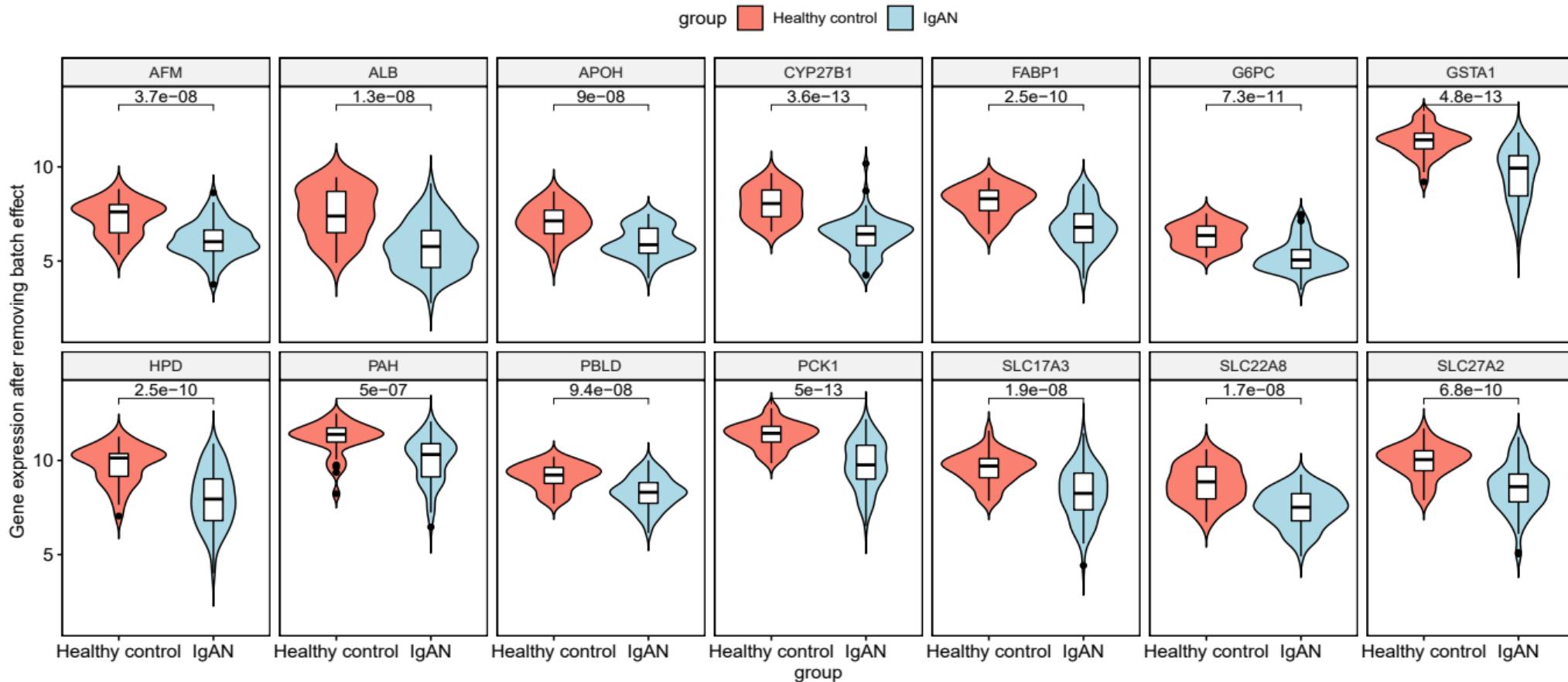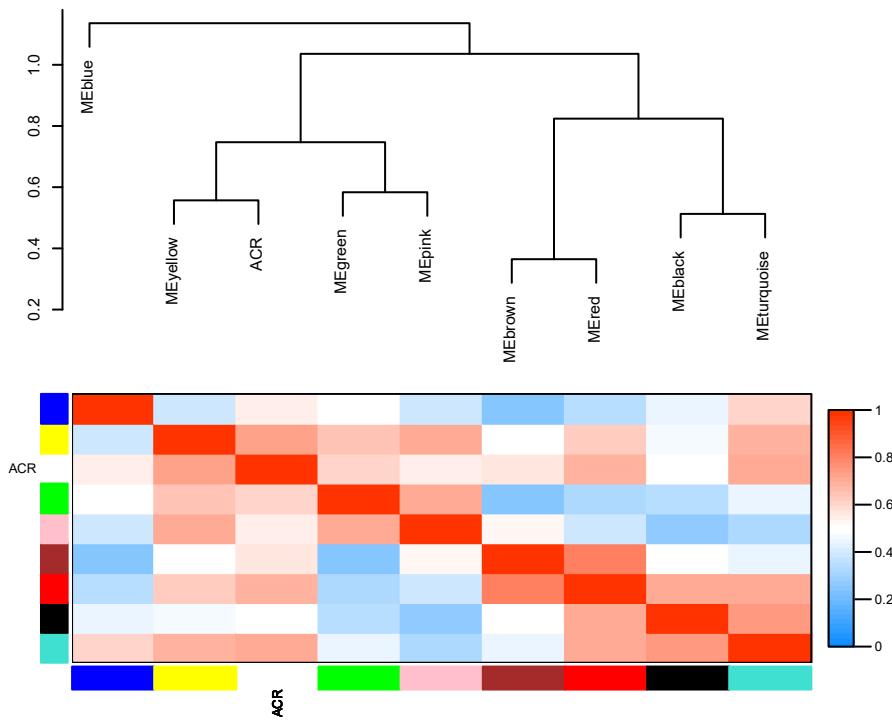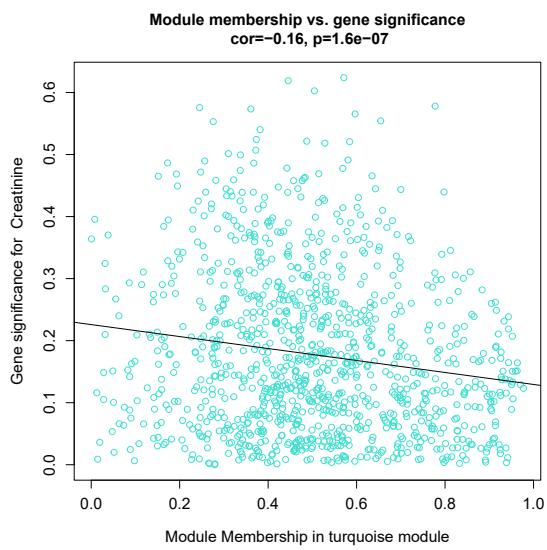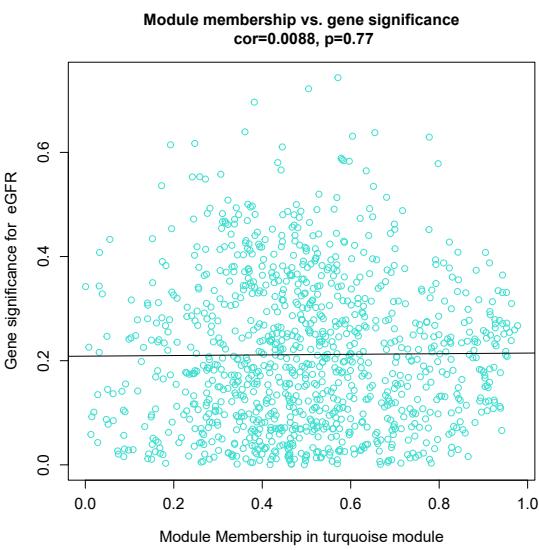
Figue S4

A
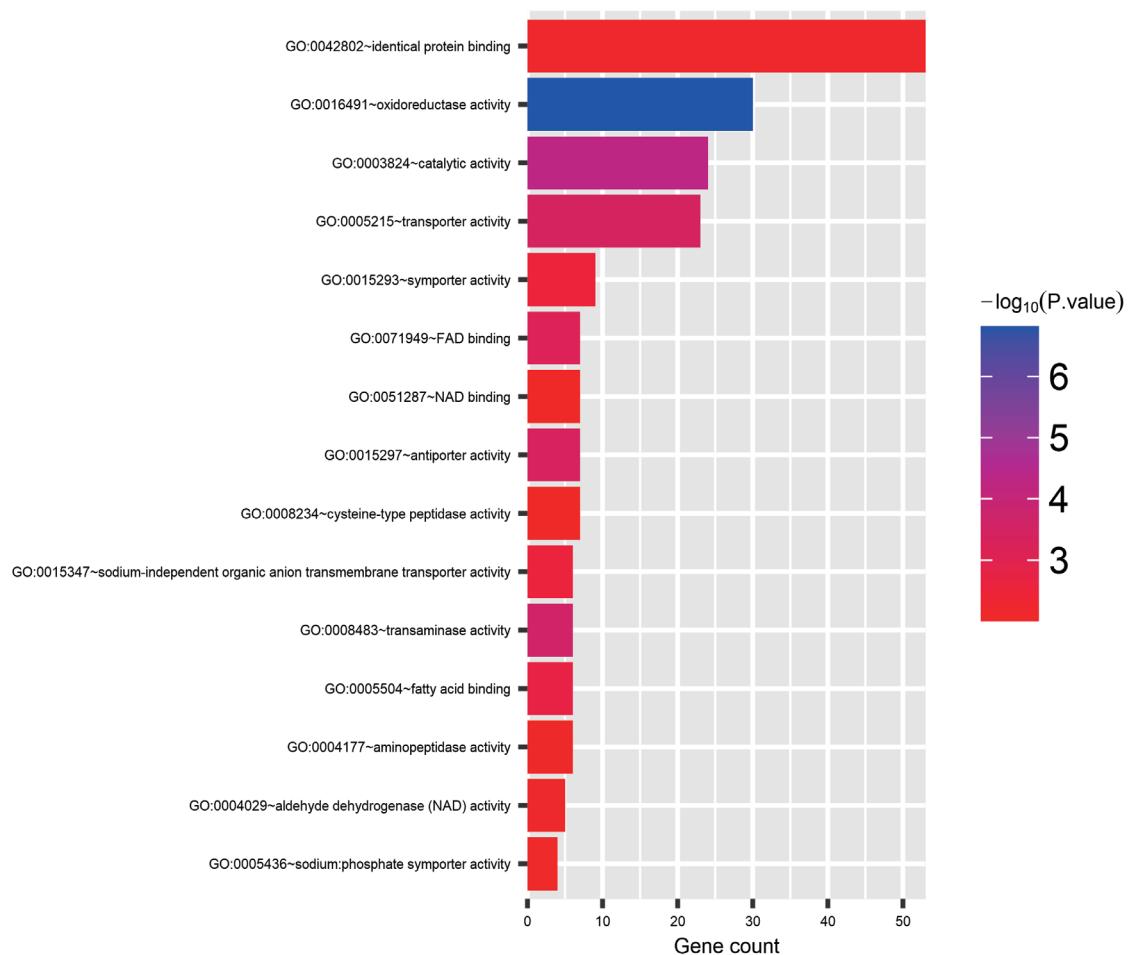
B
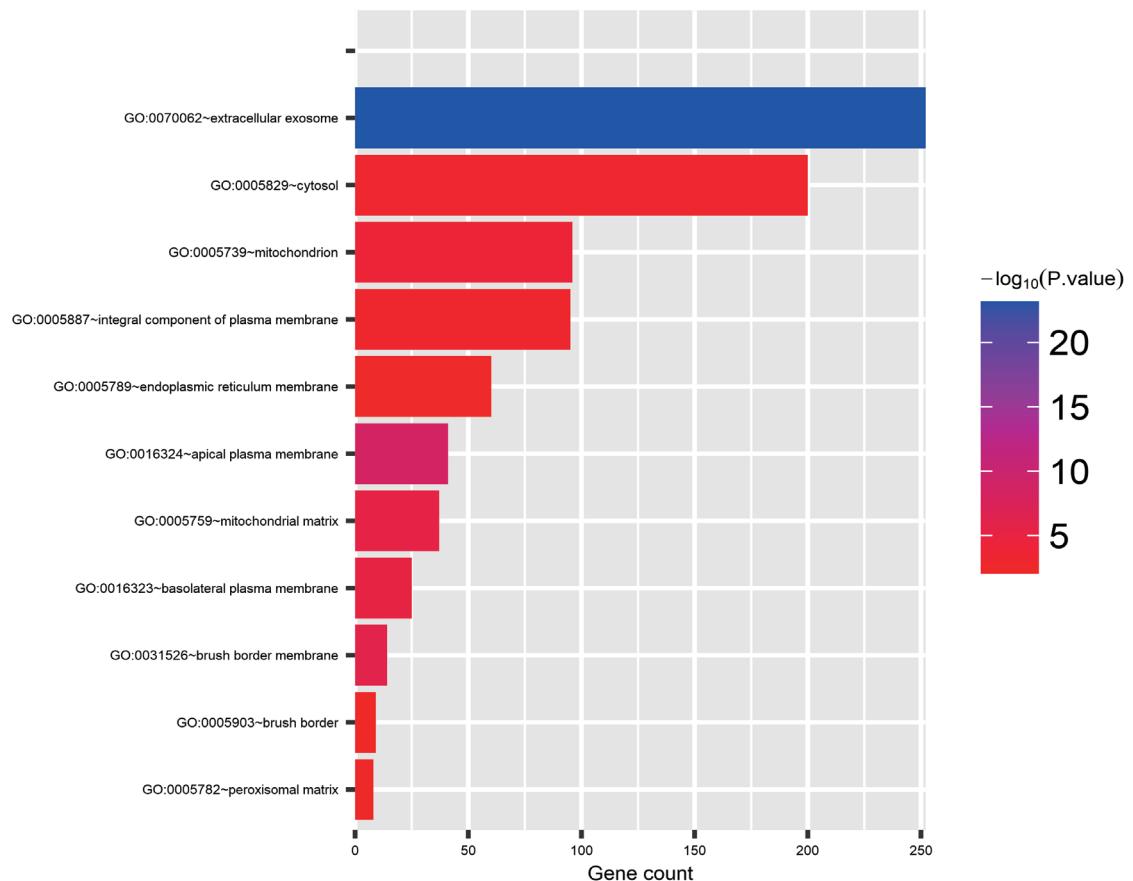
Table S1 Basic information of 23 IgAN-related datasets from the GEO database

Serial number	Platform	IgAN	Control	Study type	Tissue	Notes
GSE115857	GPL14951	55	7	Expression profiling by array	Renal tissue	
GSE104954	GPL24120	25	21	Expression profiling by array	Tubulointerstitium	
GSE104948	GPL24120	27	3	Expression profiling by array	Glomeruli	
GSE99340	GPL19184	50	0	Expression profiling by array	Glomeruli	
GSE99339	GPL19184	26	0	Expression profiling by array	Glomeruli	
GSE99325	GPL19184	24	0	Expression profiling by array	Tubulointerstitium	
GSE93798	GPL22945	20	22	Expression profiling by array	Glomeruli	
GSE73953	GPL4133	15	16	Expression profiling by array	Peripheral blood mononuclear cells (PBMCs)	
GSE60861	GPL13497	4	0	Expression profiling by array Non-coding RNA profiling by array	Kidney Biopsy	
GSE60860	GPL13497	2	0	Expression profiling by array Non-coding RNA profiling by array	Kidney Biopsy	
GSE45980	GPL13497	2	0	Expression profiling by array Non-coding RNA profiling by array	Kidney Biopsy	
GSE69438	GPL11670	2	0	Expression profiling by array	Tubulointerstitium	
GSE50469	GPL17662	22	0	Expression profiling by array	Glomeruli	

GSE58539	GPL10558	8	9	Expression profiling by array	Peripheral blood mononuclear cells (PBMCs)	
GSE47185	GPL14663	1	0	Expression profiling by array	Tubulointerstitium	
GSE47184	GPL14663	1	0	Expression profiling by array	Tubulointerstitium	
GSE37463	GPL14663	27	9	Expression profiling by array	Glomeruli	This dataset contains 2 superseries of GSE37455 and GSE37460, and IgAN- related dataset is only in GSE37460.
GSE37460	GPL14663	27	9	Expression profiling by array	Glomeruli	
GSE27676	GPL96	6	0	Expression profiling by array	Peripheral blood mononuclear cells (PBMCs)	
GSE35489	GPL14663/ GPL96	50	12	Expression profiling by array	Tubulointerstitium	
GSE35488	GPL14663	25	6	Expression profiling by array	Tubulointerstitium	
GSE35487	GPL96	25	6	Expression profiling by array	Tubulointerstitium	
GSE14195	GPL96	12	8	Expression profiling by array	Peripheral blood mononuclear cells (PBMCs)	

Table S2 Basic information of the three GEO datasets analyzed in this study

Serial number	Tissue	Platform	IgAN	Healthy control
GSE37460	Glomeruli	GPL14663	27	9
GSE104948	Glomeruli	GPL24120	27	3
GSE93798	Glomeruli	GPL22945	20	22

Note: The specimens in these datasets are derived from the kidney tissues of IgAN and Healthy control.

Table S3 General clinical information of patients with IgAN in the GSE93798 dataset after exclusion of inappropriate samples

Sample	Sex	Age,yr	Urine Albumin-to-Creatinine Ratio	Creatinine,μmol/L	eGFR	CKD Stage	BP	BP Medication	Steroids	Immuno suppressive Therapy	Oxford Classification				Progression
											M	E	S	T	
GSM2462561	Female	54	229	132	39.4	3	130/80	Yes	No	No	0	0	1	1	-4.55
GSM2462562	Male	46	323	155	45.6	3	150/90	Yes	No	No	1	1	1	1	0.6
GSM2462564	Female	45	155	132	40.5	3	140/80	Yes	No	No	1	0	1	1	-3.05
GSM2462567	Female	41	189	165	33	3	130/80	Yes	No	No	0	1	1	1	-5.37
GSM2462556	Male	49	37	124	58.4	3	125/80	No	No	No	0	1	0	1	-3.86
GSM2462573	Male	48	65	139	51.3	3	125/85	No	No	No	0	0	1	1	-18.99
GSM2462560	Male	58	70	107	65.6	2	140/80	Yes	No	No	0	0	1	0	-8.49
GSM2462565	Male	35	14	103	80.7	2	120/80	Yes	No	No	0	0	1	0	2.40
GSM2462563	Male	58	61	117	67.9	2	130/90	Yes	No	No	0	0	1	2	-0.84
GSM2462555	Male	34	5	124	64.9	2	126/85	Yes	No	No	0	0	1	1	1.18
GSM2462566	Male	53	74	96	77.4	2	110/70	No	Yes	No	0	1	0	0	-27.74
GSM2462571	Male	61	560	84	86	2	150/95	Yes	No	No	0	0	1	0	-3.94
GSM2462572	Male	65	490	93	74	2	155/95	Yes	No	No	0	0	1	1	-1.88
GSM2462557	Female	17	15	71	108.2	1	130/80	No	No	No	1	1	1	0	-2.24
GSM2462558	Male	30	75	91	97.1	1	130/90	Yes	No	No	0	0	1	0	4.49
GSM2462559	Male	20	1.2	76	124.8	1	100/60	No	No	No	0	0	0	0	-6.94
GSM2462568	Female	23	0.6	68	109.3	1	110/65	No	No	No	0	0	0	0	3.92
GSM2462570	Male	24	12	77	125.6	1	120/70	No	No	No	0	0	0	0	-17.45
GSM2462574	Female	23	13	66	113.3	1	120/70	No	No	No	0	1	1	0	3.77

Table S4 General clinical information of 63 patients with IgAN included in this study

Case number	Gender	Age	Serum creatinine(μmol/L)	eGFR	BUN （mmol/L）	Cysc(mg/L)	UA(μmol/L)	24U-pro(mg/24h)	ACR(mg/g)	M	E	S	T	C	Lee classification
1	Female	52	158.5	32	6.1	2.05	338	816	892.1	1	0	1	1	1	IV
2	Male	28	154	52	7.3	1.46	472	3931.4	662.3	1	0	1	1	1	IV
3	Male	43	136	55	7.05	1.41	456	2765.3	1453.6	1	0	1	1	1	IV
4	Female	42	97	62	3.1	1.14	342	3632	1920.9	1	0	1	1	1	IV
5	Male	31	103	83	4.9	1.11	312	1251	575.6	1	0	1	1	1	IV
6	Female	30	83	82	5.4	1.04	383	1282.6	356.2	1	0	1	1	1	IV
7	Male	31	99	87	6.1	0.89	435	205.2	139	1	0	1	0	0	IV
8	Female	30	74	94	6.2	1.11	380	2081.7	552.3	0	0	1	0	0	IV
9	Male	23	74	124	3	0.75	283	228.8	107.5	1	0	1	0	0	III
10	Female	37	44	124	3.5	0.63	238	1178	2271.7	0	0	1	0	1	III
11	Male	24	352.8	20	8	2.63	540	3353	458.1	1	0	1	2	0	V
12	Male	42	110.2	71	6	1.03	458	555	122.7	1	0	1	0	0	III
13	Male	28	89	101	4	0.99	351	840	273.3	1	0	1	0	1	III-IV
14	Female	64	79	69	4.9	1.04	320	1890	1015.7	0	0	0	0	0	III-IV
15	Male	27	80	116	4.4	1.02	226	451	146.6	1	0	1	1	1	IV
16	Female	50	63	99	3.1	0.90	296	441	146.7	0	0	0	0	0	III
17	Male	44	104	75	4.8	1.58	372	3741.4	525.6	1	1	1	0	0	III-IV
18	Female	27	71	101	5	0.89	309	1102.5	1969.3	1	1	1	0	1	IV
19	Male	26	77	119	3.7	1.27	477	357	252.9	1	0	0	0	0	III-IV
20	Male	20	445	15	21.4	4.57	307	3268.4	2854.7	1	1	1	2	1	V

21	Male	52	294	20	17.5	2.84	539	5022	1584.1	1	0	1	2	1	V
22	Male	50	79.1	99	3.6	1.03	297	306.6	281.2	1	0	1	1	0	IV
23	Male	33	96	89	5.1	1.17	396	2541.5	465.5	1	0	1	1	1	IV
24	Female	36	96	66	4.8	1.07	318	538.5	270	1	0	1	0	0	IV
25	Male	20	98	91	5.6	1.02	418	1110	741.6	1	0	1	0	1	IV
26	Male	55	96.3	76	7.2	1.23	493	944	430.3	1	1	0	1	0	IV
27	Female	32	60	116	4.3	0.94	267	552	199.4	0	0	0	0	1	III
28	Male	35	140	56	6.5	1.43	313	1304.8	946.1	1	0	1	1	0	IV
29	Male	31	81.3	111	4.9	0.93	336	368	73.7	0	0	1	1	1	IV
30	Female	41	49	117	3.6	0.65	255	568.4	359.5	0	0	0	0	0	III
31	Male	38	382	16	13.8	3.16	517	3914	1536.9	1	0	1	2	0	V
32	Female	71	47.1	95	5.3	1.05	246	3271.2	1293.7	1	0	1	0	1	III
33	Male	41	131	58	5.8	1.39	527	7657.6	1535.8	1	0	1	1	1	IV
34	Female	49	100	57	5.8	0.93	209	681.6	303.2	1	0	1	1	0	IV
35	Male	45	120.7	62	5.8	1.5	256	1042.8	540.9	1	0	1	1	1	IV
36	Male	24	151	55	5.2	1.17	410	2513	970.4	1	0	1	0	1	IV
37	Female	38	84	76	4.8	1.01	326	402.6	819.9	1	0	1	0	1	IV
38	Female	33	160	36	6.6	1.96	423	4613.8	2402	1	0	1	1	1	IV
39	Male	55	98	75	5.1	1.07	294	697.4	279.5	1	0	0	0	0	III
40	Female	29	75	93	5.5	0.98	270	556.8	569.2	1	0	1	1	0	IV
41	Female	26	76	94	5.1	0.87	293	1020.6	204.4	1	1	0	0	0	III-IV
42	Male	27	88	103	5.3	0.88	395	950.3	202.8	1	1	1	0	1	III-IV
43	Male	45	95	83	5.2	0.88	446	236.5	40.5	0	0	1	0	0	III-IV
44	Female	36	70	97	4.2	0.9	414	252	270.8	0	0	1	0	1	III
45	Female	49	99	58	5.8	1.19	274	716	1021.7	1	0	1	1	1	IV

