

Figure S1. Workflow of the study design.

Cohort	Platform	Number of patients	Survival data
GSE15459	Affymetrix Human Genome U133 Plus 2.0 Array	192	OS
GSE34942	Affymetrix Human Genome U133 Plus 2.0 Array	56	OS
GSE57303	Affymetrix Human Genome U133 Plus 2.0 Array	70	OS
GSE62254	Affymetrix Human Genome U133 Plus 2.0 Array	300	OS
TCGA:STAD	Illumina RNAseq	371	OS

Table S1. Datasets of GC patients

 Table S2. 33 acknowledged pyroptosis-related genes

Gene	Full name
AIM2	Absent in melanoma 2
CASP1	cysteine-aspartic acid protease-1
CASP3	cysteine-aspartic acid protease-3
CASP4	cysteine-aspartic acid protease-4
CASP5	cysteine-aspartic acid protease-5
CASP6	cysteine-aspartic acid protease-6
CASP8	cysteine-aspartic acid protease-8
CASP9	cysteine-aspartic acid protease-9
ELANE	elastase, neutrophil expressed
GPX4	glutathione peroxidase 4
GSDMA	gasdermin A
GSDMB	gasdermin B
GSDMC	gasdermin C
GSDMD	gasdermin D
GSDME	gasdermin E
IL18	interleukin 18
IL1B	interleukin 1 beta
IL6	interleukin 6
NLRC4	NLR family CARD domain containing 4
NLRP1	NLR family pyrin domain containing 1
NLRP2	NLR family pyrin domain containing 2
NLRP3	NLR family pyrin domain containing 3
NLRP6	NLR family pyrin domain containing 6
NLRP7	NLR family pyrin domain containing 7
NOD1	nucleotide binding oligomerization domain containing 1
NOD2	nucleotide binding oligomerization domain containing 2
PJVK	pejvakin/deafness, autosomal recessive 59
PLCG1	phospholipase C gamma 1
PRKACA	protein kinase cAMP-activated catalytic subunit alpha
PYCARD	PYD and CARD domain containing
SCAF11	SR-related CTD associated factor 11
TIRAP	TIR domain containing adaptor protein
TNF	tumor necrosis factor

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Gene	Full name
AIM2	Absent in melanoma 2
CASP1	cysteine-aspartic acid protease-1
CASP3	cysteine-aspartic acid protease-3
CASP4	cysteine-aspartic acid protease-4
CASP5	cysteine-aspartic acid protease-5
CASP6	cysteine-aspartic acid protease-6
CASP8	cysteine-aspartic acid protease-8
CASP9	cysteine-aspartic acid protease-9
ELANE	elastase, neutrophil expressed
GPX4	glutathione peroxidase 4
GSDMB	gasdermin B
GSDMC	gasdermin C
GSDMD	gasdermin D
IL18	interleukin 18
IL1B	interleukin 1 beta
IL6	interleukin 6
NLRC4	NLR family CARD domain containing 4
NLRP1	NLR family pyrin domain containing 1
NLRP2	NLR family pyrin domain containing 2
NLRP3	NLR family pyrin domain containing 3
NLRP6	NLR family pyrin domain containing 6
NLRP7	NLR family pyrin domain containing 7
NOD1	nucleotide binding oligomerization domain containing 1
NOD2	nucleotide binding oligomerization domain containing 2
PLCG1	phospholipase C gamma 1
PRKACA	protein kinase cAMP-activated catalytic subunit alpha
PYCARD	PYD and CARD domain containing
SCAF11	SR-related CTD associated factor 11
TIRAP	TIR domain containing adaptor protein
TNF	tumor necrosis factor

 Table S3. 30 overlapping pyroptosis-related genes



**Figure S2.** Characteristics of PGRs in GC. A. The mutation co-occurrence and mutually exclusion analyses for PGRs. Co-occurrence, green; Mutually exclusion, brown. B. Three-dimensional principal component analysis (3D-PCA) of the mRNA expression profiles of PRGs to distinguish tumors from normal samples in TCGA-STAD cohort. C. The correlations between these PGRs were evaluated using the Spearman correlation analysis in GC. D. KEGG pathway enrichment analysis of the 33 PRGs.