46	Female	43	90	67	3.9	1.14	361	2406.6	963.4	0	0	1	0	0	III-IV
47	Female	31	69	102	2.9	0.75	303	500.4	1911.1	0	0	0	0	0	III
48	Male	28	108.4	80	4.5	1.25	435	3670.5	886.6	1	0	1	1	1	IV
49	Female	49	77.9	77	4.9	1.17	349	701	392	1	0	1	0	0	IV
50	Male	23	88	106	4.6	1.17	174	784.3	803.8	1	0	1	1	1	IV
51	Female	59	102	52	6.7	1.37	375	3909.4	2098.8	1	0	1	1	0	IV
52	Female	56	69.5	84	5.3	1.01	255	1350	501.4	0	0	1	0	0	III-IV
53	Male	40	122	64	6	1.3	454	1911.6	282.9	1	1	1	0	0	III-IV
54	Female	50	83	71	5.3	0.98	347	1453.5	578.7	1	0	1	1	1	IV
55	Male	50	104	72	3.7	1.08	144	137.6	8.5	0	0	0	0	1	III-IV
56	Male	45	172	40	5.8	1.74	360	1773.2	500.2	1	0	1	1	0	IV
57	Male	28	121	70	4.7	1.16	413	233.1	95.1	1	0	1	1	0	IV
58	Female	47	75	82	6.5	1.04	369	1520.2	529	0	1	1	1	1	IV
59	Male	28	90	100	4.5	0.94	417	1494	390.2	1	0	0	0	1	III
60	Female	48	137	39	9.6	1.65	445	1791.3	837	1	1	1	1	0	IV
61	Female	46	44	117	4.3	0.58	384	1166.4	1520.9	0	0	0	0	0	III
62	Male	27	127	66	5.5	1.16	489	3146.4	881.4	1	1	1	0	1	III-IV
63	Male	18	96	99	4.3	0.87	517	836	226.3	1	0	1	0	0	III

Table S5 General clinical information of 12 healthy control subjects included in this study

Healthy control sample	sex	Age,yr	Creatinine ,μmol/L	eGFR	BUN,mmol/L	Cysc,mg/L	Uric acid ,μmol/L	24U-pro ,mg/24h	Urine Albumin-to-Creatinine Ratio,mg/g
HC 1	Male	45	45	130	3.4	0.56	245	145	25.4
HC 2	Male	56	45	120	4.3	0.45	324	123	17.8
HC 3	Female	67	43	101	5.1	0.54	325	143	23.5
HC 4	Male	65	41	117	3.5	0.43	245	124	24.6
HC 5	Female	63	56	95	4.2	0.82	267	145	18.6
HC 6	Male	57	56	107	3.6	0.46	278	146	18.9
HC 7	Male	58	36	130	4.6	0.78	327	150	15.6
HC 8	Female	52	37	118	4.3	0.58	347	132	20.4
HC 9	Female	61	46	103	4.1	0.67	452	143	26.3
HC 10	Male	53	65	106	5.1	0.76	367	138	24.6
HC 11	Male	49	54	117	4.8	0.61	387	149	21.4
HC 12	Female	70	56	91	3.9	1.01	365	138	23.6

Table S6 All DEGs identified in the GSE93798 dataset

Gene symbol	logFC	AveExpr	t	P.Value	adj.P.Val	B
FOSB	-6.289019018	8.063847414	-23.38144236	4.28E-26	8.43E-22	48.30009791
DUSP1	-2.370905904	7.853314766	-20.31501751	1.11E-23	1.09E-19	43.18762435
PCDH18	1.610023084	6.315998763	17.4106943	4.20E-21	2.76E-17	37.60363865
RNF186	-2.018016661	6.604720111	-16.59059349	2.57E-20	1.27E-16	35.87589177
FOS	-4.621790837	8.325760192	-16.41786948	3.80E-20	1.50E-16	35.50280508
ZFP36	-2.327003482	9.473161679	-15.91527329	1.20E-19	3.96E-16	34.39840548
EGR1	-2.745621084	7.870757706	-15.81620778	1.52E-19	4.27E-16	34.17736886
LYL1	1.183061051	6.704706961	14.88599957	1.39E-18	3.42E-15	32.046372
CEBPD	-2.288957142	9.305391512	-14.61569777	2.69E-18	5.86E-15	31.4078549
JUN	-2.248258748	9.111591173	-14.57538739	2.97E-18	5.86E-15	31.31187061
CYP27B1	-2.27167444	5.643306493	-14.34206268	5.30E-18	9.50E-15	30.75237246
CSRNP1	-2.139593467	8.538650083	-13.82382527	1.96E-17	2.97E-14	29.48541832
DEPDC7	-2.505566689	4.84862484	-13.62952218	3.23E-17	4.54E-14	29.00164101
ERRFI1	-1.724939775	10.56367543	-13.48052912	4.75E-17	6.24E-14	28.62739751
PPP1R10	-1.036730772	7.448865362	-13.33470274	6.94E-17	8.55E-14	28.25833153
ETNK2	-1.001154203	5.794954643	-13.24593142	8.76E-17	1.01E-13	28.03231142
SOX17	1.739492592	6.648895465	13.15967335	1.10E-16	1.20E-13	27.81170552
KLF4	-2.219034936	6.824061089	-13.03571483	1.52E-16	1.58E-13	27.49297376
ATF3	-2.093246079	6.627960657	-12.86112716	2.43E-16	2.28E-13	27.04063008
GATA3	1.887230476	8.024489515	12.8359363	2.59E-16	2.28E-13	26.9750299
COL1A2	2.39493239	7.543250367	12.82584914	2.67E-16	2.28E-13	26.9487381
APOLD1	-3.768081152	8.967159782	-12.76420204	3.14E-16	2.48E-13	26.78776393
C8orf4	1.657909663	10.08171764	12.74043405	3.35E-16	2.54E-13	26.7255657

SLC19A2	-1.656797351	6.879320041	-12.70569974	3.68E-16	2.68E-13	26.63453473
FPR3	1.352092209	4.517118259	12.69195794	3.82E-16	2.69E-13	26.59847618
EMP3	1.068978312	7.950185853	12.66823975	4.07E-16	2.76E-13	26.53618038
TIPARP	-1.770088858	9.398886509	-12.39220547	8.60E-16	5.47E-13	25.80564942
PER1	-1.665091474	7.702722264	-12.26852299	1.21E-15	7.21E-13	25.47500485
NR4A2	-2.442532405	5.396133833	-12.06927761	2.09E-15	1.11E-12	24.93801701
JUNB	-1.878995417	7.839178416	-12.05010252	2.21E-15	1.14E-12	24.88605495
GUCY1A3	1.040248318	7.910769213	11.98550044	2.64E-15	1.33E-12	24.71062482
GDF15	-1.887634344	5.83268112	-11.70462481	5.79E-15	2.65E-12	23.94130628
CD44	1.050814499	6.522545633	11.55298224	8.90E-15	3.73E-12	23.5214945
FXYD5	1.111372573	6.701036845	11.50446321	1.02E-14	4.11E-12	23.38651104
RASD1	-2.630223752	8.375242167	-11.46279113	1.15E-14	4.47E-12	23.27032001
NETO2	1.023455156	6.480826797	11.39044556	1.41E-14	5.25E-12	23.06804181
BHLHE40	-1.737513108	6.987039078	-11.27253133	1.98E-14	7.23E-12	22.73682309
PDE4B	-1.215424132	7.173222976	-11.192373	2.50E-14	8.85E-12	22.5105768
BRE-AS1	-2.647193542	5.749064358	-11.18959062	2.52E-14	8.85E-12	22.50270781
GSTA3	-1.482543796	5.338985542	-11.17629826	2.61E-14	8.90E-12	22.46510047
KCNK5	-1.820754002	6.361329641	-11.17540176	2.62E-14	8.90E-12	22.46256316
NR4A1	-2.170498701	7.479667893	-11.12460024	3.04E-14	9.97E-12	22.3186049
SYNPO2	1.041420586	7.799855881	11.11713979	3.10E-14	1.00E-11	22.29743432
KLF6	-1.415310668	9.016389069	-11.03444367	3.94E-14	1.21E-11	22.06225844
PHLDA1	-1.610476003	7.692267323	-10.95261468	5.00E-14	1.43E-11	21.82863156
PTGS1	1.481740966	6.681142706	10.94921942	5.05E-14	1.43E-11	21.81891818
SPRY2	-1.513289974	8.004736918	-10.94680865	5.09E-14	1.43E-11	21.81202032
RASL11B	-1.226301496	10.47637132	-10.92551291	5.41E-14	1.46E-11	21.75105334

CD69	-2.840153867	6.936621465	-10.91815683	5.53E-14	1.46E-11	21.7299795
NR1H4	-1.12408522	5.315264351	-10.91680735	5.55E-14	1.46E-11	21.72611267
BTG2	-1.315704965	8.185199253	-10.88657199	6.07E-14	1.57E-11	21.63941095
KLF9	-1.150012653	7.49767663	-10.84801179	6.79E-14	1.74E-11	21.52865692
SRPX2	1.094323505	4.162152751	10.75933081	8.81E-14	2.20E-11	21.27317783
RDH10	-1.118861502	6.874104631	-10.75295354	8.98E-14	2.21E-11	21.25476458
SNAI2	1.279488106	9.197399691	10.74168006	9.28E-14	2.26E-11	21.22220087
NFIL3	-1.669225779	8.130204903	-10.68891717	1.08E-13	2.60E-11	21.06956505
CTH	-1.040060963	5.306394075	-10.61004824	1.37E-13	3.25E-11	20.84070547
PDK4	-1.918846043	10.32230478	-10.58259842	1.48E-13	3.48E-11	20.76085516
MECOM	1.221644043	8.849552247	10.54107042	1.68E-13	3.76E-11	20.63985874
FN1	1.459891585	7.352451777	10.45196624	2.19E-13	4.59E-11	20.37945978
PCK1	-1.884196328	9.828024846	-10.43586143	2.30E-13	4.65E-11	20.33228098
CD34	1.023894792	8.564410817	10.33809247	3.07E-13	5.97E-11	20.04512154
ATOH8	-1.53345873	8.195713463	-10.33011881	3.15E-13	6.02E-11	20.02164547
PLD6	-1.203702078	6.172391183	-10.26051222	3.88E-13	7.35E-11	19.81634886
TGFBI	1.234440069	7.584873149	10.20677738	4.56E-13	8.48E-11	19.6574224
COL5A2	1.101907726	6.029430857	10.18221126	4.91E-13	8.96E-11	19.58463762
LINC00473	-2.379659205	4.910491718	-10.17669784	4.99E-13	9.03E-11	19.5682914
CYSLTR1	1.104201544	5.921103149	10.13885058	5.60E-13	1.00E-10	19.45597269
SYT11	1.156226407	6.138479037	10.1244288	5.85E-13	1.04E-10	19.41312348
IP6K3	-2.308124021	6.586424158	-10.03440844	7.68E-13	1.29E-10	19.14503882
RUNDC3B	-1.211510593	4.50981674	-9.927843175	1.06E-12	1.71E-10	18.82630489
CPNE4	-1.536797726	6.725491489	-9.921626212	1.08E-12	1.73E-10	18.80766421
ESM1	-2.089218311	8.644590671	-9.911838163	1.11E-12	1.77E-10	18.7783059

Gene						
SOWAHC	-1.360138838	8.031964461	-9.761743817	1.76E-12	2.63E-10	18.32655206
NFKBIZ	-1.685608267	8.183953761	-9.750596796	1.83E-12	2.70E-10	18.29288542
HLX	1.296792033	7.432455815	9.68839423	2.21E-12	3.23E-10	18.10472545
CRYM	-1.487373271	8.582356855	-9.609783396	2.82E-12	3.99E-10	17.86622231
GSTA1	-2.099860699	10.2395768	-9.539893266	3.49E-12	4.76E-10	17.65351729
ECM1	1.7339616	8.682260193	9.539119819	3.50E-12	4.76E-10	17.65115991
MMP2	1.112447836	6.168747468	9.530560303	3.60E-12	4.85E-10	17.62506637
CMBL	-1.289093049	6.205174437	-9.496996045	3.99E-12	5.24E-10	17.5226572
SLC23A1	-1.336430081	5.800488417	-9.48640119	4.12E-12	5.37E-10	17.4903014
VNN1	-1.415773321	5.554773341	-9.484707956	4.15E-12	5.37E-10	17.4851291
ZNF331	-1.518394433	7.173070406	-9.416437048	5.13E-12	6.47E-10	17.27628366
WDR72	-1.144178649	6.211806389	-9.290815799	7.58E-12	9.11E-10	16.89048573
NUP58	-1.027915114	4.574911725	-9.279234859	7.86E-12	9.33E-10	16.85482135
ARG2	-1.119054073	7.58000798	-9.263292285	8.26E-12	9.52E-10	16.80569811
CRTAM	1.407606905	3.707520866	9.2073562	9.85E-12	1.11E-09	16.63309918
LOC727944	-1.29119028	5.648465333	-9.205839176	9.89E-12	1.11E-09	16.62841288
FOSL2	-1.097363953	6.708410252	-9.173965893	1.09E-11	1.22E-09	16.52988747
GADD45B	-1.366893586	9.163535061	-9.138980788	1.22E-11	1.34E-09	16.42160178
GPR65	1.155557853	4.887829048	9.138254796	1.22E-11	1.34E-09	16.41935313
MGST1	-1.38675407	7.198178994	-9.10786955	1.35E-11	1.46E-09	16.32518298
NR4A3	-1.493203778	4.503890596	-9.101839502	1.37E-11	1.48E-09	16.30648147
DDC	-1.154160888	7.487089736	-9.097015495	1.39E-11	1.48E-09	16.29151724
UGT2A3	-1.435177284	6.178951175	-9.089361175	1.43E-11	1.51E-09	16.26776759
SGK223	1.005888062	5.888032015	9.084988759	1.45E-11	1.52E-09	16.25419782
AK4	-1.157071268	8.981002951	-9.081202339	1.46E-11	1.53E-09	16.24244484

C3AR1	1.281981295	7.066115702	9.068665909	1.52E-11	1.57E-09	16.20351984
CDO1	1.075867851	5.887901167	9.037167995	1.68E-11	1.71E-09	16.10563807
ANKRD33B	-1.338346316	9.501462404	-9.010207286	1.83E-11	1.83E-09	16.0217628
ALDH6A1	-1.058863769	8.995098871	-8.974450245	2.05E-11	2.02E-09	15.91039012
HPD	-2.32322933	7.90172066	-8.941184621	2.28E-11	2.22E-09	15.80664322
RTN1	1.139223122	5.216199194	8.90949914	2.52E-11	2.41E-09	15.70770474
FNDC1	1.027791972	3.38596896	8.904158623	2.56E-11	2.43E-09	15.69101744
SHMT1	-1.188970981	6.845941499	-8.876128138	2.80E-11	2.58E-09	15.60337774
TOP2A	1.218074162	3.539982973	8.868369804	2.87E-11	2.63E-09	15.57910468
CXCL2	-3.051234035	6.560892488	-8.853490685	3.01E-11	2.73E-09	15.53253392
TSC22D3	-1.017363113	10.62117946	-8.845730104	3.08E-11	2.79E-09	15.50823371
NRARP	1.427634252	7.468818013	8.803844475	3.52E-11	3.14E-09	15.37696143
SH3GL2	-1.301308955	5.099768856	-8.781145466	3.79E-11	3.33E-09	15.30573813
CD14	1.158529143	7.18587169	8.75922001	4.06E-11	3.48E-09	15.23688688
RRM2	1.628594383	4.561516323	8.757928352	4.08E-11	3.48E-09	15.23282907
ID4	-1.002785064	8.513542418	-8.754897852	4.12E-11	3.49E-09	15.22330788
LPAR6	1.242977474	9.173360371	8.706880048	4.80E-11	3.95E-09	15.07230903
LRRC19	-1.644605846	6.454156466	-8.701926007	4.87E-11	3.99E-09	15.05671573
LRP2	-1.286424537	8.661190544	-8.701273597	4.88E-11	3.99E-09	15.054662
TWIST1	1.27551725	5.612937223	8.699525752	4.91E-11	4.00E-09	15.04915973
ACMSD	-1.904893393	7.258665635	-8.667530079	5.44E-11	4.32E-09	14.94837653
CEBPB	-1.585145331	9.54705806	-8.663888879	5.50E-11	4.34E-09	14.93689995
APOC1	1.569600394	5.757480228	8.644646186	5.85E-11	4.58E-09	14.8762254
TNFAIP3	-1.777081396	7.856017294	-8.611993737	6.50E-11	5.00E-09	14.77317562
GIPC2	-1.245104917	5.966763785	-8.607419455	6.59E-11	5.05E-09	14.75873011

DNAJB1	-2.040880348	7.494325048	-8.586905566	7.04E-11	5.36E-09	14.69391968
CSF1R	1.375683298	6.957000639	8.568769196	7.46E-11	5.61E-09	14.6365828
SLC7A9	-1.936734039	7.920749543	-8.503732336	9.20E-11	6.76E-09	14.43068372
COL3A1	1.384614392	9.258772697	8.49273935	9.53E-11	6.93E-09	14.39583683
FABP1	-1.766891509	7.169673994	-8.481076137	9.89E-11	7.16E-09	14.35885145
SULT1C2	-1.203538289	6.541048295	-8.471975546	1.02E-10	7.35E-09	14.3299825
SLC2A2	-1.894747172	5.834970208	-8.424939179	1.19E-10	8.43E-09	14.18063554
LINC01279	1.362298843	5.471282845	8.417034512	1.22E-10	8.62E-09	14.15551458
NAPSA	-1.072578708	6.645339634	-8.413459773	1.23E-10	8.67E-09	14.14415197
ESRRG	-1.054269883	6.435782371	-8.40349796	1.27E-10	8.87E-09	14.11248056
ANK2	-1.181145928	7.211150934	-8.357455872	1.47E-10	1.00E-08	13.96596762
CLEC5A	1.26236854	3.205834527	8.354072225	1.49E-10	1.01E-08	13.95519182
SLC17A1	-1.39540118	5.863238267	-8.293469105	1.81E-10	1.19E-08	13.76199539
ALDH8A1	-1.593931907	8.616825324	-8.277757365	1.91E-10	1.25E-08	13.71184806
MN1	1.139641273	5.985639501	8.256591191	2.04E-10	1.33E-08	13.64425314
TMEM252	-1.248198628	6.033119878	-8.248872173	2.09E-10	1.36E-08	13.6195912
ACADL	-1.037473486	4.860475839	-8.204931723	2.41E-10	1.53E-08	13.47909244
BHMT2	-1.36334082	8.119010334	-8.185535267	2.57E-10	1.60E-08	13.4170131
ALB	-1.92731472	5.020482548	-8.18336685	2.59E-10	1.60E-08	13.41007072
AEBP1	1.155616754	9.017656675	8.130526308	3.07E-10	1.86E-08	13.24075848
HGD	-1.123961287	6.989100056	-8.06392548	3.82E-10	2.23E-08	13.02698164
SLC17A3	-2.096407038	7.290505157	-8.052404926	3.96E-10	2.28E-08	12.98996111
ZNF189	-1.032774773	8.583576895	-8.025034969	4.33E-10	2.47E-08	12.90196106
AFM	-1.782379939	5.931404897	-8.016441607	4.46E-10	2.52E-08	12.87431763
KHK	-1.059735753	7.409257738	-8.012172177	4.52E-10	2.54E-08	12.8605811

MAFF	-1.909067526	8.855816435	-8.005269726	4.62E-10	2.57E-08	12.83836959
DUSP6	-1.012761952	8.448696376	-7.986297423	4.92E-10	2.69E-08	12.77729634
CYP8B1	-1.268470573	5.68841341	-7.962776443	5.31E-10	2.83E-08	12.70153615
BAG3	-1.060022194	8.783841845	-7.959394453	5.37E-10	2.84E-08	12.69063887
A1CF	-1.073539697	5.500873928	-7.948727577	5.56E-10	2.91E-08	12.65626202
ASS1	-1.066376611	10.48221515	-7.927771492	5.95E-10	3.08E-08	12.5886965
PBLD	-1.103006874	7.35493137	-7.927252328	5.96E-10	3.08E-08	12.58702215
IL33	1.019320911	3.34177884	7.904083418	6.43E-10	3.27E-08	12.51227682
SLC22A11	-1.302223513	5.949719385	-7.899313342	6.54E-10	3.31E-08	12.49688233
CRIP1	1.060592173	7.063133863	7.890125939	6.74E-10	3.40E-08	12.46722629
PHACTR3	-2.102711565	8.286896368	-7.878449218	7.00E-10	3.50E-08	12.42952459
COL1A1	1.669758911	5.20719506	7.804135819	8.93E-10	4.27E-08	12.18931409
USH1C	-1.012134709	6.308045192	-7.794902714	9.20E-10	4.37E-08	12.15943716
SDC1	-1.121383207	7.246739343	-7.785420503	9.49E-10	4.50E-08	12.12874694
CCL8	1.199881475	4.289536961	7.778717906	9.70E-10	4.56E-08	12.10704886
SLCO4C1	-1.43542561	6.784793238	-7.77860226	9.71E-10	4.56E-08	12.10667445
UCP2	1.098740764	6.748928989	7.775895236	9.79E-10	4.58E-08	12.09791004
MRO	-1.345870553	5.377978489	-7.774525181	9.84E-10	4.59E-08	12.09347405
APOM	-1.19453206	7.659419035	-7.738891072	1.11E-09	5.08E-08	11.97804457
PPP1R15A	-1.088897645	7.485239592	-7.735207266	1.12E-09	5.11E-08	11.96610587
G6PC	-1.083494884	5.676507815	-7.733433963	1.13E-09	5.11E-08	11.96035847
DIO1	-1.8728561	7.409096409	-7.723845013	1.16E-09	5.26E-08	11.9292757
SOX18	1.040100763	4.604309438	7.7228738	1.17E-09	5.27E-08	11.92612709
SLC27A2	-2.005430825	8.628068376	-7.695415975	1.28E-09	5.70E-08	11.83708025
GPAT3	-1.452008761	9.185386459	-7.684999652	1.32E-09	5.86E-08	11.80328445

TMEM200A	1.424688911	8.391396321	7.677494029	1.35E-09	5.95E-08	11.77892727
DPYS	-1.982861937	8.006226232	-7.667139556	1.40E-09	6.09E-08	11.74531798
COL15A1	1.654340967	5.535389027	7.663580904	1.42E-09	6.15E-08	11.73376518
MT1X	-1.276634461	7.641284752	-7.648437381	1.49E-09	6.38E-08	11.68459258
AZGP1	-1.780249469	7.125734274	-7.630168289	1.58E-09	6.69E-08	11.62524807
ALDOB	-1.501549993	11.02704443	-7.582803776	1.85E-09	7.61E-08	11.47127682
SLC4A4	-1.108983678	6.873731992	-7.473306232	2.66E-09	1.03E-07	11.11471629
DDIT4	-1.490551439	9.358367642	-7.46478928	2.73E-09	1.06E-07	11.08694795
RBP5	-1.211455489	7.6926305	-7.451588407	2.85E-09	1.09E-07	11.04389887
SLC13A3	-1.084952817	7.304504783	-7.388488376	3.52E-09	1.30E-07	10.83796902
FBP1	-1.291080711	8.535864341	-7.384263299	3.57E-09	1.31E-07	10.82417128
GADD45G	-1.238640345	6.163200803	-7.349016285	4.01E-09	1.45E-07	10.70902314
DMGDH	-1.445030554	6.867087782	-7.346333744	4.04E-09	1.46E-07	10.70025648
DUSP2	-1.187615713	5.950987015	-7.340102831	4.13E-09	1.47E-07	10.67989192
TMEM27	-1.610545096	8.818426913	-7.328886419	4.28E-09	1.51E-07	10.64322737
PPARGC1A	-1.089989412	7.579419542	-7.293702226	4.81E-09	1.66E-07	10.52816827
ARC	-1.559490509	5.396501845	-7.2848937	4.96E-09	1.70E-07	10.49935151
CTHRC1	1.480077415	5.742540811	7.284469415	4.96E-09	1.70E-07	10.49796337
ANKS1B	-1.431641842	5.78071273	-7.281896739	5.01E-09	1.71E-07	10.48954606
CLRN3	-1.691869752	6.813761159	-7.271996937	5.17E-09	1.75E-07	10.45715231
XPNPEP2	-1.441221445	6.789357817	-7.252739357	5.52E-09	1.85E-07	10.39412271
HCLS1	1.029661555	7.222685733	7.22835979	5.98E-09	1.97E-07	10.31429979
CYR61	-1.191369362	8.98418478	-7.218926089	6.17E-09	2.02E-07	10.28340362
OLFML3	1.117410957	5.940623438	7.193149974	6.72E-09	2.14E-07	10.19896074
ARRDC2	-1.623556222	8.866255651	-7.186544717	6.87E-09	2.17E-07	10.17731628

Gene	logFC	AveExpr	t	P.Value	adj.P.Val	B
SFRP2	1.275802185	4.092898151	7.17962519	7.03E-09	2.21E-07	10.15463961
PLA2G4A	1.110748177	5.517732217	7.140257638	8.02E-09	2.49E-07	10.02557855
ARG1	-1.21184609	3.500183778	-7.133278766	8.21E-09	2.54E-07	10.00269134
FOXQ1	-1.440179066	7.45855268	-7.113753436	8.76E-09	2.68E-07	9.938645643
ENPP6	-1.539213206	5.166447991	-7.109375569	8.88E-09	2.71E-07	9.924283181
HRG	-1.323790659	6.048355311	-7.087276933	9.56E-09	2.87E-07	9.851770673
LOC284454	-1.130181472	7.874252326	-7.079237788	9.82E-09	2.93E-07	9.825386207
SLC22A6	-1.300470613	6.705543672	-7.02202543	1.19E-08	3.45E-07	9.637533479
CYP3A7	-1.300131106	4.956439397	-7.020086734	1.20E-08	3.46E-07	9.631165472
IFI30	1.233127565	8.888232271	7.015361207	1.22E-08	3.51E-07	9.615642959
LUM	2.402815912	6.455873362	7.001840109	1.27E-08	3.64E-07	9.571223535
SOCS3	-1.152588542	5.996224948	-6.996919692	1.29E-08	3.68E-07	9.55505719
TYROBP	1.303691822	7.493023967	6.987369698	1.33E-08	3.78E-07	9.523677331
SLC16A9	-1.545964737	9.17378781	-6.975600337	1.39E-08	3.89E-07	9.485000062
BBOX1	-1.513974753	8.89353809	-6.953725269	1.49E-08	4.15E-07	9.413098694
ITPRIP	-1.033283194	6.874982062	-6.922164838	1.66E-08	4.55E-07	9.309331423
MIOX	-1.831860102	8.702546659	-6.904852789	1.76E-08	4.79E-07	9.252396385
SLC5A12	-1.468597346	7.316242955	-6.887273242	1.86E-08	5.06E-07	9.194571263
SDPR	-1.247914472	7.716605594	-6.844804787	2.15E-08	5.74E-07	9.054837195
HHEX	1.06549527	5.841369735	6.843054637	2.16E-08	5.77E-07	9.049077485
SLC13A1	-1.711056775	6.503843762	-6.832844999	2.24E-08	5.94E-07	9.015475973
GJA4	1.09227461	8.018889244	6.829031995	2.26E-08	6.00E-07	9.002926006
GATM	-1.402970123	10.38180115	-6.81356648	2.38E-08	6.27E-07	8.952019202
DPEP1	-1.162359206	7.727917944	-6.808160577	2.43E-08	6.36E-07	8.934223383
NDC80	1.152494544	5.740002532	6.794487672	2.54E-08	6.62E-07	8.889209702

IL10RA	1.192261538	6.313495037	6.789961225	2.58E-08	6.69E-07	8.874306727
SLC3A1	-1.084291605	10.2403658	-6.780672356	2.66E-08	6.87E-07	8.843722196
GLYAT	-1.497804477	7.364893583	-6.773889571	2.72E-08	7.00E-07	8.821387813
PLG	-1.541067027	7.908221867	-6.772671144	2.73E-08	7.01E-07	8.81737565
PIPOX	-1.701722282	8.750092013	-6.767751142	2.78E-08	7.11E-07	8.801174186
ACE2	-1.647323157	6.664097986	-6.745843095	2.99E-08	7.53E-07	8.729024394
GBA3	-1.51020569	7.23423336	-6.740111406	3.05E-08	7.66E-07	8.710146382
FAM150B	-1.326236507	4.957124949	-6.726988381	3.19E-08	7.97E-07	8.666921357
MGAM	-1.363456597	7.228803284	-6.711049878	3.36E-08	8.36E-07	8.614417669
PMAIP1	-1.171923069	4.466771891	-6.699716567	3.49E-08	8.63E-07	8.57708098
IMPA2	-1.030387011	8.383224621	-6.677305877	3.76E-08	9.19E-07	8.503243491
FREM2	-1.52640637	5.287664589	-6.649935898	4.12E-08	9.92E-07	8.413054352
C10orf10	-1.170104399	7.842159265	-6.633449471	4.36E-08	1.04E-06	8.358722717
UCHL1	1.285618289	8.145484583	6.614008875	4.65E-08	1.10E-06	8.29465045
LOC100506498	-1.766176375	4.226073028	-6.613217836	4.66E-08	1.10E-06	8.292043237
MOXD1	1.136982461	5.320943227	6.583372321	5.15E-08	1.20E-06	8.193668753
TINAG	-1.213135663	7.034005399	-6.582111263	5.17E-08	1.20E-06	8.189511927
SLC47A2	-1.300170529	6.745913669	-6.571781949	5.36E-08	1.24E-06	8.155462773
MYC	-1.549764202	7.037371765	-6.463132124	7.71E-08	1.69E-06	7.797266643
SMIM3	-1.012747196	7.183510054	-6.460799016	7.77E-08	1.70E-06	7.789574339
MRLN	-1.410993442	4.479426956	-6.451979449	8.00E-08	1.74E-06	7.760496011
SMIM24	-1.369242912	9.105685358	-6.451842482	8.01E-08	1.74E-06	7.760044425
SLC22A8	-1.363177592	7.799818382	-6.448875873	8.09E-08	1.75E-06	7.750263435
SLC47A1	-1.39192612	8.031048271	-6.424908771	8.76E-08	1.86E-06	7.671243416
FAM151A	-1.448639838	6.742167319	-6.415735681	9.04E-08	1.90E-06	7.640999786

AGXT2	-1.416894681	8.836575823	-6.366329973	1.07E-07	2.19E-06	7.478114934
PSAT1	-1.127931171	6.361742277	-6.361866653	1.08E-07	2.22E-06	7.463400558
BNC1	-1.340187825	3.677295998	-6.348856184	1.13E-07	2.31E-06	7.420509364
GLYATL1	-1.36036073	7.458746452	-6.334998434	1.18E-07	2.41E-06	7.374826526
AGMAT	-1.387904622	8.992768786	-6.320107266	1.25E-07	2.51E-06	7.325739011
PLA2G7	1.159915684	3.99250967	6.317317439	1.26E-07	2.53E-06	7.316542834
CDKN1A	-1.247999327	9.320896296	-6.314735543	1.27E-07	2.54E-06	7.308032141
CYBB	1.256469217	6.077320486	6.304020509	1.31E-07	2.61E-06	7.272713043
AGT	-1.220086168	6.349638743	-6.239614271	1.63E-07	3.15E-06	7.060449345
DAO	-1.151868088	6.459187734	-6.239115412	1.63E-07	3.16E-06	7.058805517
C1QA	1.131325283	5.188880683	6.220718194	1.74E-07	3.34E-06	6.998186577
LOC284825	-1.024303585	5.692881569	-6.219552389	1.74E-07	3.35E-06	6.994345461
VSIG4	1.303102805	5.086588774	6.20109164	1.86E-07	3.53E-06	6.93352431
HTR2B	1.736914948	6.316976227	6.179620221	1.99E-07	3.75E-06	6.862793371
METTL7B	-1.076562514	5.551929487	-6.149871389	2.20E-07	4.08E-06	6.764813081
TAC1	1.660781537	3.787374601	6.131461129	2.34E-07	4.33E-06	6.704188776
CUBN	-1.430301406	8.004837711	-6.0561206	3.02E-07	5.39E-06	6.456200069
MPEG1	1.250993725	6.993841556	6.045703431	3.12E-07	5.54E-06	6.421925963
PAH	-1.50632597	9.748157931	-6.024820697	3.35E-07	5.85E-06	6.353230438
C15orf48	1.63811012	4.187241255	5.974342985	3.97E-07	6.72E-06	6.187250228
KCNJ15	-1.074105528	7.60897141	-5.972770304	3.99E-07	6.75E-06	6.182080658
RGS1	-1.04163578	3.75066498	-5.938714377	4.47E-07	7.42E-06	6.070162173
FMO1	-1.506666367	8.616000167	-5.912448392	4.88E-07	7.96E-06	5.98388076
MYRIP	-1.028323863	6.344284514	-5.900301346	5.09E-07	8.26E-06	5.943990239
POSTN	1.182338645	10.62825308	5.861683558	5.79E-07	9.21E-06	5.817221289

AKR1C1	-1.161820697	6.760245511	-5.854761174	5.92E-07	9.32E-06	5.79450594
MS4A7	1.070955231	5.493960444	5.812475567	6.82E-07	1.05E-05	5.655807586
NAT8	-1.388005829	8.919251105	-5.787240276	7.42E-07	1.12E-05	5.573085542
SUGCT	-1.001687064	6.133769032	-5.785655384	7.46E-07	1.13E-05	5.567891533
COL6A3	1.476427191	6.074606577	5.768552585	7.90E-07	1.18E-05	5.511852395
SOX9	-1.065296122	5.842601393	-5.721099945	9.26E-07	1.35E-05	5.356469764
CXCR2	-1.400069143	6.590879963	-5.720431753	9.28E-07	1.35E-05	5.35428288
HSPA1B	-1.331954758	10.25424727	-5.704313248	9.79E-07	1.42E-05	5.301539256
BHMT	-1.249416198	9.898127794	-5.696166314	1.01E-06	1.45E-05	5.274887609
IYD	-1.03597658	4.576311457	-5.676424544	1.07E-06	1.53E-05	5.210325128
EGR3	-2.112774569	7.306039812	-5.638519639	1.22E-06	1.71E-05	5.086445655
HBEGF	-1.189117761	8.43081454	-5.636645558	1.23E-06	1.72E-05	5.080323756
APOH	-1.25007519	5.715959556	-5.606909496	1.36E-06	1.86E-05	4.983225506
HAO2	-1.339157789	6.784597869	-5.571832424	1.52E-06	2.06E-05	4.868781763
APLNR	1.175206228	9.461301458	5.569651291	1.53E-06	2.07E-05	4.861669012
MT1M	-1.550108784	7.521496596	-5.526935852	1.77E-06	2.35E-05	4.722457852
SLC25A18	-1.350176933	5.689294492	-5.479998518	2.07E-06	2.67E-05	4.569682548
CX3CR1	1.36012187	7.37998102	5.476902576	2.09E-06	2.69E-05	4.559613108
CD36	1.053081585	4.659179208	5.458913974	2.22E-06	2.81E-05	4.501124653
TOX3	-1.061174298	4.840912259	-5.449423907	2.29E-06	2.89E-05	4.470281588
C1QB	1.342155839	5.153302103	5.411673697	2.60E-06	3.21E-05	4.34768407
SERPINA1	-1.222663852	7.717605383	-5.404849599	2.66E-06	3.26E-05	4.325538179
AREG	-1.864234092	5.904274577	-5.397032893	2.72E-06	3.33E-05	4.300177194
C2CD4A	-1.115751047	3.655600409	-5.377327376	2.91E-06	3.52E-05	4.236273027
FGB	-1.352671819	4.515614904	-5.364195553	3.04E-06	3.64E-05	4.193710973

SERPINE1	-1.374268857	7.490851687	-5.351382178	3.17E-06	3.77E-05	4.152199793
CLDN2	-1.126919149	7.17423296	-5.347425244	3.21E-06	3.81E-05	4.139384398
THBS2	1.078850251	5.971469145	5.304621455	3.70E-06	4.29E-05	4.000871642
OMD	1.088813148	4.143289776	5.264429929	4.23E-06	4.81E-05	3.871012938
CTXN3	-1.55874656	6.389430354	-5.258980698	4.30E-06	4.89E-05	3.853421938
LYZ	1.256096188	8.738803673	5.246261279	4.49E-06	5.08E-05	3.812376254
HSPA6	-1.177455116	5.957398228	-5.155085045	6.07E-06	6.50E-05	3.518773601
SLC23A3	-1.311203732	7.185616129	-5.119824457	6.81E-06	7.17E-05	3.405536339
AOC1	-1.264245054	8.202132516	-5.103385676	7.19E-06	7.51E-05	3.352805628
CALB1	-1.934861355	7.667483188	-5.081540273	7.73E-06	7.98E-05	3.28279399
MT1G	-1.302137213	10.55713844	-5.060423012	8.28E-06	8.44E-05	3.21518437
RNF212B	-1.243982199	6.589784577	-5.016138646	9.58E-06	9.56E-05	3.073626705
SLC10A2	-1.498081268	5.729867958	-4.992375037	1.04E-05	0.00010184	2.997793636
CRISPLD2	-1.211871675	7.642179345	-4.978901414	1.08E-05	0.000105483	2.954838317
ERAP2	-1.397203265	6.578253216	-4.966721565	1.13E-05	0.000108925	2.916033551
IL1B	1.13139983	6.457648052	4.941720474	1.22E-05	0.000116365	2.83645867
SUCNR1	1.112614863	6.809913096	4.93345656	1.26E-05	0.000119147	2.810179228
TMED6	-1.604936893	5.697356	-4.898565205	1.41E-05	0.000130933	2.699354652
UBD	1.228426707	7.255398608	4.890542441	1.44E-05	0.000133779	2.673902476
CYP4F2	-1.459484122	6.633060117	-4.82957623	1.76E-05	0.00015782	2.480869122
COL21A1	1.108103335	5.505118273	4.695599159	2.72E-05	0.000227798	2.059172004
S100A12	-1.495177088	5.456803587	-4.657523527	3.08E-05	0.000252335	1.939996179
LOC100505985	-1.32719119	6.582055467	-4.613434153	3.54E-05	0.000284313	1.802388048
FOSL1	-1.360205458	3.748695138	-4.603240108	3.66E-05	0.00029212	1.770632285
TMEM213	-1.255555623	5.984419556	-4.584213934	3.89E-05	0.000307173	1.711425752

Gene						
IGSF6	1.046346569	5.78955266	4.51430616	4.87E-05	0.000366523	1.494598987
FCAMR	-1.014512796	5.723241289	-4.481199777	5.41E-05	0.000399017	1.392319979
ERP27	-1.100703966	8.042162563	-4.406311334	6.87E-05	0.000486219	1.161958497
LOC101927451	1.012903236	5.018310999	4.390231616	7.23E-05	0.000506756	1.112682237
CHODL	1.413059342	6.392561808	4.34010508	8.47E-05	0.000576763	0.959505092
FCGR3B	-1.058496531	7.722305316	-4.276335373	0.000103607	0.000680194	0.765618057
CXCL11	1.164081441	4.478914312	4.219357639	0.000123897	0.000788695	0.593345964
S100A8	-1.288344245	8.495074548	-4.144931222	0.000156314	0.000957914	0.369746828
RBP4	-1.04592867	6.207877112	-4.053444257	0.0002076	0.001217304	0.097215373
S100A2	-1.21738441	7.563901155	-4.012481897	0.000235553	0.001356183	-0.023942315
IDO1	1.143679623	6.562489087	4.01067743	0.000236865	0.001361103	-0.029266893
IGHM	1.193706521	4.876696664	3.981433054	0.000259141	0.001465937	-0.115409643
HBB	1.072981734	10.82211473	3.955382067	0.000280687	0.001567044	-0.191903936
COLEC12	1.218362878	5.041878046	3.941545762	0.000292827	0.001622861	-0.232437953
CCL4	1.508216088	7.59749237	3.87753265	0.000355932	0.001907663	-0.419101795
AKR1B10	-1.057594341	4.569231211	-3.782617773	0.000474297	0.00241525	-0.693170952
APOD	-1.245667911	10.06749415	-3.732241229	0.000551732	0.002736714	-0.837270768

CXCL10	1.149027664	7.159456875	3.639428552	0.000727423	0.00343768	-1.100173581
IGFBP1	-1.260902258	6.280725548	-3.347018234	0.001703721	0.006968385	-1.904854721
CLDN8	-1.093035536	5.916999417	-3.344478602	0.001716119	0.007006004	-1.911676248
HLA-DQA1	2.166606518	8.142000617	3.148605707	0.002978418	0.01101366	-2.428428857
IGKC	1.355694662	7.601493376	2.876372991	0.006233546	0.020226173	-3.113699871
JCHAIN	1.112509598	3.766868739	2.797473196	0.007671488	0.023937861	-3.304581838
SELE	1.107713848	5.533038687	2.6313572	0.011755876	0.033787638	-3.69431968

Table S7 All DEGs identified in the GSE37460 dataset

Gene symbol	logFC	AveExpr	t	P.Value	adj.P.Val	B
CDH5	1.552352723	9.059642029	8.810023997	1.28E-10	2.56E-07	14.08536641
COL4A3BP	1.020623238	6.733354508	4.415497914	8.43E-05	0.000905193	1.348334484
TSPAN2	1.062650568	7.912157564	3.53015035	0.001130546	0.005674113	-1.09118365
CDH13	1.061065704	8.888634233	3.555389011	0.001052768	0.005399725	-1.024831614
LPAR6	1.08200333	10.32449637	7.456817564	7.02E-09	4.87E-06	10.29696148
RCAN2	1.17225988	10.34341681	6.225380591	3.11E-07	4.12E-05	6.685454266
KLF2	1.121279954	10.42502054	4.294100407	0.000121529	0.001157328	1.002437591
CD52	1.071371199	7.403202471	2.836466299	0.00735492	0.022814367	-2.813361904
POSTN	1.432416223	10.93084866	4.589268447	4.98E-05	0.000658987	1.848113092
PLK2	1.023211197	8.194383171	4.25826379	0.000135317	0.001240184	0.90089336
FGL2	1.49291306	10.10141766	6.525146346	1.22E-07	2.66E-05	7.574177557
IFI44L	1.185281233	8.200998172	2.478913071	0.017859468	0.045498183	-3.608715486
TMSB15A	1.037597981	9.553104865	2.969439913	0.00521063	0.017645625	-2.50009108
RAPGEF4	1.544759441	7.34864945	7.844863322	2.18E-09	1.74E-06	11.40633857
VSIG4	1.034838309	7.89182041	2.301011312	0.02712305	0.06364897	-3.976321441
COL1A2	1.199459246	8.746935938	2.64393376	0.01194836	0.033259097	-3.250572794
COL4A1	1.289359053	10.92710325	7.376882224	8.95E-09	5.10E-06	10.06640428
COL6A3	1.363632558	7.669465257	2.656095181	0.01159357	0.03249079	-3.223557143
COL15A1	1.037987751	7.07553577	2.710580614	0.010120368	0.029239063	-3.101508441
CFD	1.007326037	7.353987358	3.312214849	0.002074655	0.008787165	-1.654302241
AGTR1	1.215635085	9.222869303	4.969823501	1.55E-05	0.000321255	2.957940947
ECM1	1.336145285	10.16254169	3.228222656	0.002610386	0.01044591	-1.866314435
S1PR1	1.104918864	9.15197811	5.090173505	1.07E-05	0.000263868	3.31228503

EDNRB	1.376504005	7.274342848	3.652980142	0.000797751	0.004444294	-0.766191609
MECOM	1.759858032	7.114919723	5.429020419	3.72E-06	0.000153085	4.315669392
F8	1.144741315	10.05976967	6.089736842	4.74E-07	5.25E-05	6.282161391
FCN1	1.104586425	8.453004814	2.460404437	0.01866726	0.047035831	-3.647877072
CD93	1.122248645	9.093177333	6.268497288	2.72E-07	3.90E-05	6.813523319
FOXO3	1.326214884	8.409683091	4.158381804	0.000182347	0.001524147	0.619336265
FN1	1.033271616	8.3177039	3.03002465	0.004442537	0.015596473	-2.35447881
HMHA1	1.066278985	8.666052782	6.205326219	3.31E-07	4.21E-05	6.625864584
LY96	1.410177724	7.30839176	5.354959415	4.69E-06	0.000164776	4.095798269
SOSTDC1	1.24285443	8.106526654	3.885228906	0.000407962	0.00271883	-0.138380005
RWDD3	1.073472291	6.537609738	5.855180533	9.85E-07	8.09E-05	5.583876506
GATA3	1.183854271	7.985318754	6.339586904	2.18E-07	3.43E-05	7.024522533
GBP2	1.076319588	8.946956518	6.0285292	5.74E-07	5.92E-05	6.100024625
TSPAN13	1.020814865	9.578781184	4.776042272	2.81E-05	0.000462273	2.390516051
SLCO3A1	1.21246117	7.662693203	6.352062536	2.09E-07	3.43E-05	7.061529247
CNIH4	1.209720009	8.572925424	6.259757829	2.79E-07	3.90E-05	6.787570123
PYCARD	1.131257831	7.742670582	4.089804355	0.00022354	0.001766039	0.427340924
HBA2	3.553117694	12.06980329	7.26119091	1.27E-08	6.86E-06	9.731571437
HBB	3.17214727	11.19713547	6.302372027	2.44E-07	3.66E-05	6.91409172
HCLS1	1.10492492	9.593180539	5.01558973	1.34E-05	0.000295838	3.092533412
HLA-DQB1	1.044983721	9.841434014	3.697697434	0.000701899	0.004059676	-0.646616806
HLX	1.216152414	8.487456138	6.644162486	8.47E-08	2.26E-05	7.925726458
HOXA7	1.011337841	6.793314745	4.15539635	0.000183975	0.001532398	0.610954982
HTR2B	1.413193686	6.786578583	3.514053201	0.001183007	0.005864216	-1.133384312
ID1	1.178851585	10.65116876	5.773819396	1.27E-06	9.16E-05	5.341562359

IL10RA	1.029289426	7.756381653	3.117645803	0.00351838	0.013080176	-2.140840391
IL13RA2	1.022863349	11.34125394	3.009513387	0.004689768	0.016292277	-2.403972856
ITGB2	1.156373782	7.870179471	3.369502851	0.00177131	0.007864378	-1.508047531
KDR	1.208370562	10.53174522	4.746482164	3.08E-05	0.000489332	2.304351349
TNPO1	1.147787312	9.428765149	4.2679133	0.00013146	0.00121797	0.928209142
LTF	1.217728327	8.199522725	2.717111202	0.009955931	0.02887558	-3.086769736
MATN2	1.14133209	9.449793107	6.536962036	1.18E-07	2.66E-05	7.609116209
NCF2	1.012119366	8.040017315	2.82995361	0.007478675	0.023101986	-2.828474553
GIMAP6	1.103406278	10.25465408	4.863461389	2.15E-05	0.000398247	2.645968076
NNMT	1.185642328	7.51666121	2.365264397	0.023368363	0.056216611	-3.84584928
NPY1R	1.062283698	9.917020684	5.325609771	5.13E-06	0.000173942	4.008738385
GOLT1B	1.026835172	7.358042296	5.747112143	1.38E-06	9.67E-05	5.262025704
GLTP	1.193240016	6.672622226	5.82730132	1.07E-06	8.63E-05	5.500844803
PCDH12	1.10757492	9.061615107	5.899383597	8.58E-07	7.57E-05	5.715519361
MS4A4A	1.010793419	5.924519999	2.048418337	0.047660624	0.098287711	-4.462664045
PCYOX1	1.007966289	7.435814943	3.188404015	0.002908132	0.01134513	-1.965785704
PDGFRA	1.336710925	9.008859602	5.577109591	2.35E-06	0.000124753	4.755946219
KLF13	1.082898283	6.554022677	5.244922536	6.60E-06	0.00020169	3.769641232
PECAM1	1.305287209	9.909293336	6.386124359	1.88E-07	3.27E-05	7.16253194
FXYD6	1.102153139	10.3111038	5.988024304	6.51E-07	6.54E-05	5.979453884
EXOSC10	1.129299347	7.652999597	4.97752067	1.51E-05	0.000316455	2.980563158
SOX18	1.161483643	6.138122087	5.603361664	2.16E-06	0.000120775	4.834061912
MPHOSPH8	1.067566128	8.165042264	4.968947125	1.55E-05	0.000321497	2.955365622
XAF1	1.071221999	7.523052639	3.281204422	0.002258933	0.009362125	-1.73291868
DPP8	1.02366165	10.10240276	4.219461066	0.000151977	0.001346513	0.79125156