Figure S3. The expression of PGRs in TCGA molecular subtypes (A) and GSE62254 cohort subtypes (B).

Gene	HR	HR.95L	HR.95H	P-value	p-km
AIM2	0.9162	0.850929	0.986477	0.020285	0.002784
CASP1	0.813646	0.738252	0.896739	3.23E-05	0.000138
CASP3	0.791896	0.672539	0.932435	0.005122	0.002149
CASP4	0.926298	0.779201	1.101162	0.385538	0.034045
CASP5	0.826208	0.743883	0.917644	0.000364	6.20E-05
CASP6	0.758625	0.643263	0.894675	0.001029	4.25E-05
CASP8	0.766377	0.625849	0.938459	0.010038	0.005662
CASP9	0.791276	0.612488	1.022252	0.073206	0.000452
ELANE	1.057157	0.928772	1.20329	0.40012	0.145916
GPX4	1.29307	1.078449	1.550401	0.005511	1.97E-05
GSDMB	0.86055	0.784177	0.944361	0.001539	4.90E-05
GSDMC	0.848944	0.723394	0.996285	0.044904	0.003529
GSDMD	0.730325	0.60767	0.877739	0.000808	2.56E-05
IL18	0.947813	0.858823	1.046024	0.286657	0.024476
IL1B	0.986575	0.918594	1.059588	0.710612	0.020541
IL6	1.122685	1.052046	1.198068	0.000483	0.000552
NLRC4	1.072602	0.913468	1.259458	0.392344	0.116657
NLRP1	1.061701	0.914147	1.233072	0.432913	0.055706
NLRP2	0.997506	0.941941	1.05635	0.93196	0.154515
NLRP3	1.205337	1.065877	1.363046	0.002912	0.002096
NLRP6	0.902724	0.818304	0.995854	0.041061	0.002225
NLRP7	0.982512	0.881398	1.095225	0.750177	0.036066
NOD1	1.087384	0.894139	1.322395	0.401384	0.042653
NOD2	1.163598	1.021308	1.325712	0.022799	0.004966
PLCG1	1.233606	1.048437	1.451479	0.011407	0.000288
PRKACA	0.985863	0.770836	1.260871	0.909696	0.266301
PYCARD	0.943283	0.827467	1.07531	0.382335	0.001941
SCAF11	0.978412	0.773484	1.237634	0.855581	0.184893
TIRAP	0.689006	0.549698	0.863619	0.001228	1.25E-05
TNF	0.919229	0.818404	1.032475	0.155373	0.012761

Table S4. Univariate Cox regression analysis of 30 PRGs in GC patients





Figure S4. OS-related PRGs in gathered GC cohort. Kaplan-Meier curves for GC patients with high and low levels of AIM2 (A), CASP1 (B), CASP3 (C), CASP4 (D), CASP5 (E), CASP6 (F), CASP8 (G), CASP9 (H), GPX4 (I), GSDMB (J), GSDMC (K), GSDMD (L), IL1B (M), IL6 (N), IL18 (O), NLRP2 (P), NLRP3 (Q), NLRP6 (R), NLRP7 (S), NOD1 (T), NOD2 (U), PLCG1 (V), PKACA (W), PYCARD (X), TIRAP (Y), TNF (Z) in gathered GC cohort.



**Figure S5.** Difference in PRGs expression between PLCG1-mutant and wild types. (A-C) Expression levels of CASP3 (A), CASP6 (B), and PLCG1 (C) between PLCG1-mutant and wild types.



Figure S6. Difference in PRGs expression between CASP5-mutant and wild types. (A-G) Expression levels of CASP3 (A), GPX4 (B), NLRP3 (C), NLRP7 (D), PRKACA (E), TIRAP (F), and PLCG1 (G) between CASP5-mutant and wild types.



Figure S7. Difference in PRGs expression between CASP8-mutant and wild types. (A-C) Expression levels of AIM2 (A), CASP3 (B), and ELANE (C) between CASP8-mutant and wild types.