Gene						
RCBTB1	1.042635781	8.41338151	6.4271105	1.66E-07	3.10E-05	7.283994902
GIMAP4	1.177784109	10.55796008	5.859240054	9.73E-07	8.09E-05	5.59596669
C8orf4	1.834724813	9.574594235	11.4143524	1.10E-13	1.32E-09	20.65337353
KIAA1462	1.178024458	7.73631875	4.826093168	2.41E-05	0.000421629	2.536660093
PTPRB	1.046827211	8.805374698	3.739549845	0.000622339	0.00371806	-0.534120946
RALA	1.389771048	6.887841259	5.416756272	3.87E-06	0.000153085	4.279242934
ACTA2	1.355590822	10.88535578	5.575530423	2.36E-06	0.000124753	4.751247774
SOX17	1.398297591	6.712229846	7.914777671	1.77E-09	1.60E-06	11.60437779
ST3GAL1	1.091891502	7.757937959	3.547841563	0.00107547	0.005493429	-1.044697348
SLC14A1	1.359511839	8.444283768	4.51287923	6.28E-05	0.0007568	1.627781573
SLCO2A1	1.159555924	10.78506775	4.356017452	0.000100881	0.001025177	1.178498679
SNAI2	1.274023789	9.589178625	6.341562816	2.16E-07	3.43E-05	7.030384173
TCF4	1.188092524	6.814730015	3.983309117	0.000306105	0.002221881	0.131473426
TGFBI	1.033497645	9.09778333	2.737175664	0.009466085	0.027839646	-3.041341213
C1QA	1.647305039	7.662639505	3.539302117	0.001101725	0.005581418	-1.067149883
C1QB	1.596988869	7.381863251	3.038352017	0.004345714	0.015324023	-2.334328033
PHLDA2	1.228365682	6.270189758	3.574609348	0.000997018	0.005178336	-0.974151363
TYROBP	1.433864429	8.618173788	3.685843875	0.000726163	0.004151836	-0.678376712
ZNF148	1.070636681	7.108647884	4.424849358	8.20E-05	0.000893598	1.375096117
NETO2	1.498491956	7.860988326	5.710944636	1.54E-06	0.000100784	5.154324284
DYSF	1.113336759	10.56016054	5.64792564	1.88E-06	0.000110219	4.966700294
SRPX	1.042160747	7.127189499	4.254518478	0.000136844	0.00124575	0.890296453
MAGT1	1.496877812	8.069826051	5.174608604	8.21E-06	0.000230152	3.561615344
FCN3	1.074019698	11.58531639	3.413354274	0.001568274	0.007172647	-1.395223522
PPAP2B	1.214924222	11.12246007	4.384658438	9.25E-05	0.000959938	1.260194177

HYAL2	1.056538791	9.910179762	6.769473645	5.75E-08	1.86E-05	8.294886184
ARHGEF6	1.035591141	9.036024604	7.249321426	1.32E-08	6.86E-06	9.697144485
GMFG	1.331397679	8.959294476	6.747181547	6.16E-08	1.92E-05	8.229293901
CD53	1.04995358	9.722248685	3.110757108	0.003583875	0.013242734	-2.157763775
ISG15	1.049645795	9.546434613	2.845554053	0.007185426	0.022387311	-2.792237151
CD97	1.096187154	8.315328995	6.030260957	5.71E-07	5.92E-05	6.105178898
TRIB1	-1.491711965	8.255223581	-5.384652304	4.27E-06	0.000158683	4.183919928
HRSP12	-1.104862449	9.215028863	-3.388911412	0.001678523	0.007556195	-1.458203789
GLYAT	-1.372095951	9.168020276	-3.422277717	0.001529781	0.007059301	-1.37217396
SLC17A3	-1.064539879	9.536682249	-2.328758855	0.02543964	0.060400027	-3.920302144
ALDH1L1	-1.031375018	8.717257269	-2.608513058	0.013039548	0.035584311	-3.328779683
FTCD	-1.351917778	8.288068539	-3.969987465	0.000318325	0.002287015	0.094668156
SLC27A2	-1.355433435	9.30019277	-2.975554575	0.005127782	0.017454012	-2.485474796
SLC7A9	-1.37404893	9.919865547	-2.860114523	0.006921449	0.021797643	-2.758302238
SUPT16H	-1.12233501	9.999968259	-7.778170966	2.67E-09	1.99E-06	11.21688733
CISH	-1.016934871	8.5939087	-5.513064172	2.86E-06	0.000139459	4.565448333
SIK1	-2.346134951	7.561520538	-8.943928498	8.74E-11	2.48E-07	14.44718161
CYP27B1	-2.309864818	8.056781774	-8.032017259	1.25E-09	1.25E-06	11.93514606
AFM	-1.105737784	6.898236458	-3.270612309	0.002325376	0.009561299	-1.759680854
DPYS	-1.192578066	8.82375325	-2.554046543	0.014897443	0.039465851	-3.447631286
AGT	-1.097415972	7.843369716	-2.8979699	0.006276954	0.020258741	-2.669569711
EGR1	-1.465114905	8.705837432	-5.150753197	8.84E-06	0.000239678	3.491116908
EGR2	-1.245315226	6.700681561	-2.589464361	0.013663611	0.036916751	-3.370541364
EGR3	-1.402932959	6.53626771	-3.354874043	0.001844467	0.008090089	-1.545518622
ALB	-2.551299538	7.276346735	-4.645893499	4.19E-05	0.0005953	2.012028858

FABP1	-1.0984944	7.324101442	-2.513326168	0.01644174	0.042557813	-3.535352454
FBP1	-1.211960032	10.24513365	-3.339755759	0.001923103	0.00834624	-1.584154489
SYNE2	-1.081983129	8.833932077	-5.488278323	3.09E-06	0.000142481	4.491758238
FOS	-1.188835732	8.688825221	-2.37558681	0.022810967	0.05505286	-3.824643246
FOSB	-3.341766962	7.494501371	-9.816772788	7.55E-12	4.51E-08	16.74271588
G6PC	-1.114683087	5.658903924	-3.14175755	0.003297948	0.012475257	-2.081437472
GHR	-1.007894323	10.63338424	-5.447315976	3.51E-06	0.000150626	4.37002154
GK	-1.079402694	7.966286375	-4.044691517	0.000255455	0.001954891	0.301657966
GSTA1	-1.635867298	10.26326078	-3.038754085	0.00434109	0.015312232	-2.333354275
NR4A1	-1.325952802	8.385455378	-8.528508345	2.90E-10	4.16E-07	13.31661685
HPD	-1.490040135	9.03146323	-2.621076732	0.012642416	0.03476624	-3.30112157
APOD	-1.269297949	10.66012299	-2.484919789	0.017604241	0.044963555	-3.595961505
IGF1	-1.089669577	8.160322507	-3.281234488	0.002258747	0.009362125	-1.732842649
IGFBP1	-1.161332861	6.348828466	-2.241788239	0.031054677	0.070657217	-4.094209001
APOH	-1.599830799	6.798838274	-5.725415397	1.48E-06	0.000100533	5.197414583
KNG1	-1.183726365	8.836744633	-2.241938605	0.031044081	0.070653357	-4.09391261
ALDH6A1	-1.173824973	9.341034872	-3.166797014	0.003082925	0.011879788	-2.019475307
MT1G	-1.186524426	12.08204496	-3.756090344	0.000593366	0.003584469	-0.489509814
ATF3	-2.260742787	8.786199622	-7.431210997	7.59E-09	4.87E-06	10.22317653
NFIL3	-1.161818473	8.549887512	-6.157176689	3.84E-07	4.64E-05	6.4827395
NR4A2	-1.56229012	5.571102474	-8.065203067	1.13E-09	1.23E-06	12.02846686
PAH	-1.002858968	10.80372515	-2.238721536	0.031271487	0.071082908	-4.100250572
SERPINA5	-1.071301782	8.944461082	-2.140890698	0.038935496	0.083941506	-4.289667908
PCK1	-1.383859169	10.6604668	-2.915822855	0.005992912	0.019579683	-2.62747177
HAO2	-1.443899382	9.109771323	-2.950445715	0.005476082	0.01832664	-2.545378125

UPB1	-1.264628559	7.485189413	-3.23385978	0.002570653	0.010322489	-1.852177539
SERPINA1	-1.291844107	9.832523765	-3.846577693	0.00045657	0.002961515	-0.243987047
PLG	-1.168485396	9.02760318	-2.064928683	0.045987352	0.095628428	-4.432216319
RIPK4	-1.155817957	7.921586565	-5.04338837	1.23E-05	0.000282553	3.174381242
CYCS	-1.036362474	10.1510195	-4.740307728	3.14E-05	0.000495138	2.286367854
SLC22A11	-1.034313121	7.958077693	-3.05829424	0.004121875	0.014677506	-2.285939327
APOM	-1.250406681	9.114313449	-2.971080856	0.005188274	0.017594825	-2.496170404
AZGP1	-1.169649123	7.373095082	-2.243925824	0.030904349	0.070390013	-4.089994152
DNAJC12	-1.099802587	7.980267414	-3.673739806	0.000751777	0.004264847	-0.710760923
PSG5	-1.191161147	7.066126584	-6.052130577	5.33E-07	5.69E-05	6.17026503
GBA3	-1.135654087	8.025412761	-3.186751565	0.00292116	0.011377401	-1.969898936
PRODH2	-1.224670465	10.29153703	-3.486902274	0.001276837	0.006215812	-1.204351787
ACE2	-1.073387102	7.413174936	-2.54433142	0.015253307	0.04017723	-3.468648913
RBP4	-1.503149019	7.671206292	-2.833610568	0.007408948	0.022934374	-2.819991315
PBLD	-1.178126374	9.421179714	-3.625864702	0.000861903	0.004671092	-0.83837821
SLC13A3	-1.065365184	9.150678132	-2.719560931	0.009894889	0.028754318	-3.081234991
SLC2A2	-1.449625298	6.560089784	-4.299643963	0.000119523	0.001141861	1.018169209
SLC10A2	-1.02141606	7.201454832	-3.227197217	0.002617676	0.010470535	-1.868884601
SLC17A1	-1.057718477	7.597580598	-2.686835298	0.010739701	0.030628891	-3.154900987
TFRC	-1.071044067	9.060853464	-5.378738469	4.35E-06	0.000160139	4.166365676
KLF10	-1.007394187	10.47383143	-6.017555621	5.94E-07	6.02E-05	6.067362396
UMOD	-1.932676382	10.79751351	-2.54548426	0.015210675	0.04009932	-3.466157769
XPNPEP2	-1.264430507	7.821286788	-2.81719434	0.007726778	0.023720616	-2.858018445
CRISPLD2	-1.203473314	8.255596506	-3.686392519	0.000725023	0.004147296	-0.676907701
ARID5B	-1.728444452	9.754701516	-6.948540478	3.31E-08	1.28E-05	8.820425695

CMAH	-1.03573809	8.377270186	-3.947854094	0.000339686	0.002388587	0.033622234
SERPINA6	-1.228765466	7.312265038	-3.454809072	0.001396974	0.006638543	-1.287888885
ZNF160	-1.02924176	5.915684518	-4.245382896	0.000140639	0.001269563	0.864460954
SLC22A6	-1.104164009	7.950999497	-2.518905567	0.016221823	0.042189437	-3.523391259
SLC22A8	-1.770381656	8.008869277	-4.319463222	0.000112612	0.00109547	1.074463881
ACY1	-1.091683834	10.50124246	-2.815506009	0.007760177	0.023793765	-2.861921389
GDF15	-1.406852915	7.053575515	-3.987570505	0.000302293	0.002208751	0.143256738
CXCL14	-1.134964481	10.5747387	-2.439885267	0.019601572	0.048834493	-3.691048451

Table S8 All DEGs identified in the GSE104948 dataset

Gene symbol	logFC	AveExpr	t	P.Value	adj.P.Val	B
ARPC1B	1.360885162	10.36448289	4.885782955	3.04E-05	1.18E-02	2.421870674
LPAR6	1.450233058	10.442624	6.371822266	4.46E-07	0.000672562	6.253895084
CD52	1.887398653	7.439724943	3.22686704	0.002970322	0.102761217	-1.731900062
IFI30	2.149995268	11.2166439	4.82860117	3.58E-05	0.012010107	2.273374987
IFI44	1.472088714	9.380521976	3.372721136	2.03E-03	8.38E-02	-1.389266322
POSTN	1.421473838	11.14037014	2.661508353	1.23E-02	2.04E-01	-2.98632081
HCP5	1.131826817	9.19820908	3.666903433	0.000921908	0.058896643	-0.679628048
FGL2	1.320446064	10.29808521	5.138447993	1.48E-05	0.006615243	3.078767183
IFI44L	1.540730494	8.328950322	2.077402699	4.62E-02	0.352280749	-4.122030393
GLIPR1	1.176642928	7.234930791	2.851764664	0.007705281	0.165855275	-2.578804045
TMSB15A	1.838050816	9.547429812	3.726683169	7.84E-04	5.38E-02	-0.532782777
ADAMTS5	1.300642256	7.088110997	2.975984254	0.005648774	0.144775357	-2.304312962
PRSS23	1.356152562	10.18305852	2.629818072	0.013226327	0.208820308	-3.052577457
CORO1A	1.226272969	7.320316783	3.304563472	2.42E-03	9.15E-02	-1.550211558
CD300A	1.184994049	7.0133043	2.950012942	0.006030321	0.148895893	-2.362220859
COL1A2	2.256204517	8.841113599	2.929958974	0.006341462	0.153440504	-2.406750458
COL3A1	1.834150781	10.32634563	4.334073686	1.45E-04	2.29E-02	0.996635101
COL4A2	1.002280572	9.97635417	3.227181588	0.002967893	0.102761217	-1.731168473
COL6A3	2.050548378	7.810978951	2.304269178	0.028137242	0.288613415	-3.703583093
CSF1R	1.396328336	8.417158236	3.10678447	0.004050392	0.121225366	-2.008723046
CSF2RB	1.261373678	8.584319632	2.40914132	2.22E-02	0.261881445	-3.500027357
CSTA	2.084641381	6.767904999	4.167987355	0.000231687	0.030406402	0.572822805

CTSS	1.707389595	7.655448702	3.598433664	1.11E-03	0.063586715	-0.846794681
CX3CR1	3.132192485	8.709849726	6.596553462	2.38E-07	0.000603163	6.819161798
CYBB	1.532654741	6.933826678	2.868036802	7.40E-03	0.163651966	-2.543210128
CFD	1.033154007	7.415769529	2.078486298	4.61E-02	3.52E-01	-4.120106558
DOCK2	1.541909379	6.742175219	3.759388986	0.000716847	0.051807147	-0.452106793
APLNR	1.595903984	10.66681863	4.536156125	8.22E-05	1.74E-02	1.516240308
APOBEC3A	1.399958156	6.904207151	2.3333476	0.026354596	0.280117022	-3.647758053
EMP1	1.106515789	8.332418621	2.663674801	0.012195332	0.203903015	-2.981773776
MECOM	1.201573004	7.769111426	3.091560116	4.21E-03	1.24E-01	-2.043456197
EVI2A	1.441098425	7.156738716	2.332758247	2.64E-02	0.280117022	-3.648894249
EVI2B	1.651512898	7.102283286	2.812789417	0.008483858	0.172946727	-2.663599023
FCER1G	2.331024157	9.01540843	5.381054736	7.40E-06	4.24E-03	3.709362976
FCGR3B	1.850548765	8.746890056	2.975224984	5.66E-03	1.45E-01	-2.306009685
FCN1	2.923510264	8.404253082	5.298565269	9.36E-06	4.52E-03	3.495069259
FGR	1.203818957	8.438312939	3.374520615	2.02E-03	0.083685347	-1.384998028
FHL2	1.163647267	9.526287218	2.969098457	5.75E-03	1.46E-01	-2.319692182
FN1	1.400642184	8.446943454	2.357312505	2.50E-02	2.75E-01	-3.601391808
FPR1	1.017560275	7.386854892	2.193630163	0.035957976	0.320477043	-3.911519267
LY96	1.650033919	7.572700938	4.389714539	1.24E-04	2.14E-02	1.139319418
TNFAIP8	1.4284181	8.149750757	3.757345964	7.21E-04	5.18E-02	-0.457153115
SOSTDC1	1.185075141	8.317564616	2.423294591	2.15E-02	0.258710789	-3.472092081
GATA3	1.108513314	8.216325527	3.313242531	0.002370163	0.090417879	-1.529796515
GBP1	1.535847541	8.187850064	3.571368686	1.19E-03	6.54E-02	-0.912556817
GBP2	1.615897665	8.402800421	5.69733536	3.00E-06	0.00242709	4.528720381
GEM	1.428033586	8.127939039	4.298260127	0.000160822	0.02398204	0.904970083

TSPAN13	1.073986319	9.56130702	2.786070883	9.06E-03	1.79E-01	-2.721346942
DKK3	1.166336079	8.663287927	2.285473841	0.029346775	0.293079375	-3.739410113
PYCARD	1.797360553	7.828540098	4.206120996	0.000208248	0.028900934	0.669827769
GZMA	1.184185591	6.774406243	2.619777367	0.013547286	0.209974234	-3.073469228
ANXA1	1.005895067	11.53435709	3.502319732	1.44E-03	0.070172473	-1.079480367
HBB	3.296744388	11.46394193	4.176401448	0.000226302	0.030196825	0.594210054
HCK	2.6398409	7.813158766	5.349869248	8.09E-06	0.004236103	3.628368393
HCLS1	1.736850227	9.718789727	6.039781163	1.14E-06	1.25E-03	5.409323565
AOAH	1.116127075	6.591542201	2.789684088	0.008979647	0.178911318	-2.713555922
HLX	1.733114796	8.551807483	6.143738583	8.47E-07	0.001057373	5.674847263
HMOX1	1.229336838	8.989917666	2.462277565	0.019622014	0.248079788	-3.394592999
IFI27	1.126270095	10.77401532	3.097420419	4.15E-03	0.12217618	-2.030096345
IL10RA	1.758412442	7.741003398	3.760680306	7.14E-04	5.18E-02	-0.448916736
IDO1	1.726049947	8.191623374	2.824352429	8.25E-03	1.70E-01	-2.638510724
CXCL10	1.769454009	8.46969993	2.075231628	4.64E-02	3.53E-01	-4.125882705
ISG20	1.45907201	7.652014498	3.10186306	0.004101815	0.121683825	-2.019960048
ITGAM	1.287680606	7.088475734	2.706386842	0.011001205	0.19852981	-2.891676554
ITGB2	2.464996223	7.840432579	4.523481362	8.52E-05	0.017435001	1.483545989
LCP1	1.51020218	8.874061162	3.429820859	1.74E-03	0.077903959	-1.253364999
LTF	1.664651775	8.16718412	2.151985788	3.94E-02	3.34E-01	-3.987900664
LYN	1.443538636	7.934231417	4.246664501	1.86E-04	2.64E-02	0.773168949
LYZ	3.461839278	9.138313494	5.513669632	5.07E-06	0.003398946	4.053439457
MEF2C	1.06367527	8.864186566	6.495995376	3.15E-07	0.000633354	6.566914021
MICB	1.283842867	8.432257502	3.832196515	5.87E-04	0.046662668	-0.271701006
MNDA	1.944058451	7.68802875	3.405638692	0.001857523	0.079530964	-1.311036019

MX1	1.053339525	10.15669734	2.129124163	0.041367918	0.340011054	-4.029381896
MX2	1.208272091	8.90964076	2.784273318	9.10E-03	1.79E-01	-2.725220815
NCF2	1.949044693	7.961713901	3.649872236	9.65E-04	5.98E-02	-0.721313789
NME1	1.002868864	9.907840822	3.155207126	3.58E-03	1.14E-01	-1.897698368
OAS1	1.883982044	9.238331718	3.726464874	7.84E-04	0.053795539	-0.533320467
CALHM2	1.149877227	7.717842571	5.661573694	3.32E-06	0.00242709	4.436314132
HN1	1.223286865	7.92981769	4.344144204	1.41E-04	0.022918504	1.022435856
CKLF	1.029976095	9.114519974	3.542825412	1.29E-03	0.066954132	-0.981709777
PLAC8	2.005619689	6.904337542	3.734320791	7.68E-04	5.36E-02	-0.513963759
TNFRSF12A	1.505470167	8.862815372	3.067891809	0.004474091	0.126971151	-2.097285314
CPVL	1.210937396	7.923576346	2.523069717	1.70E-02	0.229734218	-3.27214045
PPP1R3C	1.081564064	9.810652913	2.790065265	0.008971252	0.178911318	-2.712733669
GIMAP4	1.066095495	10.51388123	4.418183879	1.15E-04	2.05E-02	1.212445487
CYP26B1	1.486128163	7.889780569	2.303553239	0.028182476	0.288613415	-3.704951498
C8orf4	1.464050458	9.91534729	5.851981163	1.93E-06	0.001946115	4.927420444
PSMB9	1.149756786	10.9382252	4.541310085	8.10E-05	0.017410612	1.529538356
TIGAR	1.062978409	7.552244523	3.320516087	0.002325317	0.089912261	-1.512669443
PTGER2	1.262261601	7.121536319	3.228962396	0.002954177	0.102761217	-1.727025988
KIAA1462	1.058038031	7.758668561	3.518102528	0.001376638	0.068968973	-1.041436211
PTPRC	1.520083188	6.649678491	3.534597222	1.32E-03	0.067671768	-1.001605512
PTPRE	1.045228874	7.86665182	2.953498611	5.98E-03	0.14881474	-2.354464495
RAC2	1.298734215	9.039301916	3.527947469	1.34E-03	0.068020575	-1.017671667
ACTA2	1.384026648	11.05579051	3.125026618	0.003865086	0.117698285	-1.966994894
RNASE6	1.359659579	7.485663043	2.110629291	4.30E-02	0.3451199	-4.062703594
S100A8	2.081494511	9.691964093	2.669478063	0.012026294	0.203903015	-2.969582677

CCL2	1.345476319	7.561830542	2.208988717	3.48E-02	0.317231702	-3.88308556
CCL4	1.868492407	8.8979264	3.486436536	1.50E-03	7.15E-02	-1.117699022
MS4A6A	1.501160919	8.384973582	2.583967851	1.48E-02	2.18E-01	-3.147577381
BMP2	1.278951698	9.788394794	2.523444183	1.70E-02	2.30E-01	-3.271380245
TAGLN	1.463379584	9.351012226	2.813637808	0.008466152	0.172946727	-2.661760242
TGFBI	1.792390756	9.264062891	2.736344105	0.010229685	0.191580633	-2.827978933
THBD	1.075737036	7.978789754	3.271882779	2.64E-03	9.66E-02	-1.626870472
TIE1	1.092945646	7.576198937	3.128567908	3.83E-03	0.117677204	-1.958880539
TIMP1	1.022837412	11.80032286	2.73853	0.010175414	0.191367512	-2.823315019
TLR1	1.020357579	5.710092232	2.467618682	0.019380496	0.24723966	-3.383911837
TLR2	1.485748754	7.814631146	2.744684615	0.010024049	0.189405887	-2.810171617
C1QA	2.063383904	7.751268347	2.483697284	0.018669798	0.242125823	-3.351667305
TNFRSF1B	1.180125557	7.364571534	3.312878724	0.002372428	0.090417879	-1.530652742
C3AR1	1.430225049	8.100369544	2.467368504	0.019391747	0.24723966	-3.38441248
PHLDA2	1.558843075	6.458213679	2.657620994	0.012374019	0.205343598	-2.994474172
TYROBP	2.98300807	8.71921773	5.200008138	1.24E-05	5.76E-03	3.238856823
UCP2	1.010563454	8.78271952	2.701769038	1.11E-02	0.19852981	-2.90145851
LAPTM5	1.762819849	9.77238142	3.80520208	6.32E-04	4.86E-02	-0.338716186
PXDN	1.040816746	9.163979004	2.955008217	5.96E-03	1.49E-01	-2.351103791
CXCR4	1.349866177	8.55377937	3.111855793	0.003998045	0.120380038	-1.997134603
LST1	1.573271773	7.782253429	4.647875154	5.99E-05	0.015716044	1.804910487
TFPI2	1.170968688	8.832996252	2.516368647	0.017298822	0.231815728	-3.285732177
NETO2	1.723306281	8.011145364	4.053317625	3.19E-04	0.03535287	0.282354789
CASP1	1.320751283	7.350815488	4.341010088	0.000142605	0.022918504	1.014405063
GPR65	1.138480159	6.670757888	2.838605441	0.00796032	0.168017697	-2.60750641

IFITM1	1.054065714	11.67585823	2.958870095	5.90E-03	0.148445424	-2.342502292
ACTN1	1.243479948	7.358068609	3.104465594	0.004074545	0.121471738	-2.014018802
TNFSF10	1.103006477	9.868178229	3.236999039	0.00289303	0.101838021	-1.70831823
NMI	1.021717837	9.062323387	3.710262204	8.20E-04	0.055588936	-0.573200209
CD14	1.928388565	9.036057353	4.099860707	0.000280191	0.033830252	0.400019583
LY86	1.034540159	8.018126254	3.002465142	5.28E-03	1.38E-01	-2.244995501
CD36	1.289686314	5.894315327	2.084666815	0.045506152	0.35070011	-4.109119423
ADAMTS1	1.925424756	9.230857747	4.673171181	5.57E-05	0.015189876	1.870383019
GMFG	1.07230973	9.241330034	4.63942951	6.13E-05	0.015754953	1.783059374
CYTIP	1.444773094	6.724741251	3.333208852	0.002249003	0.088451015	-1.482742523
CD48	2.340554521	8.382224724	5.651865741	3.42E-06	2.43E-03	4.411217068
CD53	2.77291088	9.682215503	5.674505668	3.20E-06	0.00242709	4.469737939
ISG15	1.352320169	9.675726941	2.187461347	0.036446519	0.321695779	-3.922899923
ADGRE5	1.071642431	8.333642554	4.331913553	0.000146302	0.022918504	0.991102239
RASSF2	1.312315694	7.500783902	3.410785842	0.001832353	0.079296895	-1.298774908
RAPGEF5	1.082850875	8.278699721	4.128261748	2.59E-04	0.032314064	0.47197854
RIDA	-1.404858899	9.11860268	-2.65409705	0.012479151	0.205343598	-3.001859091
MYL9	-1.139408367	11.6116181	-3.588297243	0.001140099	0.063729423	-0.871445487
SLC19A2	-1.260045943	6.687292907	-6.131792338	8.76E-07	1.06E-03	5.64438292
LEFTY1	-1.302868789	6.476979523	-5.39819794	7.04E-06	4.24E-03	3.753875335
SLC17A3	-1.598468896	9.363650571	-2.070443493	4.69E-02	3.54E-01	-4.134368143
FTCD	-1.207557298	8.059013021	-2.222774059	0.033728251	0.313740296	-3.85744449
SLC27A2	-1.496801272	9.109639244	-2.100159255	0.044024236	0.348829764	-4.08147278
ESM1	-1.550234226	8.417158163	-2.677732977	0.011789595	0.201911454	-2.952213881
CHI3L1	-1.0583532	11.87250355	-2.278145677	0.029830943	0.294023513	-3.753323769

CYP17A1	-1.471979338	7.113312807	-2.63447574	0.013079848	0.208071253	-3.042869644
CYP27B1	-2.858765526	7.768789338	-6.734243395	1.62E-07	0.000603163	7.162654885
DEFB1	-2.041889621	9.779850363	-2.152239441	0.039351235	0.333920768	-3.987438624
AFM	-1.188476527	6.753612759	-2.134319959	4.09E-02	0.338293425	-4.019982653
DPEP1	-1.399103764	8.820233201	-2.095174335	4.45E-02	0.348829764	-4.090384937
TSC22D3	-1.120316741	11.825893	-4.800217262	3.88E-05	0.012669398	2.199705199
EPHX1	-1.307537254	8.239811227	-4.053064339	0.000319154	0.03535287	0.281715373
ALB	-2.51390987	6.880747528	-3.150952781	0.00361557	0.114160332	-1.907486053
FABP1	-1.588334299	7.305360131	-2.244624801	0.032138723	0.306200727	-3.816570998
FKBP5	-1.685801422	8.329460742	-4.062403249	3.11E-04	3.52E-02	0.305297943
DIP2C	-1.06748798	8.452447707	-4.61651042	6.55E-05	0.015930989	1.723783688
FBXO21	-1.168201217	10.41650496	-4.769268614	4.24E-05	0.013126723	2.119414043
LPIN1	-1.092325784	8.502391361	-6.39617494	4.16E-07	0.000672562	6.315413351
TMEM2	-1.447358504	8.973066213	-6.578797509	2.50E-07	0.000603163	6.7747047
G6PC	-1.907203988	5.479825589	-3.451893251	0.0016428	0.075906542	-1.20058006
SLC37A4	-1.068172383	9.344609722	-3.859063753	0.000545594	0.046662668	-0.20485764
GHR	-1.129292393	10.48695576	-3.319613382	0.002330838	0.089912261	-1.514795939
SLC6A16	-1.244249347	7.273214099	-4.539298976	8.15E-05	0.017410612	1.524349133
GSTA1	-1.91350484	10.07005976	-2.108123171	0.043279214	0.346154442	-4.06720244
HPD	-2.339718954	8.94215143	-2.557555716	1.57E-02	0.22327652	-3.201830932
IGF1	-1.621566441	7.929502259	-2.915883501	6.57E-03	1.56E-01	-2.437907645
APOH	-1.379341032	6.677843793	-2.87131135	0.007340587	0.16322329	-2.536033818
ARG2	-1.130332916	7.23048032	-3.38141245	0.00198053	0.083284359	-1.368641971
LPL	-1.935374001	8.951093054	-3.488674417	0.001489349	0.071463652	-1.112318292
MAOA	-1.253876723	9.281233704	-3.792143524	6.55E-04	4.90E-02	-0.371081577

MT1X	-1.107954285	9.510941421	-2.538282184	0.016431826	0.225322304	-3.241199913
PAH	-1.567727035	10.72078849	-2.090445225	0.044948342	0.349907335	-4.09882534
PCK1	-2.158054677	10.48775084	-2.643313538	0.012806036	0.206711341	-3.024420598
PDK4	-2.133589177	7.967459341	-7.701722928	1.16E-08	0.000140441	9.505992077
UPB1	-1.219863602	7.307488702	-2.042519372	0.049763103	0.364445691	-4.183564219
CCDC91	-1.050755989	10.13957593	-3.89381653	0.00049585	0.045355275	-0.118188979
PRODH2	-1.354938654	10.04144547	-2.401046922	0.022594524	0.264101178	-3.515955012
SDC1	-1.330188309	8.130051544	-2.398532798	0.02272493	0.264917842	-3.520894891
PBLD	-1.136603119	9.008453816	-2.323771175	0.026930046	0.282222869	-3.666195874
XYLT1	-1.111264775	7.302998736	-4.933273142	0.0000266	0.011062871	2.545266893
USP46	-1.049927684	9.258699673	-3.511347888	0.001401755	0.069649353	-1.057726284
SOWAHC	-1.124288088	7.546180566	-4.063409292	0.000310107	0.03521262	0.307839207
RASL11B	-1.039689522	11.18406912	-3.544628923	0.001282143	0.066954132	-0.977346542
ELOVL4	-1.093221906	6.305596762	-3.472877129	0.00155348	0.073268407	-1.150271838
UMOD	-2.843265793	10.5106908	-2.251940074	0.031621817	0.304467159	-3.802824451
ZBTB16	-2.264087666	7.881084284	-3.367251839	0.002056022	0.084436766	-1.402233356
ZNF189	-1.418661523	9.172964451	-7.022647205	7.31E-08	0.000441538	7.874548055
CACNB2	-1.037091041	7.924522186	-3.338797812	0.002216168	0.088199444	-1.469549203
LRRC2	-1.124154605	9.271682467	-3.126568278	0.003849801	0.117677204	-1.963462952
CALML3	-1.126856678	6.62470469	-3.079183611	0.004346923	0.125940929	-2.071629931
C1orf21	-1.449631569	8.554906677	-3.850219787	0.000559011	0.046662668	-0.226876282
USP9Y	-1.111509719	4.868581731	-2.728999324	0.010414026	0.192851143	-2.843634102
TLN2	-1.042106251	7.831024086	-2.701344332	0.011136285	0.19852981	-2.902357671
KCNK5	-1.306860591	7.005931179	-3.754627336	0.000726222	0.051884074	-0.463866819
DLG5	-1.218962185	9.549684511	-4.840270591	0.0000346	0.012010107	2.303670969

SLC22A8	-2.181565233	7.901843046	-3.730706821	0.000775159	0.053788879	-0.522870139
CXCL14	-2.411662049	10.45026144	-3.073477029	0.004410755	0.126603014	-2.084601378

Table S9 Top 5 common downregulated DEGs identified using the Degree, Radiality, Stress, and Betweenness algorithms

Gene symbol	Degree		Radiality		Betweenness		Stress	
	Rank	**Score**	**Rank**	**Score**	**Rank**	**Score**	**Rank**	**Score**
ALB	1	11	1	3.15385	1	39.7	1	72
FABP1	2	9	2	3	4	24	4	48
PAH	3	9	3	2.92308	6	14	5	30
G6PC	4	8	4	2.92308	3	7.86667	3	28
PCK1	5	8	5	2.92308	7	6	6	20

Table S10 Gene expression matrix of the 5 hub genes after removal of batch effects

Sample number	ALB	FABP1	G6PC	PAH	PCK1
GSM1046922	9.086677009	8.562296554	6.304110116	11.27091202	11.20982464
GSM1046923	9.00681915	8.849875552	6.727468497	11.46536285	11.11406352
GSM1046924	8.466159249	7.859006345	6.090725383	11.31088432	11.4297326
GSM1046925	8.341659151	7.928733459	6.792098219	11.26330762	11.4529867
GSM1046926	9.44792641	8.359369571	5.629522567	11.44083754	10.95401675
GSM920350	4.905122533	6.571131258	5.467792127	9.36273674	10.33584067
GSM920351	7.294916004	7.621222651	6.853742602	10.81833052	11.19679954
GSM920352	7.366198069	7.307334279	5.594596921	11.00898303	11.72646246
GSM920353	8.678103745	8.454956019	7.200831939	11.55021769	11.51125977
GSM920401	7.116818884	8.61714839	6.803185522	11.55746693	11.57602057
GSM920402	5.821841117	7.956126009	6.125414693	10.75777312	10.65237786
GSM920403	4.239272926	5.445416884	4.542282562	7.273853231	7.392827783
GSM920404	5.455302747	5.677806088	4.346947225	9.122214946	8.993158507
GSM920405	4.802505902	6.745124773	5.227500953	9.942707123	9.79706942
GSM920406	4.35344662	5.920581291	4.497660325	9.697283706	8.377826476
GSM920407	4.024539609	5.053882063	4.379840554	8.554606113	9.338974354
GSM920408	7.11124715	7.088447987	5.161074397	10.85153343	10.58214813
GSM920409	3.950439181	5.842272616	4.500824835	7.724935001	7.478469495
GSM920410	5.917827544	6.705481894	5.189973908	10.65584171	9.06539671
GSM920411	7.177774545	7.57300591	5.51237597	10.80628457	10.71808981
GSM920412	6.415805146	7.637042499	6.196877675	10.90572131	11.89024879
GSM920413	5.247111005	5.518704961	4.532453725	8.735982512	9.727870464

GSM920414	7.079271932	7.366642881	5.456649365	10.81302989	10.73102845
GSM920415	6.21292432	6.350623624	5.021614121	10.34819778	9.679260484
GSM920416	5.820664477	8.463934574	4.906105664	10.75944483	11.44659315
GSM920417	4.198138658	6.149464289	4.593306341	9.120643847	7.8868673
GSM920418	6.296028487	6.553755948	4.568445868	10.06848966	9.714593662
GSM920419	5.374404617	6.342569502	4.625273769	9.83974	9.074690475
GSM920420	8.418928707	8.065242288	5.636532258	11.23726589	10.83149621
GSM920421	5.672327353	6.845375435	5.230413589	10.65559111	10.30503178
GSM920422	7.500689102	8.67955291	7.381703688	11.30595655	11.15003246
GSM920423	5.246659054	6.553314005	5.010161468	10.25971194	10.41988965
GSM920424	6.260793927	8.74659604	7.026247042	11.71769978	11.09072005
GSM920425	5.202506378	7.076396551	6.613251599	10.2974381	11.07496647
GSM920426	7.573723464	8.198470392	5.63381397	11.21465478	10.61421313
GSM920427	5.923149905	7.133584147	5.15517606	10.33256468	10.28578093
GSM2462533	5.779569931	9.040150501	5.323333783	10.16593748	10.08411516
GSM2462534	8.935133193	8.254389666	6.240635501	11.72250754	12.14085011
GSM2462535	5.365326384	6.432159624	5.176737057	8.229916576	9.858233313
GSM2462536	7.408602136	6.994188068	5.856794414	11.40641719	11.46497884
GSM2462537	5.697636145	8.041638776	5.961239154	10.84553065	10.68660557
GSM2462538	7.983938743	8.54180657	6.887911607	11.87309232	11.78568824
GSM2462539	6.916733156	9.264541069	6.943290196	12.48636491	12.6813464
GSM2462540	9.009639955	8.654835808	7.46385631	11.92613546	11.34461542
GSM2462541	7.314974044	6.950240917	6.425157947	11.22040242	11.39806275
GSM2462542	7.274604117	9.269423204	6.569221467	11.49164588	11.62291701
GSM2462543	7.17851593	8.91734774	6.853383365	11.97762108	12.10601089

GSM2462544	7.314083198	7.246285482	5.949092535	9.761724965	10.26965144
GSM2462545	6.699815614	8.224338231	5.517959252	10.96168069	10.82818136
GSM2462546	9.325924395	7.926042914	6.635151534	11.86874635	11.60016749
GSM2462547	6.137542864	9.182555817	5.698766328	12.32673467	11.90695363
GSM2462548	6.060852183	8.043971469	5.707248667	11.4346026	11.03790127
GSM2462549	8.090380009	8.503621766	7.281403004	11.36464693	11.62823563
GSM2462550	5.585923447	7.838153899	6.404541762	11.09725503	11.8730813
GSM2462551	9.327616862	8.787466279	6.031413939	11.74019755	11.98770547
GSM2462552	6.441586312	9.408476843	6.304797292	10.05263865	10.86073674
GSM2462553	8.702142863	7.040662093	7.080986305	11.01424566	11.0473531
GSM2462554	6.00214907	7.52255558	5.463348805	9.634816544	10.36872513
GSM2462555	4.428720406	5.065884476	3.828648705	6.463964545	6.515112456
GSM2462556	5.082639858	6.392515631	4.71422219	8.674611676	9.503126766
GSM2462557	4.457380449	7.122383018	5.209877732	10.33355607	8.832082908
GSM2462558	4.400024957	4.936414044	5.4605417	9.131378048	9.584858204
GSM2462559	3.950912353	4.139392842	4.641888858	7.233927798	7.291532181
GSM2462560	4.624540895	6.853047461	4.775407995	10.60573968	8.870586442
GSM2462561	3.631730183	5.767496535	4.279162082	9.051682686	8.005089712
GSM2462562	4.11348402	6.944596096	4.70038251	10.80803167	9.256581624
GSM2462563	5.857061502	6.258970586	5.058274197	9.950769845	9.70245504
GSM2462564	6.827508996	7.249738826	6.405998198	10.41872841	10.52089723
GSM2462565	4.325870851	5.625037033	4.314567367	8.960774639	9.273460621
GSM2462566	5.332490389	5.596616501	4.610238679	8.572599819	8.384744331
GSM2462567	5.111571828	6.10623798	4.81184927	10.61975362	9.664936748
GSM2462568	4.938420475	7.17360315	5.052725269	10.12971168	8.80301823

GSM2462569	4.23468586	6.386023739	4.995762894	8.636776232	9.048964886
GSM2462570	2.766173118	5.366086918	3.467309871	9.028003352	7.903011164
GSM2462571	5.610934397	6.312489048	4.834294756	9.29742158	8.944500864
GSM2462572	5.597507969	6.676005944	5.504657809	10.19099462	9.604965355
GSM2462573	5.885388716	4.063781857	4.335921517	8.86680789	8.500000861
GSM2462574	4.962522897	6.838333651	5.972875248	9.369267807	9.833798701
GSM2810714	9.424858071	8.781813923	7.525505479	12.19131219	12.77521288
GSM2810715	7.845361949	8.543882091	6.827727758	11.49829105	11.8465531
GSM2810716	8.669808855	8.509493433	6.94553036	11.72941574	11.81546315
GSM2810679	7.689772925	7.849547986	5.557756708	11.04389637	10.92617908
GSM2810680	7.643832794	8.814840015	6.850984292	11.85226578	11.85274504
GSM2810681	6.266965626	8.175825197	6.18183396	10.99233608	10.85424962
GSM2810682	4.600749073	5.539373628	4.674354899	7.353990749	7.512297388
GSM2810683	5.868758734	5.833914703	4.351843282	9.255566101	9.161125445
GSM2810684	5.220949886	6.915737509	5.316083308	10.14014911	9.99492308
GSM2810685	4.740693091	6.101047581	4.540687575	9.867714027	8.516520447
GSM2810686	4.361635005	5.195805274	4.383660671	8.701128583	9.537621592
GSM2810687	7.628268284	7.22808786	5.205072893	11.09073973	10.84815337
GSM2810688	4.321557455	5.946382881	4.620407381	7.782479876	7.603619634
GSM2810689	6.389760555	6.835649997	5.209227622	10.9051551	9.244703337
GSM2810690	9.129150472	8.37008051	5.762079298	11.59037708	11.18035252
GSM2810691	6.925198146	7.843337553	6.272678349	11.13553274	12.18789041
GSM2810692	5.705346303	5.673701132	4.555622213	8.854357476	9.943423121
GSM2810693	7.598322272	7.557620887	5.620671049	11.07641603	10.90381969
GSM2810694	6.666613291	6.435210643	5.04643189	10.57366242	9.88811301

GSM2810695	6.244406176	8.735625621	4.96213362	11.03339388	11.73656998
GSM2810696	4.545278856	6.343414027	4.692603904	9.261971501	7.994783978
GSM2810697	6.772373091	6.664004317	4.616649737	10.2537068	9.906434523
GSM2810698	5.930083391	6.523363292	4.806608886	10.07390325	9.327265778
GSM2810699	6.288745448	7.16100389	5.337807469	10.9253369	10.59272081
GSM2810700	8.175973701	9.060023029	7.481414006	11.64342698	11.50449364
GSM2810701	5.863795166	6.905416071	5.090765878	10.56062858	10.73296629
GSM2810702	6.916412415	9.095088488	7.128951386	12.07280826	11.42102385
GSM2810703	5.715933467	7.248072217	6.702700113	10.5338017	11.28591949
GSM2810704	8.145652134	8.455868742	5.67819564	11.53106638	10.8689046
GSM2810705	6.464912986	7.360086805	5.188558561	10.59293454	10.53861939

Table S11 GS and MM values with IgAN clinical traits in the turquoise module

Gene symbol	GS.ACR	p.GS.ACR	MMturquoise	p.MMturquoise
TMEM52B	0.078712576	0.76395898	0.828870599	3.92E-05
SLC27A2	0.322622782	0.206592502	0.928657046	7.49E-08
HLA-DQA1	0.290049505	0.258769435	0.567018467	0.017616268
CYP24A1	0.506794204	0.037878871	0.596209265	0.011537691
SLC13A1	0.259833767	0.313859573	0.88657992	2.14E-06
SLC10A2	0.230835596	0.372720117	0.847588863	1.74E-05
SLC17A3	0.459033932	0.063812737	0.841322187	2.31E-05
TMED6	0.023646192	0.928222549	0.692449415	0.002064995
CYP4F2	0.162746629	0.53256642	0.429340445	0.085461946
MT1G	0.316360021	0.216045779	0.746942208	0.00057033
UMOD	0.152858944	0.558072573	0.626829722	0.007084684
RBP4	-0.349766482	0.168755354	0.262858821	0.308054946
CXCL11	0.313429319	0.220563704	0.412669753	0.099720406
SOSTDC1	0.319120845	0.21184472	-0.074881946	0.775161646
SERPINA5	-0.056815902	0.82852897	0.69344408	0.002021991
ANPEP	0.431399385	0.08380935	0.860409371	9.37E-06
OTOGL	0.522303467	0.031490956	0.565955903	0.017877271
PLPPR1	0.596197522	0.011539745	0.76013558	0.000398065
SLC22A8	0.425316294	0.088759758	0.938384469	2.57E-08
GGT6	-0.027194437	0.917484173	0.51822508	0.033084064
DNER	0.118159446	0.651511656	0.497413152	0.042194377
AOC1	0.307070593	0.230573448	0.796618929	0.000129543

GBA3	0.349807725	0.168701689	0.920318253	1.67E-07
PIPOX	0.226015884	0.383059502	0.924527585	1.13E-07
HPD	0.458198914	0.064359563	0.943393416	1.38E-08
BBOX1	0.184662974	0.477996162	0.903638474	6.63E-07
SLC6A19	0.46178133	0.062037779	0.925248428	1.05E-07
TUBAL3	-0.091788074	0.726063886	0.3323121	0.192504621
AGXT2	0.351942748	0.165939279	0.950455389	5.18E-09
AKR1C2	0.323434474	0.205387324	-0.383570069	0.128544001
OMD	-0.183936672	0.479759435	-0.66826268	0.003364979
CXCL10	0.332451579	0.192306568	0.535394565	0.026772256
CTXN3	0.492925626	0.04438572	0.828170869	4.03E-05
SLCO4C1	0.32980656	0.196085233	0.941553409	1.74E-08
SLC12A1	-0.054829823	0.834443741	0.48807285	0.046850959
DIO1	0.263279186	0.307253398	0.881077076	3.00E-06
MGAM	0.585274122	0.01358023	0.822973881	4.96E-05
FABP1	0.304226886	0.235141953	0.76290979	0.00036803
KMO	0.336499137	0.186617605	0.843562042	2.09E-05
MIOX	0.289361572	0.259952032	0.938925239	2.41E-08
SLC22A12	0.46317048	0.06115436	0.751046068	0.000511156
TMEM27	0.378300354	0.134324398	0.970511091	1.12E-10
CUBN	0.416810271	0.096030806	0.863513759	7.99E-06
DEFB1	0.081887565	0.75470707	0.692267808	0.002072927
FREM2	0.25904818	0.315377466	0.9160619	2.44E-07
XPNPEP2	0.394698759	0.116910393	0.925628866	1.01E-07

DPYS	0.444173317	0.074070088	0.95283276	3.61E-09
SLC47A1	0.373924301	0.139259334	0.792763388	0.00014735
CAPN3	0.379703269	0.132768278	0.72824686	0.000916793
PLG	0.20864245	0.421609223	0.913892145	2.94E-07
FAM150B	0.150238803	0.564919349	0.290781548	0.257514681
GLYAT	0.309109855	0.227332347	0.953635315	3.18E-09
LOC102724873	-0.09745785	0.709811279	-0.244453922	0.344356749
SLC5A12	0.407940633	0.104057048	0.977265452	1.63E-11
FAM151A	0.138795129	0.595238206	0.827393392	4.16E-05
HAO2	0.329031509	0.197201629	0.906976804	5.14E-07
UGT3A1	0.310269731	0.225501941	0.812236299	7.47E-05
AFM	0.118729737	0.649930532	0.844214153	2.03E-05
FMO1	0.360121545	0.155639566	0.91541185	2.58E-07
FBP1	0.166112418	0.524006619	0.851485737	1.45E-05
LRRTM2	-0.37926324	0.133255009	-0.477716937	0.052454959
FOLH1	0.289765245	0.259257688	0.707672843	0.001482865
ALDOB	0.390748089	0.120952074	0.946341129	9.31E-09
TMEM174	0.550091334	0.022146484	0.925994471	9.78E-08
LOC100505985	0.408762373	0.10329405	0.959052602	1.27E-09
MPP3	-0.039282173	0.881013537	-0.367678683	0.146516897
TMEM207	-0.026889247	0.918407292	0.430521191	0.084511369
SLC16A9	0.439074173	0.077852991	0.908105267	4.70E-07
SLC13A3	0.392030684	0.11962936	0.922283517	1.40E-07
GLYATL1	0.164561403	0.527943262	0.895780068	1.17E-06

IYD	0.552661759	0.021405752	0.740656554	0.000671923
SLC2A2	0.256495291	0.320339845	0.817157692	6.21E-05
PAQR5	0.171089285	0.511466626	0.659308752	0.003988948
C9orf66	0.510644242	0.036208437	0.943193448	1.42E-08
PARD3-AS1	-0.564423286	0.018259061	-0.291449673	0.256372792
SMIM24	0.372784089	0.140565413	0.93756288	2.83E-08
CLRN3	0.273835709	0.287531126	0.853854706	1.30E-05
SLC34A1	0.401896764	0.109792379	0.903239294	6.83E-07
SLC22A2	0.398653622	0.112960466	0.728824107	0.000903965
BORA	0.052108394	0.842562059	-0.050491971	0.847391182
SLC4A4	0.334907851	0.188840759	0.831215857	3.56E-05
KCNJ1	0.101444579	0.698453146	0.715714958	0.001234689
NPTX2	0.072338494	0.782623342	-0.61728808	0.008290479
CYP8B1	0.314715893	0.218572932	0.686556129	0.002335427
DAO	0.47885986	0.051813005	0.933308285	4.58E-08
BHMT	0.454622352	0.06674096	0.927012336	8.84E-08
NAT8	0.359138183	0.156854361	0.962954328	6.07E-10
APOD	0.172749652	0.507314565	-0.401211367	0.110456612
SLC23A3	0.122989225	0.638166177	0.782025292	0.000208102
ASPSCR1	-0.112331285	0.667749699	-0.371734159	0.141775511
ACMSD	0.30321356	0.236783659	0.878662373	3.46E-06
DMGDH	0.271542583	0.291748637	0.822153901	5.13E-05
SLC3A1	0.374842501	0.138213662	0.903767665	6.56E-07
ACSM5	0.423306039	0.090441108	0.764385197	0.000352842