Figure S8. Difference in PRGs expression between NLRP3-mutant and wild types. (A-I) Expression levels of CASP3 (A), CASP6 (B), CASP9 (C), ELANE (D), NLRP2 (E), NLRP3 (F), PLCG1 (G), NOD2 (H), and TNF (I) between NLRP3-mutant and wild types.



**Figure S9.** Unsupervised clustering analysis for identifying pyroptosis-related molecular patterns. A. Consensus clustering matrix for k=3. B. Relative change in area under CDF curve for k=2-9. C. Consensus clustering cumulative distribution function (CDF) for k=2-9. D. The tracking plot for k=2-9.





**Figure S10.** Identification of biological pathways by GSVA enrichment analysis in distinct pyroptosis-related molecular patterns. The heatmap was used to show the activation states of biological pathways. Red represents the activated pathways, while blue represents the inhibited pathways. The GC cohorts were used as sample annotations. A. Pyroptosis Cluster A vs pyroptosis Cluster B; B. Pyroptosis Cluster A vs pyroptosis Cluster C; C. Pyroptosis Cluster B vs pyroptosis Cluster C.



**Figure S11.** Correlation between the characteristics of tumor immune microenvironment (TIME) and pyroptosis clusters. (A) Box plots depicts the scores of immune infiltrations among the three pyroptosis clusters. (B) Box plots presents the scores of immune functions among the three pyroptosis clusters. \*P<0.05; \*\*P<0.01; \*\*\*P<0.001. (C-E) Box plots shows the differences in (C) ESTIMATE score, (D) immune score, and (E) stromal score among the three pyroptosis clusters.





**Figure S12.** Correlation between GSDMC expression and TME infiltration as well as the prognostic role of GSDMC in GC. (A) The correlation between each PRGs and each TME infiltration cell type using spearman analysis. \*P<0.05; \*\*P<0.01; \*\*\*P<0.001. (B, C) Survival analyses for patients with low or high GSDMC expression in the TCGA-STAD (B) and GSE62254 (C) cohorts using Kaplan-Meier curves. (D) GSEA analysis indicated that five immune or inflammation-related pathways were enriched in the GSDMC high expression group in the gathered GC cohort. (E) RT-qPCR results showed that the mRNA expression level of GSDMC was higher expressed in GC tissues than adjacent non-tumor tissues. \*P<0.05; \*\*P<0.01; \*\*\*P<0.001. (F) GSDMC expression in GC tumor tissues and the paired adjacent non-tumor tissues. \*P<0.05; \*\*P<0.01; \*\*\*P<0.05; \*\*P<0.01; \*\*\*P<0.01; \*\*\*P<0.01



**Figure S13.** Correlation between GSDMC expression and immune cells infiltration. A. Difference in the abundance of each TME infiltrating cell between GSDMC high expression (Red) and low expression (Green) groups. B. Box plots shows the differences in immune score between GSDMC high expression and low expression groups. C. Correlation between GSDMC expression and immune cells infiltration.