GDA	0.415002779	0.097629225	0.621395219	0.007752816
PAH	0.405440323	0.106403263	0.880756789	3.06E-06
RNF128	0.235714978	0.362412409	0.827211154	4.19E-05
ACPP	0.000287369	0.999126641	0.267729326	0.298843913
KCNJ15	0.489513164	0.046108771	0.963589611	5.34E-10
DPP4	0.036758692	0.888610986	0.596701401	0.011451858
PCK1	0.277378063	0.281088884	0.868644474	6.09E-06
CX3CR1	0.507217105	0.037692572	0.222644331	0.390384747
UBD	0.218903356	0.398601077	0.574440045	0.015875487
UNC80	0.151350214	0.562010668	0.380097711	0.132333021
LRRC19	0.274511009	0.286296178	0.905393007	5.80E-07
DOK7	-0.20324581	0.433983822	-0.408920951	0.103147267
LMO3	0.03993733	0.879042633	-0.392031419	0.119628605
RNF183	0.364327698	0.150515697	0.561171642	0.019090204
PAX8-AS1	0.076055065	0.771726299	-0.458475067	0.064178337
ENC1	0.273955517	0.287311794	-0.131439283	0.615069992
ALB	0.291981798	0.255465596	0.519027584	0.032765816
SLITRK2	-0.071058983	0.786383855	-0.459187223	0.063712726
TINAG	0.380257424	0.132157064	0.847539966	1.75E-05
SLC44A3	0.385493275	0.126478215	0.613572033	0.008802251
SUSD2	0.60099548	0.010724229	0.829623709	3.80E-05
PKI55	-0.303653301	0.236070339	-0.343927918	0.176468449
PSAT1	0.408096153	0.103912339	0.746503815	0.000576974
SLC7A9	0.166213846	0.523749655	0.818867674	5.82E-05

CDH10	-0.069369421	0.791356354	-0.366127987	0.148358225
LOC100506922	-0.089052714	0.733945063	-0.472735025	0.055322873
C1D	-0.051070185	0.845663147	-0.478876541	0.05180368
ERICH4	0.29015265	0.258592411	0.783450678	0.000198999
KIF4A	0.060663605	0.81709508	0.287310214	0.263498299
HLA-DQB1	0.269087076	0.296305841	0.619930751	0.007941226
ENPP6	0.06860833	0.793598798	0.778283431	0.000233671
LGALS2	0.289617935	0.259510937	0.840196427	2.43E-05
RALYL	0.036732622	0.888689522	0.526287752	0.029992097
ELOVL7	0.192749205	0.458581401	0.522064825	0.031582521
CMBL	0.400283709	0.111360145	0.89110474	1.60E-06
RIDA	0.452497152	0.068186387	0.931027016	5.85E-08
NPL	0.540388092	0.025123933	0.662284311	0.003771979
CLHC1	-0.473721541	0.054745896	-0.389060839	0.122707657
SLC22A11	0.310492455	0.225151542	0.923906326	1.20E-07
ELOVL4	-0.288499901	0.261438017	-0.559650206	0.019489107
CXCL9	0.208859002	0.421116569	0.556119761	0.02043984
ADAM1A	-0.384286257	0.127771993	-0.233697587	0.366654591
IGSF11	0.182804734	0.482513809	0.70135394	0.00170544
GATM	0.387455114	0.124394889	0.908710507	4.48E-07
FGG	-0.271758481	0.291349979	-0.403343324	0.108399769
SLC1A1	0.198811656	0.444290307	0.771677714	0.000285225
LOC100505715	-0.385530789	0.126438151	-0.524069247	0.030819754
LOC102723864	0.085472249	0.744299139	0.543296241	0.024200857

SLC7A13	-0.277258217	0.281305394	0.181727004	0.48514341
PBLD	0.32189651	0.207674739	0.950510189	5.14E-09
SLC47A2	0.390015774	0.121711873	0.913740671	2.98E-07
SUGCT	0.228275604	0.378192447	0.784020446	0.000195455
RSPO3	-0.381625464	0.130656524	-0.571122135	0.016636174
CRYM	0.243359907	0.346588452	0.900132796	8.57E-07
PPP1R14C	0.36987241	0.143938852	0.176020099	0.499182875
METTL7B	0.139396347	0.593628921	0.693707837	0.002010712
PROC	0.196249533	0.450302046	0.419689201	0.09352373
AZGP1	0.319687683	0.210988771	0.900058553	8.62E-07
ACSM3	0.329203665	0.196953294	0.779560429	0.000224665
USP43	0.028487027	0.913575545	-0.10337158	0.692984591
ACE2	0.149488394	0.566886909	0.83274057	3.34E-05
HIST1H3I	0.297685644	0.245867016	0.306319524	0.231774531
OGDHL	0.239077695	0.355402824	0.893798045	1.33E-06
FABP3	0.304945311	0.233982405	0.713637573	0.001295247
TMEM176A	0.374667512	0.138412526	0.769250481	0.000306409
AGT	0.183858945	0.479948323	0.685205458	0.002401314
SMTNL2	0.162009666	0.534449065	0.500198674	0.04087597
ECT2	0.366849009	0.147500111	0.49204104	0.044827628
PRORSD1P	-0.021520338	0.934661947	-0.41590925	0.096825245
MRLN	0.381123209	0.131206043	0.499506692	0.041200534
FAM69A	-0.115707929	0.658324383	-0.443075054	0.074873254
GGTLC1	0.361526894	0.153914593	0.723751565	0.001021934

THY1	0.457575373	0.064770151	0.632145227	0.006476667
ACSF2	0.192307993	0.459630398	0.599753112	0.010930859
PCDHB14	-0.264645813	0.304656082	-0.495231564	0.043249214
APOE	0.357192346	0.159277079	0.523626386	0.030987051
ADAM32	0.011101065	0.966271154	-0.00797767	0.975757972
KCNJ10	0.011211829	0.965934797	0.685921945	0.002366176
GLDC	0.323415368	0.20541564	0.775610261	0.000253504
CLCN5	0.054470737	0.835514047	0.858954111	1.01E-05
AKR7A3	-0.051332312	0.844879981	0.582580842	0.014124638
SLC22A6	0.488768952	0.046491146	0.952353054	3.89E-09
LOC100506388	0.096855778	0.711531672	0.36413761	0.150744741
PTTG1	0.271166742	0.292443414	0.360979789	0.154584574
ZFPM2	-0.282761699	0.271467575	-0.354654492	0.162474816
VNN1	0.3767635	0.136043525	0.431597954	0.083651203
CD99P1	-0.424087529	0.089784778	-0.678654302	0.002742807
ZNF185	0.049634429	0.849955217	-0.53081222	0.028357196
MGST1	0.263697565	0.306456866	0.69144919	0.002108991
GBP3	0.064451601	0.805872568	0.391221481	0.120462688
ITIH2	0.419624957	0.093579159	0.336650701	0.186406765
SPP1	0.25862206	0.316202607	0.730471801	0.000868162
IL17RB	0.063372506	0.809066	0.810861329	7.86E-05
CLDN2	0.305123186	0.233695873	0.856996986	1.11E-05
DMD	0.276888072	0.281974723	-0.406143229	0.10573992
IMPA2	0.418650647	0.094422659	0.89534391	1.20E-06

SLC7A7	0.406736503	0.105182329	0.839585238	2.50E-05
ADH6	0.281766323	0.27323103	0.715260115	0.001247744
AGMAT	0.353058725	0.164507561	0.952293823	3.92E-09
RAVER2	0.31008025	0.225800316	0.383856577	0.128234774
EHHADH	0.247143174	0.338905922	0.753308518	0.000480779
VEPH1	0.248725281	0.335722477	0.655988285	0.004242902
BTC	-0.424501598	0.089438419	-0.467686528	0.058346783
DUSP9	0.255170304	0.322933304	0.794668759	0.00013831
IGFBP7-AS1	-0.357611303	0.158753316	-0.281799621	0.273171923
ZMYND12	-0.133561437	0.609321838	0.211649276	0.414795882
LRP2	0.371707967	0.14180579	0.926695213	9.12E-08
NAT8B	0.27929308	0.277643033	0.815090035	6.72E-05
SHMT1	0.313573913	0.220339387	0.865610523	7.16E-06
ALDH8A1	0.298113911	0.245155591	0.910663691	3.84E-07
LINC00645	0.146361117	0.575118071	0.750397354	0.000520154
BHMT2	0.294166894	0.251761302	0.911765334	3.51E-07
RNF212B	0.51495466	0.034405549	0.522675535	0.031348603
FCAMR	0.547901779	0.022793048	0.678826081	0.002733373
TUBB4A	-0.108308745	0.679039409	0.414623807	0.09796676
FLJ22763	0.004824531	0.985338245	0.700144466	0.001751017
EPSTI1	0.288384925	0.261636694	0.756574682	0.000439585
SEPT7P2	-0.031767287	0.903665053	-0.586029615	0.013430534
PPP1R3C	-0.190423306	0.464124818	-0.337119246	0.185755972
TLR8	0.241111708	0.351200405	0.521094664	0.03195687

PLS1	0.176377763	0.498297356	0.678068935	0.002775154
CLDN10	-0.047124765	0.857467154	0.485374912	0.048265349
HSD17B2	0.216308123	0.404355326	0.163873949	0.5296924
WDR72	0.088774976	0.734746707	0.861342761	8.94E-06
USP6NL-IT1	-0.464806041	0.06012623	-0.314522242	0.218871834
MUC13	0.318985556	0.212049344	0.429515672	0.08532039
MAN2B1	-0.047688955	0.855777389	-0.326152822	0.201384567
UGT2A3	0.286337218	0.265190755	0.623664277	0.007467977
FOXQ1	0.167982888	0.519277178	0.529970701	0.028655953
ZNF417	-0.410619759	0.101584122	-0.569021269	0.017132434
ANKRD9	-0.1374198	0.598926245	0.086989175	0.739907287
PTGDS	-0.030250987	0.908244591	-0.638309625	0.005824825
KCNJ16	0.153628088	0.55606959	0.843287848	2.12E-05
LINC00052	-0.064240417	0.806497312	-0.536458548	0.026414233
ESRRG	-0.28075817	0.275024253	0.66115638	0.003853067
CCDC173	-0.199268757	0.443222105	-0.174121399	0.503896264
ZNF100	-0.495076084	0.043325145	-0.476490552	0.053150388
LONRF3	-0.514599591	0.034551413	-0.305251479	0.233489351
FAM182B	-0.260847368	0.311907492	0.03214996	0.902509749
ASS1	0.441320691	0.076169406	0.906063737	5.51E-07
ABCB1	0.450231774	0.069752378	0.537150078	0.02618353
APOM	0.358985225	0.157043894	0.936336538	3.26E-08
AIFM1	0.305075682	0.233772373	0.620924599	0.007812969
DYNC1I2	0.090189655	0.730666183	0.458543642	0.064133393

CD83	0.083984432	0.748613967	0.431332965	0.083862297
PNP	0.347333318	0.171941665	0.698854946	0.001800707
MRO	0.452606406	0.068111523	0.842509582	2.19E-05
SEC31B	-0.116614315	0.655802554	-0.488669201	0.046542579
CLEC3B	0.385389995	0.12658856	0.493177666	0.044260414
GSTA1	0.43370663	0.081985106	0.914351752	2.83E-07
UBE2C	0.171599599	0.510188799	0.287134232	0.263803911
SLC39A4	0.016666599	0.949378102	0.696258342	0.001904276
PLA2G10	-0.116040729	0.65739803	-0.345780757	0.173995722
GCNT2	-0.113758227	0.66376081	0.567723083	0.017444842
KCNK5	0.289020103	0.260540281	0.665957154	0.003517477
NUPR1	0.09860777	0.706529121	-0.514040657	0.034781984
LINC00942	-0.318385467	0.212958516	-0.329013777	0.197227219
DHRS11	0.329213641	0.196938909	0.49494698	0.043388271
CMAHP	-0.335214727	0.188410674	-0.387227738	0.124635109
RORC	0.415308248	0.097357762	0.717268802	0.001190935
NQO2	0.452934797	0.067886863	0.468443114	0.057885958
LDLR	-0.142011305	0.586650314	-0.468220327	0.058021372
ALMS1-IT1	-0.38246214	0.129744667	-0.366379534	0.148058462
PDZK1IP1	0.304841174	0.234150259	0.582474471	0.014146488
CYS1	0.191809565	0.460816872	0.637031374	0.005955448
OLR1	-0.002813369	0.991449882	0.533505397	0.027417169
TYRP1	-0.224093287	0.387227364	0.280348642	0.275754739
FAM201A	-0.36401452	0.150893184	-0.36634459	0.148100079

USH1C	0.293435742	0.252997035	0.712026213	0.001343886
PRRG4	0.194099173	0.455379292	0.547437682	0.022931957
GPAT3	0.549878667	0.02220865	0.876045848	4.03E-06
APOBEC3A	-0.023195792	0.929586511	0.58688238	0.013263134
GDF15	0.216305198	0.404361836	0.427009658	0.087361043
ANGPTL3	0.593213407	0.012071263	0.810071646	8.09E-05
SLC5A10	0.542279078	0.024520674	0.746858847	0.000571588
BEGAIN	0.335484567	0.188033029	0.541568126	0.024746149
SPC25	-0.033530626	0.898343025	-0.428301316	0.086304889
SH3GL2	0.193901355	0.455847808	0.778784262	0.000230104
HGD	0.056477057	0.829537484	0.85060288	1.51E-05
ZNF793-AS1	-0.489050322	0.046346299	-0.62377058	0.007454841
LOC100128361	-0.006335376	0.980747487	-0.427691199	0.086802609
LACTB2	0.176094673	0.498998181	0.664616307	0.003608718
SEPT7	-0.057295511	0.827101935	-0.567055077	0.017607328
DRAIC	0.488305148	0.046730653	0.514612276	0.034546194
ALDH6A1	0.246757979	0.33968361	0.867761111	6.39E-06
C1QL1	0.030235274	0.908292062	-0.387571218	0.124272351
KLHL12	0.186248612	0.474157706	0.195078335	0.453063808
TFAP2B	0.241368809	0.350671233	0.634864669	0.00618224
LINC00551	0.391902743	0.119760845	0.40388862	0.107878072
ITIH3	0.116305347	0.656661801	-0.165170375	0.526396016
CYP4A11	0.08151347	0.75579557	0.53773268	0.025990377
PECR	0.005101208	0.984497513	0.764701641	0.000349654

RANBP3L	-0.035179317	0.893370722	0.178569438	0.492887509
PLP2	0.173088669	0.506468745	-0.554602383	0.020859407
RGS18	0.262319039	0.309086013	0.466074295	0.059337862
SLC17A1	0.562442955	0.018761799	0.779672934	0.000223886
ANK2	0.530301127	0.028538357	0.552322456	0.021502409
LOC284825	-0.013295986	0.959606917	0.564613452	0.018211345
ANOS1	-0.229389824	0.375805228	-0.372809306	0.140536436
RBM47	0.064833172	0.804744054	0.755375796	0.00045435
ART4	-0.200174737	0.441108804	-0.273995332	0.287238927
CNDP1	-0.183690989	0.480356607	0.463811859	0.060749642
UPP2	-0.056543984	0.829338267	0.60943112	0.009401924
ACP2	0.350660508	0.167594631	0.454395758	0.06689399
PDPR	-0.232727681	0.368703942	-0.421023078	0.092378219
FTCD	0.255360907	0.322559476	0.603692283	0.010286376
PCDH19	0.205525422	0.428733859	-0.082808486	0.752029339
PKNOX2	-0.179298013	0.491095394	-0.463659505	0.060845599
G6PC	0.181924618	0.484660721	0.734353635	0.000788429
SFTA2	0.041244369	0.875112691	0.419900611	0.093341499
MAP7D2	0.054172619	0.836402837	0.555850628	0.020513773
HRG	0.3226119	0.20660869	0.801054954	0.000111326
LOC101927681	0.184584756	0.478185903	0.629466452	0.006777605
PIGZ	0.015453974	0.953057277	-0.394164448	0.117451383
MTTP	0.417297117	0.095603498	0.790062785	0.00016101
ISG15	0.309200853	0.227188401	0.484784047	0.048579346

WSCD2	0.138185588	0.596871584	0.375655928	0.137291845
TFCP2L1	0.128531223	0.622981342	0.69766138	0.001847724
LOC100506098	0.46172923	0.062071094	0.699903732	0.001760207
HNF4A	0.456449117	0.065516662	0.78232651	0.00020615
KCNQ1OT1	-0.440354268	0.076890373	-0.362342669	0.152919273
WDR49	-0.493939768	0.043883145	-0.487385308	0.047208401
CA4	0.125150702	0.632227218	0.616430524	0.008406414
DDX60L	0.013433302	0.959190076	0.453029799	0.067821971
MAP2K6	0.082335066	0.753405554	0.399505195	0.112122433
APOC1	0.249820466	0.333528932	0.258854971	0.31575144
HACD1	-0.616885743	0.008344712	-0.426416372	0.087849272
RAB11B-AS1	-0.122727294	0.638887293	-0.509492808	0.03670201
AK4	0.224717839	0.385870735	0.826346161	4.34E-05
LOC389906	-0.226785343	0.381398373	-0.557789862	0.019985684
RGN	0.092337052	0.724485256	0.510947616	0.036079239
UBE2T	0.170512735	0.512912104	-0.104004269	0.691192216
VEGFC	0.34157989	0.179635577	0.698292839	0.001822726
PSMB9	0.270830389	0.293066039	0.424813673	0.089178013
SDC1	0.369985706	0.143806559	0.880607907	3.09E-06
ADAM28	-0.170247128	0.513578653	-0.360230957	0.155504801
PANK1	-0.269037606	0.296398089	0.56117024	0.019090569
PLA2G4C	0.477597297	0.0525225	0.57476967	0.015801435
FGA	-0.197440908	0.447501496	-0.341203232	0.180147128
NHS	0.027000246	0.918071536	0.526307351	0.029984863

PPRC1	-0.555059722	0.020732249	-0.251183201	0.330811111
FRG1CP	-0.410028972	0.102125802	-0.607670318	0.009666583
LOC100506498	-0.438626881	0.078191412	-0.584265843	0.013782063
ZNF440	-0.271715151	0.291429962	-0.275840725	0.283873869
CCL8	0.124336275	0.634462498	0.680761748	0.002628888
PIR	0.154655181	0.553399774	0.399017958	0.112601384
EPB41L3	0.330929617	0.194474935	0.772272121	0.000280228
TUBA3FP	-0.493603495	0.044049312	-0.377510121	0.135206465
IGSF6	0.267388536	0.299482992	0.625387535	0.007257307
CALML4	0.100925871	0.699927577	0.730270296	0.000872477
FARSB	-0.618689965	0.00810371	-0.357639444	0.158718178
GJB1	0.21650887	0.403908642	0.601022342	0.010719796
SPATA1	-0.120648553	0.644621036	-0.630260458	0.006687258
ZNF385B	0.185312045	0.476423078	0.684060225	0.002458362
MCM8	-0.380251232	0.132163883	-0.488376999	0.046693489
LOC101929289	-0.258491615	0.316455456	-0.294152997	0.251784755
ZNF75A	-0.201771825	0.437396047	-0.126756593	0.627828503
DARS2	0.01731612	0.947407809	-0.304945876	0.233981494
ABCC2	0.173026122	0.506624745	0.639429861	0.005712256
SLC25A13	0.16787437	0.519551023	0.599440564	0.010983336
SLC6A9	-0.090774545	0.728981104	0.504826141	0.038755088
PAN3-AS1	-0.273911066	0.287393158	-0.341350011	0.179947667
SULT1C2	-0.015178686	0.953892648	0.797499244	0.000125742
ARSE	0.274512747	0.286293004	0.601051075	0.010715056

AURKA	0.605196746	0.010048365	0.41281559	0.099588758
UGT1A8	0.381634186	0.130646996	0.357247041	0.159208635
LOC101927402	-0.018629112	0.943425798	0.508919938	0.036949477
GRIK1-AS2	0.146639103	0.574384352	-0.246943882	0.339308154
MT1X	0.315438119	0.217460483	0.28701939	0.264003465
KIRREL3	0.300162578	0.241770313	0.402950916	0.108776298
HELLS	0.232297242	0.369615472	0.409992134	0.102159646
FAM26D	0.401699178	0.109983573	-0.246180716	0.340850993
EOGT	-0.167554244	0.520359248	-0.445309112	0.073246122
OAS1	0.172394519	0.508201307	0.571490145	0.016550418
C2CD4A	-0.433530467	0.082123365	-0.357406649	0.15900902
STEAP1	0.227511495	0.379834376	0.581359045	0.014377214
GOLGA8A	-0.346567103	0.172953336	-0.098760911	0.706092385
PNO1	-0.347051015	0.172313941	-0.304608012	0.234526358
DUS3L	-0.039623983	0.87998519	-0.383397796	0.128730185
RASL11A	0.165563435	0.525398452	0.426127597	0.088087622
NMRK1	0.303766425	0.235887056	0.442439827	0.075340694
COLEC11	0.566312892	0.017789246	0.586278847	0.013381437
ELMOD1	0.300090386	0.241889101	0.274034075	0.287168033
CDH16	0.071563087	0.784901743	0.781476136	0.000211701
C11orf54	0.227616873	0.379607705	0.826898319	4.25E-05
RPF2	-0.219486237	0.397314797	0.337348392	0.185438245
SMIM8	-0.233625811	0.36680603	0.205272984	0.42931359
RUNDC3B	0.186964764	0.47242906	0.609497768	0.009392022

ZNF789	-0.436367487	0.079917263	-0.435555549	0.080544181
MMACHC	0.034740935	0.894692483	0.274409394	0.286481799
SLC5A11	0.020166938	0.93876353	0.628478992	0.006891329
PRODH2	0.614244499	0.008707818	0.582307316	0.014180876
CTSB	0.398323238	0.113286783	0.766599498	0.000331031
FAM21C	-0.166629923	0.522696143	-0.538052202	0.025884914
EGOT	0.095522686	0.715345599	0.570239526	0.016843268
NEBL-AS1	-0.083529451	0.749934875	-0.400332818	0.111312183
LGMN	0.477034252	0.052841235	0.798956444	0.000119655
IL2RB	0.288226616	0.261910402	-0.158916912	0.542382452
ANKRD31	-0.588924124	0.012869028	-0.310142405	0.225702413
PTGS1	0.066811849	0.798897909	0.682959693	0.002514222
DOPEY2	0.184117565	0.479319976	0.333552436	0.190748116
MSRA	0.462701169	0.061451766	0.889571731	1.77E-06
C15orf61	-0.134367652	0.607143716	0.463294481	0.061075959
METTL7A	0.151945472	0.560455487	0.441786106	0.075823966
KBTBD3	0.079487628	0.761697642	0.255429483	0.32242504
SOX17	0.243514545	0.346272504	0.485157302	0.048380813
ZNF302	-0.384424644	0.127623193	-0.533890555	0.027284723
CGN	0.056544081	0.829337977	0.607310875	0.009721332
RPS23	0.04391893	0.867079641	-0.140740585	0.590037262
IFI44L	0.25282483	0.327554169	0.533586414	0.027389269
MEF2C-AS1	0.016902256	0.948663212	-0.504058769	0.039100878
PCK2	0.384260898	0.127799273	0.914611545	2.76E-07