#### Table S5. 346 overlapping DEGs

Gene

IRF1 ID01 CASP1 GBP5 GBP1 CD274 APOL6 IL12RB1 TAP1 TYMP TAP2 IFNG TNFRSF9 PSMB9 RNF213 IL2RB TNFSF13B CARD16 ICOS UBE2L6 IL32 SAMD9L IL2RA ETV7 BATF2 GZMB SLAMF8 SNX20 CXCL11 STAT1 LCP2 CD80 LAMP3 BIRC3 CD300LF IFIH1 CCL4 HAVCR2 IFIT3 ICAM1 SIGLEC10 CXCL10 SNX10 PRF1 PSMB8 TRAFD1 PLEK KLRD1 ZBP1 NCF1 CYBB CD300A ADAMDEC1 RNF19B LAG3 PLA2G7 CD53 IFI35 FLVCR2 CD86 ACP5 LYN IGSF6 NMI IL15RA SAMSN1 KMO OAS2 BCL2A1 CD38 SLAMF1 CLEC7A TFEC SLAMF7 LCP1 LILRB4 HK3 DAPP1 IL18RAP KLHL6 GPR65 TLR8 LILRB1 OAS3 IL4I1 NFAM1 STX11 RAC2 ST8SIA4 CLEC4E CCR1 ITGB2 PARP12 ITGAX MICB CLEC4A TAGAP GNLY FGR CTLA4 DOK3 SLC2A5 PDCD1LG2 LAPTM5 KIR2DL4 STAT4 LAIR1 HCK SIGLEC7 PIK3R5 JAK3 CYTH4 RHOH PTAFR CASP5 HPS5 NCF2 PIK3AP1 LST1 MNDA TRAF1 APOL1 USP18 FCER1G GCH1 PILRA NLRC4 PMAIP1 KLHDC7B ALOX5AP LACTB CASP4 SOCS1 TNFAIP3 CSF3R FPR3 OASL CASP10 FCGR1B TNFRSF1B LILRB2 SERPINB9 SLC31A2 ZNF267 MOV10 MMP25 LAIR2 APOBR OSCAR CCR8 CD40 CMPk2 HLA-C PLSCR1 DENND2D MTURN CD69 CD83 SH2D2A SRGN CD7 SELL THEMIS2 LINC01094 CSF2RB LILRB3 RIPK2 LILRA6 ISG20 NFE2L3 CCL18 TNF PRDM1 PREX1 RSAD2 ITGA4 SECTM1 MYD88 HPSE NPL KIF2A LMNB1 GST01 TNFRSF4 MLKL SIGLEC9 SPI1 GCA RELT NOS2 FBX06 TYROBP CYTIP GSDMB CKB RASGRP3 FCGR2A SH2B3 HMOX1 SERTAD4 ITGAM PIM2 CCRL2 TMSB10 CCL22 ADPGK BAK1 RNF149 CDCP1 NFKBIE CNDP2 MCM5 IL12RB2 DNMT1 OAS1 FCGR2C MEI1 UBE2D1 TNIP3 ADAM10 BATF SIGLEC5 ADA KYNU CASS4 NOD2 PBX1 HELZ2 ISG15 WFS1 CD300C EXOSC9 C15orf48 NECAP2 DRAM1 PSMA4 REEP1 IGHG1 TNFRSF18 ACOT7 MYO7A TCEAL4 KCNH2 UHRF1 NCEH1 CASP7 TMPO IKBKE COL4A5 IL17RA HELLS SIRPB1 EZH2 BRIP1 PPP1R14A NUP50 CENPK PTBP3 CEACAM4 ALAS1 DYNC1I1 RHEBL1 DDX60L CD14 SDS ACP2 CAPG OLR1 RAB39A IRF7 CAPZA1 TRIM15 SIRPB2 CENPH NAV2 WLS TPM3 GTF2B HLA-G KNTC1 TRPV2 PRKAB2 EAF2 RGS19 IL7R MCM6 DENND1A CHST11 PRELID1 APBB1IP BATF3 CXCL16 SLC25A22 E2F7 VLDLR TTLL7 DEPDC1B BMPR1B PTGES3L LINC01278 ENAH HNRNPF MREG SLC41A3 PDZRN3 CYP39A1 SLC16A6 PDZK1IP1 GNAZ VNN2 C3orf70 CTSZ MALT1 CDCA2 CDV3 POLD1 MYEF2 GINS3 RAB42 COQ2 PCP4 GPD2 ALOX5 PARP8 M6PR VAMP8 NUP62 SLC15A4 MZB1 ATOX1 RP2 ZNF827 MFSD5 AK2 IL1B CELF2 TK2 RBM43 PROK2 PIK3IP1 NLRP2 ACSM5 BCL2 MBNL1 LNPEP RASD1



**Figure S14.** Identification of pyroptosis gene clusters. A. KEGG pathway enrichment analysis presents the enriched pathways of 346 overlapping DEGs. B. GO enrichment analysis of biological process (BP), cellular component (CC) and molecular function (MF) terms of 346 overlapping DEGs ranked by adjusted *p*-value. C. Heatmap presents the correlation between the three gene clusters and clinicopathological characteristics of GC patients.

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Gene	нк	HK.95L	HK.95H	
IRF1	0.807396	0./15696	0.910845	0.000505
ID01	0.913376	0.863272	0.966388	0.001646
CASP1	0.813646	0.738252	0.896739	3.23E-05
GBP5	0.925065	0.857991	0.997382	0.042537
CD274	0.859674	0.76913	0.960876	0.007749
APOL6	0.73715	0.642404	0.845871	1.39E-05
IL12RB1	0.804104	0.692594	0.933568	0.004204
TAP1	0.796753	0.717163	0.885175	2.32E-05
TAP2	0.748394	0.64462	0.868875	0.000142
IFNG	0.876235	0.793202	0.967961	0.009294
PSMB9	0.825908	0.744501	0.916216	0.000303
RNF213	0.847019	0.735574	0.97535	0.02107
CARD16	0.817257	0.709925	0.940817	0.004966
UBE2L6	0.850847	0.75684	0.956531	0.006852
ETV7	0.78489	0.704059	0.875	1.25E-05
BATF2	0.819535	0.746162	0.900123	3.20E-05
GZMB	0.870201	0.80528	0.940356	0.000441
LAMP3	0.898799	0.820095	0.985056	0.02249
BIRC3	0.906458	0.827936	0.992427	0.033636
IFIH1	0.787342	0.680068	0.911538	0.001377
PRF1	0.884607	0.79423	0.985267	0.025754
PSMB8	0.761764	0.670688	0.865209	2.81F-05
TRAFD1	0 718729	0 582103	0.887422	0.002139
KI RD1	0.8558	0.738816	0.991306	0.037857
7BP1	0.864853	0 77625	0.963569	0.008465
RNF19R	0.830844	0.71336	0.967676	0.017201
1463	0.86336	0.783926	0.950843	0.002849
IFI35	0.844633	0.735133	0.970//3	0.017151
I VN	0.8383/8	0.730150	0.975122	0.022215
NMI	0.765955	0.651375	0.97.9122	0.022213
	0.7000000	0.718375	0.90009	0.001200
0462	0.042104	0.710373	0.907514	0.03423
	0.904819	0.820738	0.997514	0.044433
DAPPI	0.009900	0.700343	0.907309	0.031047
	0.000200	0.773493	0.967976	0.011445
	0.829233	0.711609	0.9663	0.016432
PARP12	0.807629	0.694691	0.938928	0.005438
MICB	0.848303	0.761751	0.944689	0.002733
GNLY	0.898997	0.825789	0.978696	0.014016
CILA4	0.837573	0.735601	0.953681	0.007451
KIR2DL4	0.700891	0.593537	0.827663	2.79E-05
CASP5	0.826208	0.743883	0.917644	0.000364
USP18	0.853709	0.76377	0.954239	0.005359
GCH1	0.730314	0.629373	0.847445	3.46E-05
OASL	0.911778	0.83342	0.997503	0.043957
CASP10	0.672346	0.580646	0.778529	1.12E-07
MOV10	0.784419	0.651599	0.944313	0.010308
MMP25	0.719693	0.614968	0.842253	4.14E-05