ZNF195	-0.697849605	0.001840244	-0.534640765	0.027028163
TMEM116	-0.345878815	0.173865507	-0.365990881	0.148521785
SERPINA6	0.059883826	0.819409542	0.698834581	0.001801501
ALDH4A1	0.57884667	0.01490777	0.797733933	0.000124744
GSTO2	0.001036224	0.996850764	-0.49916369	0.041362136
CKB	-0.234839539	0.364249892	-0.175634676	0.500137959
KLHL29	-0.403406727	0.108339018	-0.534446295	0.027094489
EPN2-AS1	-0.37335978	0.139904926	-0.363336723	0.151712375
KL	0.419118119	0.094017271	0.734054029	0.000794359
KHK	0.340460253	0.181159029	0.88365349	2.57E-06
C7orf13	-0.153653436	0.556003634	-0.536163244	0.026513228
EGFL6	0.149921153	0.565751861	0.461559142	0.062179949
EAF2	0.275448234	0.284587563	0.805147498	9.65E-05
CTSZ	-0.244355793	0.344556588	-0.383720701	0.12838136
CYP26B1	-0.068080161	0.795155872	0.199504288	0.442672203
MGC16275	0.335502934	0.188007343	0.529462163	0.028837666
FGFBP3	0.198391692	0.445272884	0.492301835	0.044697001
STK4-AS1	0.028304134	0.914128478	0.097808806	0.708809049
ALDH1L1	0.210175418	0.418128265	0.883772748	2.55E-06
LOC102723903	0.304824185	0.234177649	0.048910728	0.852120178
ABAT	0.29556492	0.249408989	0.865369903	7.25E-06
PRR15	0.121931957	0.641078793	0.596042619	0.011566871
FLVCR1-AS1	0.002223447	0.993242675	0.383492602	0.128627699
SUPT3H	-0.40620304	0.105683612	-0.455054111	0.066450086

COMMD9	0.400054826	0.111583876	0.631436869	0.006555179
ZNF112	-0.600674878	0.010777252	-0.310427532	0.225253646
SLC45A1	0.192476752	0.459229027	-0.575285552	0.015686084
ZFP69B	0.031135424	0.905573068	-0.382603323	0.129591234
MYADM	0.100984304	0.699761429	-0.46813262	0.058074747
HPN	0.422220332	0.091358656	0.943386157	1.38E-08
NR1I3	0.218890867	0.398628662	0.589013484	0.012851994
DCUN1D3	-0.362264328	0.153014665	-0.337529719	0.185187076
RTKN	0.195357939	0.452403706	0.737550551	0.000727408
LOC101927244	-0.159638539	0.540526677	0.440065257	0.077106944
LOC100507557	-0.265242422	0.303526318	-0.252748859	0.327704479
C21orf62	-0.298793306	0.244029655	-0.268859959	0.296729493
ATAD2B	-0.578860563	0.014904794	-0.700255211	0.001746803
PC	0.329815138	0.1960729	0.504649283	0.038834576
BANK1	0.00156979	0.995229192	0.091098365	0.728048674
PNPLA3	0.029431312	0.910721327	0.771072511	0.000290389
TANGO2	-0.14097597	0.589409266	-0.434340676	0.081488881
RBP5	0.308241693	0.228708585	0.904690919	6.12E-07
WFDC1	-0.23321773	0.367667702	-0.301109126	0.240216211
KLB	-0.237084211	0.35954894	-0.107960916	0.680018708
LOC401261	-0.188623911	0.468436197	-0.521115133	0.031948936
SNHG17	-0.617773402	0.008225436	-0.525123767	0.030424186
GDPD3	0.556456108	0.020347735	0.441208547	0.076252814
LOC102723493	-0.0417912	0.873469319	0.517830449	0.033241428

KIRREL2	-0.015067995	0.954228554	-0.465405505	0.05975263
IFI27	0.541868801	0.024650596	0.43709181	0.079360996
ZNF709	-0.005497706	0.983292715	0.523702157	0.030958378
DOHH	-0.093075433	0.722363638	-0.051684677	0.843827423
ZNF586	-0.410572389	0.101627479	-0.44005115	0.077117526
CEP57L1	0.266380337	0.301378434	0.525032948	0.030458099
IFIT3	0.487189744	0.047310445	0.602212179	0.010524889
CA10	0.109051659	0.676949388	0.186410864	0.47376579
CTSH	0.08010601	0.759894718	0.622441354	0.007620432
LAS1L	-0.081175549	0.75677919	-0.506804807	0.037874192
CLYBL	-0.09884907	0.70584101	0.466941548	0.058803199
LY6G5B	-0.414064888	0.098466087	-0.377271749	0.135473323
MX2	0.272027943	0.290852874	0.423933701	0.089913698
LONRF2	-0.281552998	0.273609877	-0.649320028	0.004792484
FHIT	0.29026233	0.258404253	0.513827743	0.034870124
SLC6A13	0.245491889	0.342246994	0.842872806	2.16E-05
STT3A	-0.286354125	0.265161289	-0.462172454	0.061788097
RARS	-0.462646003	0.061486795	-0.477134046	0.052784637
PITPNC1	-0.152519252	0.55895819	0.566510867	0.017740577
MX1	0.332422835	0.192347371	0.463246886	0.061106043
IRX4	0.39754188	0.114061169	0.496019556	0.042865931
A1CF	0.26003752	0.313466591	0.745116363	0.000598427
BTAF1	0.025478268	0.922676395	-0.471999564	0.055755959
ADIRF	0.125697855	0.630727185	-0.339497087	0.182476427

CCDC58	-0.040474765	0.87742637	-0.01266505	0.961522329
SMIM2-AS1	-0.23844642	0.356712836	0.283864408	0.269522137
GPX3	0.554834967	0.020794664	0.823119247	4.94E-05
ATP13A3	0.439515893	0.077519836	0.530467647	0.028479235
NR1H2	-0.170399637	0.513195879	-0.247848103	0.337485358
SLC23A1	0.07176956	0.784294896	0.700459864	0.001739036
NEURL1B	0.061308062	0.815183345	-0.432592597	0.082862291
FLJ20021	-0.112571242	0.667078328	-0.207493295	0.42422859
CLDN16	0.048631524	0.852955689	0.609399032	0.009406695
DDIT4L	-0.132530447	0.612111748	-0.537376175	0.026108439
DPEP1	0.580535692	0.01454942	0.703939351	0.001611274
ZNF600	-0.585338301	0.013567462	-0.442486617	0.07530619
KCNS3	0.247884441	0.337412223	-0.360602352	0.155047936
RGS2	-0.584624406	0.013710018	-0.497102571	0.042343347
ACIN1	-0.096505611	0.712532867	-0.331275077	0.193981349
APRT	0.032422809	0.901686123	0.33879948	0.18343456
SEC24B-AS1	-0.366198766	0.148273837	-0.158323368	0.543910974
RCC2	0.258442986	0.316549746	0.284281631	0.268788298
SLC28A2	0.17194538	0.509323816	0.501633947	0.040208959
DEPDC7	0.426189263	0.088036685	0.737065248	0.000736411
ENOX1	0.146491955	0.574772687	0.463788402	0.060764409
PCDHB7	-0.324537541	0.203756869	-0.394183317	0.117432249
LOC101928227	-0.393016159	0.118619975	-0.476186088	0.053324099
HAUS1	-0.094050603	0.719564581	-0.351804681	0.16611699

HIST1H4D	0.310644618	0.224912353	0.373301406	0.1399718
SPAG5	0.412338153	0.100020207	0.502003054	0.040038767
GBP2	0.240385335	0.352697895	0.333614789	0.190660094
CYP4Z1	-0.053645082	0.837976057	-0.458471526	0.064180659
EIF2AK4	0.337430785	0.185324089	0.394921396	0.11668549
RFTN2	-0.364400285	0.150428295	-0.038286766	0.884009274
CA11	-0.319242197	0.211661285	-0.580658611	0.014523609
KCNE3	-0.124712457	0.633429655	0.398603658	0.113009773
MTA2	0.193548893	0.456683187	0.520594935	0.032151018
TMEM37	-0.006643542	0.979811181	0.693412537	0.002023344
DPY19L2	-0.068450401	0.794064305	0.569798423	0.016947522
DCXR	-0.063921583	0.807440726	0.35100148	0.167153362
TLN2	0.309452946	0.226789928	0.769878226	0.000300808
HSPC324	0.55026709	0.022095209	0.592702481	0.01216418
TYMS	0.242055617	0.349259848	0.315913833	0.216729734
XAB2	0.146455164	0.5748698	0.452810575	0.067971782
DRAP1	0.097732908	0.709025755	-0.276180274	0.283257321
SLC5A9	0.210394728	0.417631516	0.551341323	0.021783819
SNORA25	-0.080340764	0.759210587	-0.625635633	0.007227373
HNF4G	0.20699539	0.42536615	0.668390342	0.003356695
PQLC3	-0.244954264	0.343338835	0.32372871	0.204951584
SYT13	-0.253734541	0.325757388	0.581948229	0.014254974
ATG4A	0.091327405	0.727389381	0.117937248	0.652128076
HSPA12B	0.528323704	0.029247681	0.651403846	0.004614897

ATP23	0.097544743	0.709563097	0.343221037	0.177417973
ACY3	0.015271071	0.953612296	0.473814757	0.05469161
LOC284578	0.146237368	0.575444825	0.669723704	0.003271155
CAT	0.322588037	0.206644193	0.416372901	0.096415855
TRHDE	0.323328369	0.205544606	0.634296954	0.006242798
ALPK1	0.631813531	0.006513336	0.289518166	0.259682544
LOC100288152	-0.386316046	0.125601554	-0.480031011	0.051161316
LOC102723665	0.100440362	0.701308557	0.598853375	0.011082467
HOXC10	-0.011207662	0.965947452	0.16343371	0.530813917
C1orf115	0.330119698	0.195635363	-0.352579068	0.165121902
KIAA0753	-0.14039123	0.590969838	-0.265880718	0.302320376
TFEC	0.184743257	0.477801452	0.753746628	0.000475074
LOC100505555	-0.056433181	0.82966809	-0.286385926	0.265105872
PDDC1	-0.2916019	0.256113062	-0.299613736	0.24267433
DGCR8	-0.186795448	0.472837473	-0.298227745	0.244966712
WIPF3	-0.436174177	0.0800662	-0.62642451	0.00713285
LRRC59	-0.257979803	0.317448675	-0.440405621	0.076851939
RAB11FIP3	0.628789495	0.006855405	0.757451411	0.000429043
CTSC	0.285096146	0.267359221	0.462521677	0.061565793
MAP2	0.350489582	0.16781613	0.31697073	0.215111891
MACROD2	0.339048998	0.183091476	-0.369761178	0.144068815
NAPB	-0.349979532	0.16847826	-0.728699877	0.000906713
PCED1B	-0.303632241	0.23610447	-0.568749226	0.017197535
RAP1GAP	0.027756048	0.915785708	0.543443214	0.024154914

SACS	-0.338388339	0.184000806	-0.569725724	0.016964753
INTU	-0.158509825	0.543430595	-0.318405498	0.212928128
AMDHD1	0.225975229	0.38314738	0.583127798	0.014012709
NEK4	-0.62371092	0.007462211	-0.550008883	0.022170569
MYH8	-0.300906374	0.240548569	0.377037004	0.135736477
LARGE1	-0.340262267	0.181429312	-0.698513619	0.001814051
REEP6	0.222008826	0.391773967	0.739772818	0.00068734
ZNF274	-0.33479013	0.189005915	-0.714316273	0.001275199
SDHAF4	-0.421539605	0.091937355	-0.630955014	0.006609023
F11	0.463657862	0.060846634	0.569674495	0.016976904
SPTLC3	0.293525612	0.25284494	0.422252819	0.091331105
GBP1	0.385065445	0.126935748	0.731474433	0.000846956
NXT1	-0.287090469	0.263879945	-0.428110463	0.08646036
SLC51A	0.289240547	0.260160428	0.525143363	0.030416872
EHD4	0.139816582	0.592505136	-0.274654694	0.28603383
PRSS8	0.243128222	0.347062126	0.555913766	0.02049641
AGA	0.081802941	0.75495326	0.497772395	0.042022561
SIGIRR	0.392438053	0.119211379	0.346751828	0.17270907
PIGL	-0.483321862	0.049362976	-0.578375471	0.015008971
EIF2AK3	-0.024674189	0.925110144	-0.44625732	0.072563398
SLC30A1	-0.105343722	0.687402735	-0.182287259	0.48377555
ABHD18	-0.272873875	0.289295619	-0.445207984	0.073319212
GRAMD1C	0.243609253	0.346079081	0.799474651	0.000117551
PCDHB6	-0.122836836	0.638585678	-0.646512943	0.005040401

FLVCR1	-0.279950063	0.276466832	-0.596737406	0.011445599
REV3L	-0.073809482	0.778305694	-0.085992709	0.742791439
ELMOD3	-0.025981745	0.921152824	-0.387331786	0.124525143
PRLR	0.129212985	0.621123072	0.678939913	0.002727136
TMEM220	-0.523537527	0.031020703	-0.207452023	0.424322824
WDR53	0.002533416	0.992300665	-0.46119065	0.062416265
GPR158	0.005347166	0.983750141	-0.256275573	0.320769063
FZD5	0.13630219	0.601930005	0.419590835	0.093608608
CLCN4	0.017059115	0.948187389	0.266880979	0.300436321
ZNF212	-0.22280146	0.390041677	-0.454130124	0.067073715
LTK	0.157513955	0.545998498	0.273504919	0.288137227
RNASE1	0.396882133	0.114717926	0.547054813	0.023047049
MAPK8IP1	-0.00138393	0.995794039	-0.299728632	0.242484906
ENO2	0.468920601	0.057596523	0.627355377	0.007022592
PCDHB4	0.064390729	0.806052636	-0.405507508	0.106339733
C6orf1	0.0823803	0.753274031	-0.529875317	0.028689968
PHGDH	0.194782879	0.453761863	0.462976929	0.061276885
ZNF16	-0.71119077	0.00136969	-0.446413871	0.072451128
INVS	0.310342014	0.225388184	0.399232377	0.112390434
CCL13	0.466683532	0.058961891	0.494073936	0.04381698
GPD1	0.569304097	0.017064957	0.689973986	0.002175278
FANK1	0.132772888	0.611455235	-0.247663522	0.337856992
LOC100506730	0.074915583	0.775063088	0.235020729	0.363869161
ZNF528	-0.221524473	0.392834569	-0.014810507	0.955009966

KYAT1	-0.320007504	0.210506818	-0.527537286	0.029533519
GPER1	0.227827042	0.37915585	0.535176405	0.026846126
LOC100996273	0.015853936	0.951843668	-0.31220282	0.222472325
SULF2	-0.135864046	0.60310925	-0.467977368	0.058169316
LOC102723704	-0.222574867	0.390536466	-0.560564884	0.019248517
TTLL5	-0.294123585	0.251834395	-0.341862884	0.179251871
C1orf50	-0.283255483	0.270595362	-0.5232395	0.031133772
PPP1R16B	0.178621063	0.492760423	0.618029567	0.008191269
LOC100506473	0.159484067	0.540923685	0.417758912	0.095199439
ZSWIM6	-0.062828432	0.810677198	-0.468678397	0.057743203
SIGLEC16	0.213618146	0.410366316	0.447526775	0.071656684
DBR1	-0.30383944	0.235768807	-0.422698563	0.090953674
TPK1	0.394761443	0.11684704	0.362020489	0.153311837
CATSPER1	0.011487138	0.96509879	0.389977054	0.121752139
ADAMTS9-AS1	0.215874897	0.405320204	-0.188181489	0.46949928
C1RL-AS1	0.098956321	0.705535231	0.445127268	0.073377588
COQ3	0.489086856	0.046327516	0.152148714	0.559924922
NUP205	-0.217171872	0.402435267	0.235821266	0.362189673
DCP1B	0.220180726	0.395785157	-0.37665102	0.136169939
SPRR2A	-0.104200707	0.690636032	-0.151737409	0.560998863
MSH3	0.079746312	0.760943295	0.479063236	0.051699393
LOC101927151	-0.439640158	0.0774263	-0.499982753	0.040977036
GPD1L	-0.381205514	0.131115883	-0.755733383	0.000449904
PSMD11	0.136480375	0.601450696	-0.151263457	0.562237487

ENAM	0.288559942	0.261334302	0.598465204	0.011148389
DNTTIP1	-0.313152243	0.220993954	-0.323176526	0.205769821
CAND2	-0.425444774	0.088653071	-0.422917644	0.090768581
MYLK4	0.32688258	0.20031874	0.474067014	0.054544906
ZNF426	-0.226114681	0.382845996	-0.654525243	0.004358877
TNNC2	-0.375498393	0.137470039	-0.314171922	0.219413226
LOC646762	-0.240975619	0.351480691	-0.515359723	0.034239721
TCFL5	0.279355581	0.277531006	0.483795928	0.049107878
APCDD1	-0.007676564	0.976672714	-0.431643167	0.083615224
SLC20A1	-0.055226971	0.833260307	-0.418815718	0.094279368
POLR2H	-0.60027199	0.010844178	-0.252539401	0.328119106
RASA2	-0.25704566	0.319266178	-0.291051603	0.257052752
USP35	-0.054328388	0.835938415	-0.245246274	0.342745556
PDCD4-AS1	-0.068480183	0.793976515	0.656699051	0.004187469
CRYL1	0.230864971	0.372657581	0.741209853	0.000662418
POLR1A	-0.226749879	0.381474847	-0.432885555	0.08263096
MLH3	0.013696876	0.958389993	-0.457443236	0.064857408
PIP5K1B	-0.410013122	0.102140363	-0.363315413	0.15173818
ATP6V0E2	0.540927708	0.024950626	0.521598168	0.031762164
ESRP1	-0.475982141	0.053440698	0.482407165	0.049857991
MED29	-0.293292093	0.253240263	-0.544987119	0.023676377
SH3D21	-0.27358253	0.287994954	-0.329609873	0.196368151
NNT-AS1	-0.259303441	0.314883783	-0.515199319	0.034305315
LRIF1	-0.215845021	0.40538679	-0.518069458	0.033146052

SNRPB	0.200788082	0.43968105	-0.281036081	0.27452921
PCCA	0.259818352	0.313889317	0.621768047	0.007705427
PCDH20	0.101997557	0.696882423	0.361791844	0.153590848
TMEM161B	-0.239812172	0.353882077	-0.374379884	0.138739824
RBM26-AS1	-0.208460841	0.422022613	-0.539152907	0.025524139
NPY6R	0.358914395	0.157131713	0.676738104	0.002849852
PTPDC1	-0.091538162	0.726782871	-0.644073792	0.005264139
PCDHAC1	-0.35077386	0.167447849	-0.573060379	0.016188405
SQLE	0.029932945	0.909205494	-0.166396306	0.523287542
DUBR	-0.140943365	0.589496237	-0.445162324	0.07335223
MCOLN1	0.532081159	0.027911241	0.331303002	0.193941486
SEC24D	0.042829966	0.870348905	0.388219657	0.123589529
SLC37A4	-0.020187713	0.938700559	0.608233377	0.009581315
SYT11	0.616096204	0.008451961	0.428898219	0.085819949
SLC2A5	0.069881209	0.789849313	0.692536614	0.002061195
TMEM45A	0.581869888	0.01427118	0.360344122	0.155365495
FOLR1	0.235201584	0.363489354	0.446803564	0.072172216
TTF2	-0.127900911	0.62470129	0.028122343	0.914678117
ANXA13	0.776204415	0.000248978	0.710875779	0.001379525
RTN4IP1	-0.073505439	0.779197622	-0.14132881	0.588468417
C15orf57	-0.356690886	0.159905519	-0.690550974	0.002149152
SRFBP1	-0.158301513	0.543967293	-0.335601637	0.187869345
ATP6V1B2	0.456067363	0.065771134	0.614064064	0.008733076
FOXM1	-0.014264033	0.956668503	0.564190902	0.018317503

TRANK1	0.011364263	0.965471912	-0.19222184	0.45983537
ZNF311	0.059453585	0.820687145	-0.369218804	0.144703682
CDHR5	0.278294127	0.279437304	0.807070858	9.01E-05
TMEM178B	0.166683004	0.52256181	0.244225968	0.344821077
SERINC5	-0.341645049	0.179547181	-0.486697053	0.047568265
TNFSF10	0.263084768	0.307623958	0.442231651	0.075494346
SLC39A5	0.194116522	0.455338214	0.719988388	0.001117433
CKS2	0.223364573	0.388813538	0.27818259	0.279638078
LMBRD2	0.126052576	0.629755437	0.553373196	0.021204182
PAXIP1-AS1	0.133708335	0.608924735	-0.241959594	0.349456979
ELOVL6	-0.249476082	0.334217803	-0.322517239	0.206749546
IGHD	-0.081313548	0.75637746	0.279711149	0.276894209
NMT2	-0.267221405	0.299796709	-0.444303606	0.073975226
NAP1L3	-0.114501953	0.661685164	-0.522432523	0.031441523
DNAJC22	0.257790956	0.317815611	0.796392106	0.000130538
FBXL2	-0.030875449	0.906358247	-0.555347579	0.020652524
LRP4	0.338659768	0.183626849	0.643746328	0.005294777
PRSS54	-0.298934798	0.243795577	-0.631418423	0.006557234
HDAC4	-0.205038209	0.429853123	-0.480711887	0.050785275
HS6ST2	-0.040990646	0.875875361	0.593113263	0.012089431
MIR17HG	-0.423002491	0.09069697	-0.698696508	0.001806891
ZNF606	-0.406474606	0.105428216	0.063186573	0.809616534
BMPER	0.284188654	0.268951725	0.640047993	0.005650896
MFSD4A	0.24899195	0.335187602	0.744983439	0.000600517

SLC22A4	-0.180248407	0.488762379	0.598601726	0.011125168
NAIF1	0.059118118	0.821683614	0.293422893	0.253018785
ZMAT3	0.138150159	0.596966579	-0.530677941	0.028404706
SLC16A4	0.587539706	0.013135227	0.722100081	0.001062978
KIF18B	0.302429871	0.238058289	0.368225183	0.14587172
PGAP3	0.11167671	0.66958233	0.414548846	0.098033623
HSPBAP1	-0.598467082	0.011148069	-0.568944567	0.017150769
NNT	-0.139556182	0.59320139	0.485086633	0.048418355
TBC1D17	0.349770451	0.168750189	-0.047481566	0.856398456
PRKCSH	0.033401026	0.89873404	-0.409447271	0.10266116
MCCC2	0.119945911	0.646563427	0.462952149	0.061292585
RIN1	-0.137896641	0.597646513	-0.499781287	0.041071506
GTF3C5	0.367888907	0.146268484	0.413822751	0.098682972
SOWAHC	-0.250463541	0.332244788	-0.601352218	0.010665474
SLC22A7	0.316425726	0.215945179	0.78794596	0.000172445
SFT2D2	0.181801957	0.484960303	0.500208911	0.040871183
IFRD1	-0.227799857	0.379214281	-0.694660532	0.001970399
AMN	0.065892376	0.801613322	0.656778604	0.004181302
FAM99B	0.449632134	0.070171277	0.522465677	0.031428834
FLNA	0.283579681	0.270023641	-0.392773657	0.118867804
LOC389332	0.409838561	0.102300824	0.777578508	0.000238771
ASTE1	0.120424823	0.645239283	-0.429146468	0.085618845
OLAH	-0.097111023	0.710802162	-0.844055416	2.05E-05
ZNF541	0.430600045	0.084448161	0.391400813	0.12027766

LNX1	0.166947877	0.521891737	0.229279372	0.376041498
RPARP-AS1	-0.070713078	0.787401248	0.453528612	0.067482005
LOC100128288	-0.239699417	0.354115297	-0.39538782	0.116215307
PROSER3	0.078719827	0.763937817	-0.25422811	0.324784941
HMG20B	-0.105390631	0.687270153	0.321967244	0.207569175
LCAT	-0.457940423	0.064529539	-0.586258015	0.013385536
MELTF	-0.097946635	0.708415571	-0.519657178	0.032517783
ANKRD19P	0.146007592	0.576051743	0.280669308	0.275182657
LBX2-AS1	0.154129384	0.554765824	0.606634802	0.009824977
LINC00685	-0.06065458	0.817121859	-0.486965367	0.047427728
SNHG9	0.01636228	0.950301334	-0.426969646	0.087393908
KIAA1024	-0.327501173	0.199418165	-0.428758369	0.085933389
GGH	0.351896923	0.165998247	0.891925785	1.51E-06
PRKCD	-0.08046294	0.758854603	0.031381858	0.904828863
PCCB	0.045312853	0.862897811	0.420855058	0.092521954
GATB	0.354330844	0.162885712	0.561738648	0.018943185
MACROD1	0.627365187	0.007021437	0.366538982	0.147868668
GIPC2	0.236316237	0.361153427	0.86792152	6.33E-06
ZMIZ2	0.115997486	0.657518372	-0.394455904	0.117156066
RFC2	-0.249073801	0.335023525	-0.344999938	0.17503493
ADAMDEC1	-0.12923947	0.621050925	0.279268482	0.277687131
LOC101926963	0.198068236	0.446030421	0.59834703	0.011168519
KLHDC9	-0.145696949	0.576872689	-0.541993479	0.024611058
ALLC	0.209131291	0.420497548	0.30194465	0.238849646

ZNF26	-0.581122061	0.014426614	-0.604140264	0.01021504
GABPB1	-0.045878587	0.86120156	-0.248094723	0.336989184
ALPL	0.399587245	0.11204192	0.791635198	0.000152933
DDHD2	-0.410593742	0.101607934	-0.473925872	0.054626953
CDKN2AIP	-0.406984939	0.104949456	-0.409247734	0.102845259
DDAH1	0.298691863	0.244197567	0.826182151	4.37E-05
HSPA1L	-0.193729866	0.456254162	0.33774236	0.184892821
SLC15A1	-0.229173345	0.376268382	0.159348926	0.541271119
CTU2	0.147856407	0.571176073	-0.16460076	0.527843203
DCP1A	-0.195088017	0.453040942	-0.457091059	0.065090393
TCAM1P	-0.27850618	0.279055837	0.217207139	0.402356974
NTHL1	0.035053723	0.893749371	0.374000247	0.139172638
CRYBB2	-0.553584947	0.021144474	-0.568835584	0.017176848
ZKSCAN7	0.164543564	0.527988616	0.35936724	0.156570823
GAL3ST4	0.200347352	0.440706746	0.28515924	0.267248716
PHTF1	-0.321216215	0.2086918	-0.419379444	0.093791198
ACOT4	0.325153808	0.202849642	0.625470663	0.007247266
NR2F1-AS1	0.19424854	0.455025691	-0.435976748	0.080218518
GPR137B	0.036885278	0.888229647	0.383531991	0.128585138
MAST3	-0.007306135	0.977798094	0.379621934	0.132858152
TMEM139	0.20125669	0.438591819	0.377398221	0.135331692
CA12	0.0847318	0.746445628	0.639852603	0.005670234
VDR	0.193074761	0.457808155	0.824701547	4.64E-05
GEMIN5	0.061614836	0.814273667	0.304462217	0.234761725

PEPD	0.542234887	0.024534642	0.788680381	0.000168403
ZNF76	-0.038662711	0.882877668	-0.329893307	0.19596054
TAGLN2	0.176368932	0.49831921	-0.381902755	0.130353825
HIST1H1E	-0.155406923	0.551449278	-0.190434475	0.464098119
NAGK	0.443633471	0.074464089	0.486167067	0.047846779
LLPH	-0.182580812	0.483059592	-0.258567829	0.316307711
NOP58	-0.478743071	0.051878332	-0.507752051	0.037457914
LOC102723335	-0.287749978	0.262735556	-0.372165747	0.141277219
GMPPB	0.287556344	0.263071234	0.388111486	0.123703253
SNRNP25	-0.004390469	0.986657242	-0.451360432	0.068968902
DHTKD1	0.42224124	0.091340924	0.553042421	0.021297715
CLDND2	-0.418573741	0.094489471	-0.475583758	0.053669006
ZNF69	0.026584979	0.91932772	0.558109611	0.019899639
LOC148709	-0.010394044	0.968418286	0.462044593	0.061869637
SCN7A	-0.097865749	0.708646479	-0.113985106	0.663127374
ZNF19	-0.617425244	0.008272055	-0.275085142	0.285248766
SYTL1	0.051646936	0.843940149	-0.261495397	0.310663228
SLC25A11	0.054921779	0.834169698	0.514578867	0.034559942
HIBCH	0.416459907	0.096339169	0.69682085	0.001881435
VASH2	-0.213134161	0.411452844	-0.229399149	0.375785285
DNAJC15	0.121717878	0.641669151	0.181248871	0.486312249
POLE3	0.597029361	0.011394941	0.387572315	0.124271193
ARHGEF10	0.091708975	0.726291428	-0.14901724	0.568123767
RPA3	-0.451163048	0.069105449	-0.240472237	0.352518547

NUAK2	0.158898659	0.542429431	0.293698248	0.252552935
MT1F	0.335637695	0.187818948	0.575549121	0.015627406
PLBD2	-0.095483403	0.715458084	-0.421813443	0.091704244
CRYZ	0.33008956	0.195678631	0.682419622	0.002542011
NOP9	-0.017321277	0.947392167	-0.342184098	0.178817005
PROZ	0.180867465	0.487245607	0.578762426	0.014925824
SCLT1	0.069423368	0.791197468	0.380373808	0.132028944
MUC15	-0.169511703	0.51542633	0.421489157	0.091980346
IDH2	0.533344061	0.027472796	0.761172082	0.000386613
VWA7	0.193476754	0.456854261	-0.206663991	0.426124177
GTSE1-AS1	-0.180151007	0.489001228	-0.393938809	0.117680371
MDH1	0.217127606	0.402533549	0.302290022	0.238286201
BCHE	0.601984916	0.010561897	0.382011107	0.130235676
DYRK2	-0.247040534	0.339113047	-0.489771537	0.045976576
ZNF713	-0.3788397	0.133724666	-0.551928523	0.021615055
TEF	-0.178192392	0.493816182	-0.398745393	0.112869943
RAB11FIP5	0.494293419	0.043708903	0.585677072	0.013500225
FANCL	-0.317966193	0.213595235	-0.52013432	0.032330771
PVALB	0.547939594	0.022781758	0.690601486	0.002146877
MRC2	0.12572543	0.630651625	-0.16857773	0.517777284
HRH1	-0.379867033	0.132587448	-0.590510894	0.012569188
SFXN2	0.092481518	0.724070007	0.497715925	0.042049533
ICA1L	-0.497926958	0.041948801	-0.529432204	0.028848399
UBXN7-AS1	0.037217621	0.887228584	-0.495832652	0.042956609

USP46-AS1	-0.235473843	0.362918014	-0.490406788	0.045652765
ACO1	0.188501456	0.468730322	0.675563657	0.002917127
SLC25A5-AS1	0.299332293	0.243138731	0.700869376	0.001723581
AK1	0.238316576	0.356982625	-0.35423497	0.163007565
PPP3CC	-0.450183263	0.069786198	-0.546970516	0.023072449
WDPCP	-0.467570918	0.05841744	-0.506965721	0.037803229
RIOK1	0.423108239	0.090607776	-0.196406722	0.449932036
AKAP12	-0.179761739	0.489956376	-0.22694615	0.381051721
PLIN2	0.234582312	0.364790783	0.461625076	0.062137735
C8orf48	-0.341252724	0.180079856	-0.529650354	0.028770318
TREH	0.472596023	0.055404534	0.602089421	0.010544866
C1orf54	0.289757587	0.25927085	0.658762187	0.00402988
LAMP3	-0.03074314	0.906757881	0.314558882	0.21881526
TTYH3	0.333259005	0.191162701	0.389391212	0.122362509
TSKU	0.47927741	0.05157995	0.37839391	0.134220234
FAM209A	0.043320046	0.86887735	-0.444297671	0.073979546
ACOT9	-0.301784198	0.239111696	-0.370043384	0.143739242
KEL	0.069269829	0.791649701	-0.275157861	0.285116268
FAM90A1	-0.028822772	0.912560596	-0.572518919	0.016312527
ITGA3	-0.148823073	0.568633825	-0.49817252	0.041831816
TOPBP1	-0.268535979	0.297334456	-0.30458374	0.234565532
SDR42E1	-0.281010329	0.274575059	-0.402822386	0.108899829
ARL13B	-0.006032265	0.981668459	-0.446687741	0.072255031
TXNDC9	-0.377751325	0.134936807	-0.507722291	0.037470939

IFITM2	-0.081786149	0.755002116	-0.338437251	0.183933381
PPP4R1	-0.158108529	0.544464708	-0.331683875	0.19339833
HOGA1	0.256170141	0.320975145	0.70575191	0.001547838
GPT2	0.494505352	0.043604735	0.801243217	0.000110603
DLST	-0.276543425	0.282598816	-0.186955662	0.472451011
PHYHIPL	0.129714831	0.619756578	0.490038782	0.045840141
ACTRT3	0.427110406	0.08727833	0.481356828	0.050430995
ETV7	0.390570541	0.12113598	0.564373287	0.018271623
LINC00662	-0.117211417	0.654143158	-0.498653828	0.04160324
ERBB4	-0.262376966	0.308975266	0.08978516	0.731832224
TMEM101	0.456620175	0.065402874	0.368380832	0.145688324
FKBP1A	0.249660617	0.333848576	0.53640258	0.026432973
CASC1	-0.464725471	0.060176574	-0.386073572	0.125859468
SLC28A1	0.313215889	0.220895075	0.580727906	0.014509073
ERVK13-1	-0.567563248	0.017483613	-0.300248936	0.241628262
BCS1L	-0.047400784	0.856640396	-0.345376078	0.174533802
ACBD6	-0.208349753	0.422275584	-0.432884934	0.08263145
SUSD3	0.167481931	0.520541896	0.598766654	0.011097168
NOS3	0.183754994	0.480200997	-0.073329828	0.779712906
CMTM7	0.017886618	0.945677467	-0.149484136	0.566898081
CACHD1	-0.204272095	0.431616173	0.277939881	0.280075275
RAB17	0.384501701	0.12754039	0.701289849	0.00170783
FUK	0.092901322	0.722863747	-0.306852018	0.230922576
FZD2	-0.259459778	0.314581648	-0.467081314	0.058717369

C1orf131	0.072662534	0.781671697	0.307185138	0.23039062
LMBR1L	-0.261684436	0.310300811	-0.472197743	0.055639011
LOC101928047	0.331638179	0.193463444	0.573224619	0.016150902
CDH17	-0.110785265	0.672080967	0.195728023	0.451530743
ACACA	-0.038732259	0.882668349	-0.419774408	0.093450252
METTL21A	-0.371186647	0.142409381	-0.546122106	0.023329301
NCEH1	0.354024245	0.163275609	0.470245944	0.056798792
WARS	0.417188183	0.095698992	0.7040218	0.001608342
MRE11A	0.031316511	0.905026197	-0.59770537	0.011278329
TAF4B	-0.247320828	0.338547592	-0.559279968	0.019587157
GNPDA1	0.287858729	0.262547145	0.579313804	0.014807973
VWCE	-0.185009402	0.477156244	-0.456590993	0.065422276
KLHDC1	-0.217101914	0.402590596	-0.353087156	0.164471196
SYBU	-0.154663084	0.553379253	-0.523761739	0.030935845
ASNS	-0.620243204	0.007900724	-0.567750043	0.017438309
CYP51A1	-0.294997726	0.250361682	-0.140414334	0.590908145
ACAT1	0.269328601	0.295855711	0.789694789	0.000162951
SMPDL3A	0.435749542	0.08039407	0.565218466	0.018060186
FOXJ2	-0.414394685	0.098171233	-0.455413926	0.066208395
SORCS2	-0.259603253	0.31430452	-0.584331248	0.013768899
NAF1	-0.17794118	0.494435389	-0.357349943	0.15907992
OSMR	-0.4052312	0.106601185	-0.640683895	0.005588328
POLR2J	-0.103403674	0.692893632	-0.343147067	0.177517531
RHOC	0.619021084	0.008060092	0.43511082	0.080889079

MRPL24	-0.326527946	0.200836228	-0.160787804	0.537577047
CHN1	-0.242454884	0.348440844	-0.436890104	0.079515619
CALML3	0.320920295	0.209135215	0.308019494	0.229061674
ICA1	0.376573386	0.136257238	0.45085616	0.069318146
CMC4	-0.490074877	0.045821737	-0.684861633	0.002418326
TRIM39	-0.202080097	0.436681266	-0.348681925	0.170170679
RABAC1	0.11218685	0.668153924	-0.46942791	0.057290193
INTS1	-0.225438944	0.384307616	-0.480066308	0.051141771
PMEL	0.07766174	0.767027843	0.000587527	0.998214415
FLRT1	0.253698766	0.32582794	0.394200038	0.117415294
WDR12	-0.25091232	0.331350328	0.309101357	0.227345791
SMIM10	-0.023213887	0.929531712	-0.019292874	0.941413233
LOC101929648	0.08158771	0.755579521	0.134377155	0.607118059
C5orf56	0.061395469	0.814924134	-0.500388555	0.040787249
NRTN	0.009973538	0.969695407	0.254983794	0.323299351
SULT1C4	-0.41275629	0.099642274	-0.169291205	0.515980908
DNAAF2	0.361780448	0.153604762	-0.314487802	0.21892502
KCNN3	0.486674539	0.047580071	0.473982628	0.05459395
NOL8	-0.307008511	0.230672576	-0.642588054	0.005404304
LOC101929004	-0.144305767	0.580555257	-0.340656148	0.180891863
MAK	-0.539407016	0.025441406	-0.444967335	0.073493356
SCPEP1	0.07902754	0.763039802	0.445651912	0.07299876
RAB8A	0.234361188	0.365256116	0.267636525	0.299017861
NUDT14	0.308808913	0.22780881	0.394746939	0.116861697

TADA3	-0.023443865	0.928835241	-0.513487415	0.035011363
PPIL6	-0.317257269	0.21467462	-0.252050058	0.329088962
HSD17B11	0.316095576	0.216450975	0.3387159	0.183549578
CCND1	0.563911446	0.018387977	0.247512427	0.338161381
GALNT11	0.539386496	0.02544808	0.792663869	0.000147836
HIPK1-AS1	-0.529946463	0.028664593	-0.471871755	0.055831478
IER5L	-0.267754561	0.298796622	-0.570446426	0.016794541
TP53I13	-0.049193357	0.85127457	-0.293775416	0.252422476
LINC00955	-0.046164138	0.860345605	-0.322322934	0.207038868
RPA2	0.325635647	0.20214215	0.356864816	0.159687357
SCD	0.044162078	0.866349944	0.028069545	0.914837755
TRAPPC12	0.047549006	0.856196486	0.14313131	0.583671789
TIMM17B	-0.280062752	0.27626539	-0.415754863	0.09696184
RPL11	-0.423967101	0.089885694	-0.500715513	0.040634821
CISD1	0.123046315	0.638009044	0.261785887	0.310106419
PPFIBP2	-0.222616091	0.390446423	-0.390515847	0.121192671
SDHAF3	0.028205415	0.914426946	0.393938296	0.117680892
GEMIN4	-0.419062607	0.094065345	-0.317482134	0.214331867
C16orf70	-0.111574918	0.669867478	-0.462825283	0.06137301
CCDC125	0.292609359	0.254398268	-0.031422557	0.904705961
PARG	0.346668133	0.172819713	0.41910602	0.094027748
GLOD5	0.406353003	0.105542524	0.627890853	0.006959789
MICU1	0.326080595	0.201490256	0.741734594	0.000653506
PCDHB15	-0.481864368	0.050153497	-0.481154158	0.050542126

RHPN2	0.018980282	0.942360987	0.667204767	0.003434272
LAP3	0.278539793	0.278995397	0.683531437	0.002485074
POLR1E	-0.095432957	0.715602541	-0.118427077	0.650769477
NPIPB15	0.410575678	0.101624468	0.378269713	0.134358526
MYOM3	0.198382393	0.445294654	0.578945686	0.014886572
MAP4K2	0.417941792	0.095039762	0.408318829	0.10370539
TLCD2	-0.334813187	0.188973561	-0.531703823	0.028043283
DISP2	-0.19207656	0.460181119	-0.344862572	0.175218182
TAP1	0.438861163	0.078014021	0.468014228	0.058146853
PTPRK	-0.54183151	0.024662431	-0.616457061	0.008402807
TOB1-AS1	0.081041651	0.757169037	-0.088411134	0.73579727
DANCR	0.046907253	0.858118766	-0.390406892	0.121305662
NFXL1	-0.301457279	0.23964618	-0.335993289	0.187322428
LINC00475	0.388079336	0.123737068	0.279430606	0.277396567
C8orf76	-0.092999685	0.7225812	-0.159129661	0.54183504
HIST1H3C	-0.028829045	0.912541634	-0.226474094	0.382069829
PEMT	-0.107533336	0.681223205	-0.534989963	0.026909381
DEFA4	0.199301007	0.443146789	0.337038764	0.185867652
C14orf79	-0.174774032	0.50227378	0.149748065	0.566205723
IGLV3-25	-0.369693322	0.144148139	-0.374907659	0.138139665
KNG1	0.000732374	0.997774205	0.683596212	0.002481789
ZNF222	-0.256745464	0.319851541	-0.500529688	0.0407214
MYD88	0.529854105	0.028697537	0.438573135	0.078232149
MYH16	0.086237448	0.742082771	0.141399686	0.588279503

SLC5A2	0.266511301	0.301131814	0.469893264	0.057010264
LOC100505622	0.048116208	0.854498146	0.485077419	0.048423251
ARID5A	0.080264351	0.759433257	-0.380340754	0.132065322
SLC19A3	0.521008811	0.03199016	0.68596391	0.002364131
SMCR5	-0.127542795	0.625679309	-0.40611626	0.105765317
COL26A1	0.318064189	0.213446305	0.27202748	0.290853729
CCM2L	0.48662446	0.047606341	0.406458953	0.105442925
MCU	0.027487139	0.91659892	-0.369214982	0.144708163
IFI44	0.106716686	0.683525738	0.30126146	0.239966689
SPRYD4	-0.181591858	0.485473647	0.380800749	0.131559691
DPAGT1	0.547370646	0.022952076	0.456474731	0.065499615
TMEM231	-0.195732112	0.451521103	-0.370558235	0.143139308
NT5DC2	0.175261868	0.501062609	-0.357248597	0.159206688
SNX30	-0.080174582	0.759694865	0.513637279	0.034949114
TMEM106A	-0.086532736	0.741227992	0.460715713	0.062721826
CSGALNACT1	-0.378242123	0.13438926	-0.476613824	0.053080176
TEK	0.558630057	0.019760205	0.516358777	0.033833333
ABHD17C	-0.010661354	0.967606474	-0.230305969	0.373848645
TEC	-0.232352023	0.369499394	0.062683096	0.811107712
PSMD5	-0.233980605	0.366057791	-0.172539359	0.507839563
ZFAND2A	-0.421115216	0.092299467	-0.683209446	0.002501455
LOC101927308	-0.151400081	0.561880313	-0.268885109	0.296682562
LINC00900	-0.279286771	0.277654344	-0.311600992	0.223412721
COTL1	0.566362947	0.017776931	0.47388958	0.054648065

SERTAD4-AS1	-0.147845542	0.571204676	0.149742985	0.566219044
AKAP8	-0.075678593	0.772828322	-0.339221328	0.182854772
GPR63	-0.053907616	0.837193056	-0.593449232	0.012028566
RSRP1	-0.409380903	0.102722367	-0.572384994	0.016343342
COMMD1	-0.169365411	0.515794242	-0.343757652	0.176696849
MRPL2	-0.504046275	0.039106527	-0.634815508	0.006187465
NAE1	-0.42928568	0.085506222	-0.398309139	0.113300724
GAL	0.520212286	0.032300291	0.416965266	0.095894619
LRRC49	-0.19096388	0.462833474	-0.508178392	0.037271694
CAPN7	-0.532202135	0.027869009	-0.681153614	0.002608138
AKAP10	-0.105378326	0.68730493	-0.46158799	0.062161476
LRP1	0.292324405	0.254882559	-0.270000786	0.294605121
SLC12A6	0.289424528	0.259843668	0.60876455	0.009501425
KDM2B	-0.169640477	0.515102575	-0.331107418	0.194220793
LOC100505978	0.120507813	0.645009925	0.439581887	0.077470151
PIGM	-0.216632772	0.403633077	-0.567735619	0.017441804
FUCA1	0.151955117	0.560430304	0.245004207	0.343237325
GALM	0.272653784	0.289700293	0.812935784	7.28E-05
TBC1D22A	0.005076542	0.984572465	-0.22955797	0.3754457
CHML	-0.306379135	0.231679059	-0.447898495	0.071392761
DDX50	-0.423999846	0.089858247	-0.248054296	0.33707049
LOC100507006	-0.403985154	0.107785902	-0.574205076	0.015928441
ZNF644	-0.386151833	0.125776183	-0.648993477	0.004820807
GIMAP7	0.291889103	0.255623484	0.65942138	0.003980555

SMYD5	-0.539706611	0.025344131	-0.375858248	0.137063227
GCLM	-0.309748273	0.226323687	-0.423898271	0.08994341
PLCE1	-0.329573515	0.196420478	-0.560921209	0.019155422
AMZ2	0.186860202	0.472681258	0.256706412	0.319927738
PRCC	0.011442832	0.965233328	0.528227468	0.029282545
ACSBG2	-0.207351531	0.424552315	0.264466037	0.304997004
SEPT1	-0.278934314	0.278286621	-0.298441415	0.244612424
LOC100506022	-0.382465173	0.129741369	-0.279704086	0.27690685
MECR	-0.010639716	0.967672189	-0.429653828	0.085208902
GPCPD1	-0.360467605	0.155213587	0.08708533	0.73962915
TTC38	0.409917641	0.10222811	0.63507954	0.006159444
GPRC5D	-0.35046992	0.167841622	-0.470610959	0.05658054
DZIP3	-0.283897106	0.269464582	-0.392027307	0.119632829
NUP37	-0.640891706	0.005568002	-0.562513755	0.018743641
PRELID1	0.180819993	0.487361838	0.560677549	0.019219043
PTCHD4	-0.063478947	0.808750876	-0.524891318	0.030511044
MTHFD2	-0.180731525	0.487578483	-0.310068315	0.225819119
VRK2	-0.404334212	0.107453088	-0.496569137	0.042600138
CPNE5	-0.293752446	0.252461304	-0.353044749	0.164525439
IFIT1	0.463432619	0.060988707	0.543398636	0.024168842
LOC100130987	0.18303626	0.481949804	0.055472004	0.832530321
CSK	0.343583366	0.176930847	0.461315409	0.062336183
HNMT	0.589798615	0.01270309	0.504896188	0.03872364
FAM96A	0.261138175	0.311348757	0.642821316	0.005382101

ZSCAN16	-0.584559143	0.013723109	-0.192589687	0.458960522
TMX2	-0.178538884	0.492962734	-0.17314736	0.506322381
AHCY	0.033485432	0.898479376	0.549442808	0.022336484
USP3-AS1	-0.258780721	0.315895227	-0.541980142	0.024615285
LOC100505716	-0.518765659	0.032869428	-0.649749688	0.004755423
HIST1H2BD	0.101339163	0.698752707	0.510038898	0.036467288
LOC101928820	0.129923084	0.619189863	0.246829284	0.339539573
FOXD3-AS1	-0.081397171	0.756134052	0.153061941	0.55754363
FAHD1	0.535974281	0.026576724	0.737248563	0.000732999
AKR1C3	0.65615408	0.004229919	0.776969607	0.00024325
ANO4	-0.305196048	0.233578567	-0.369550397	0.144315314
BLK	-0.338584479	0.183730527	-0.628864215	0.006846783
PHF13	-0.399019327	0.112600036	-0.512338269	0.035491497
PDZD3	0.385472553	0.126500349	0.713554278	0.001297725
DDX10	0.18829142	0.469235018	0.475686681	0.053609952
ALDH2	0.250024299	0.333121592	0.714879989	0.001258742
ARHGEF10L	0.338741111	0.18351488	0.483666327	0.049177518
FRMD1	-0.275144134	0.285141277	-0.470357556	0.05673199
GANC	-0.445500828	0.073107706	-0.509593248	0.036658752
VAC14-AS1	-0.306756	0.23107605	-0.23843648	0.356733486
ITSN1	-0.295715766	0.249156	-0.608394828	0.009556976
SUCLG1	0.45388899	0.067237171	0.827557266	4.14E-05
SQRDL	-0.388940024	0.122834045	-0.403947064	0.107822264
NSRP1	-0.495661927	0.043039564	-0.491246086	0.045227585

ACSL1	0.336479172	0.18664539	0.512540399	0.035406681
LOC101928524	-0.191988562	0.460390606	-0.271541016	0.291751532
ETNK2	0.095754441	0.714682095	0.770596637	0.000294504
MID1	-0.002071641	0.99370402	-0.536566745	0.026378034
CYB5RL	0.27194683	0.291002458	-0.241900582	0.349578161
VPS26B	0.048754292	0.852588292	0.273276527	0.288556157