Table S6. 143 OS-related DEGs

LAIR2	0.793559	0.706695	0.891099	9.26E-05
CMPK2	0.891545	0.808428	0.983207	0.021497
DENND2D	0.747292	0.641983	0.869875	0.000171
LINC01094	1.186739	1.038648	1.355946	0.011817
ISG20	0.887751	0.799108	0.986227	0.02653
NFE2L3	0.840868	0.755551	0.935819	0.001498
SECTM1	0.867966	0.783065	0.962072	0.007014
MYD88	0.804417	0.656286	0.985984	0.036091
LMNB1	0.827362	0.744515	0.919428	0.000431
MLKL	0.835612	0.701855	0.994858	0.043603
GCA	0.735403	0.607031	0.890921	0.00169
NOS2	0.885801	0.827356	0.948374	0.000498
FBX06	0.830328	0.73806	0.93413	0.001977
TYROBP	1.150582	1.04052	1.272285	0.006252
GSDMB	0.86055	0.784177	0.944361	0.001539
СКВ	1.094855	1.020508	1.174618	0.011544
FCGR2A	1.171335	1.051725	1.304548	0.004007
HMOX1	1.132562	1.013423	1.265708	0.028158
SERTAD4	1.177681	1.071471	1.294417	0.000695
BAK1	0.778463	0.665738	0.910275	0.001702
CDCP1	0.882331	0.794858	0.979429	0.018765
CNDP2	0.672423	0.567409	0.796873	4.63E-06
DNMT1	0.774564	0.652206	0.919876	0.003591
OAS1	0.889679	0.804738	0.983586	0.022417
ADAM10	0.836061	0.699363	0.999478	0.049333
NOD2	1.163598	1.021308	1.325712	0.022799
PBX1	1.16536	1.048668	1.295037	0.004473
HELZ2	0.811761	0.705668	0.933803	0.003518
WFS1	1.14481	1.016241	1.289645	0.02608
EXOSC9	0.69493	0.564794	0.855053	0.000581
C15orf48	0.926584	0.873933	0.982408	0.010631
PSMA4	0.781498	0.621595	0.982535	0.034789
REEP1	1.186947	1.103541	1.276657	4.02E-06
TNFRSF18	0.830752	0.723653	0.953701	0.00846
ACOT7	0.797017	0.690832	0.919523	0.00187
TCEAL4	1.495561	1.308147	1.709825	3.81E-09
KCNH2	1.179119	1.093046	1.271971	2.04E-05
UHRF1	0.833989	0.755463	0.920677	0.000321
NCEH1	0.869246	0.782718	0.965339	0.00881
CASP7	0.6674	0.572033	0.778668	2.75E-07
ТМРО	0.761282	0.652237	0.888558	0.000544
IKBKE	0.706057	0.598759	0.832583	3.50E-05
COL4A5	1.180412	1.085782	1.283289	0.0001
HELLS	0.798777	0.702036	0.908849	0.000647
EZH2	0.774796	0.688768	0.871569	2.15E-05
BRIP1	0.796093	0.692997	0.914527	0.00127
PPP1R14A	1.202651	1.131172	1.278646	3.58E-09
NUP50	0.669595	0.544852	0.822898	0.000137
CENPK	0.865314	0.767958	0.975011	0.017524

PTBP3	0.835305	0.703892	0.991253	0.039345
CEACAM4	0.8132	0.673753	0.981508	0.031206
ALAS1	0.734179	0.61261	0.879874	0.000821
DYNC111	1.385781	1.241473	1.546863	6.06E-09
CD14	1.185833	1.069669	1.314612	0.001194
SDS	1.130917	1.012385	1.263327	0.029417
OLR1	1.186747	1.097358	1.283418	1.83E-05
CAPZA1	0.698459	0.546468	0.892725	0.004153
TRIM15	0.866508	0.796407	0.94278	0.000872
NAV2	1.198031	1.04816	1.369331	0.008054
WLS	1.308671	1.172479	1.460683	1.60E-06
ТРМЗ	0.721183	0.584335	0.890081	0.00233
KNTC1	0.80263	0.693607	0.92879	0.00316
PRKAB2	1.248247	1.086094	1.434609	0.001789
MCM6	0.80674	0.680872	0.955875	0.013087
DENND1A	0.725169	0.603349	0.871585	0.000615
CHST11	1.227235	1.085619	1.387323	0.001064
PRELID1	0.816181	0.668596	0.996345	0.045939
BATF3	1.226234	1.023152	1.469627	0.027264
SLC25A22	0.758829	0.649719	0.886263	0.000493
E2F7	0.82213	0.726085	0.930879	0.002002
VLDLR	1.242559	1.134498	1.360912	2.89E-06
TTLL7	1.174714	1.08259	1.274677	0.000111
BMPR1B	1.249103	1.140952	1.367507	1.48E-06
PTGES3L	1.23219	1.107465	1.370962	0.000126
LINC01278	1.210759	1.065914	1.375286	0.003262
ENAH	1.291734	1.13575	1.469141	9.67E-05
MREG	0.742326	0.645139	0.854154	3.16E-05
SLC41A3	1.288212	1.030903	1.609744	0.025902
PDZRN3	1.205114	1.112511	1.305425	4.79E-06
CYP39A1	1.154878	1.03603	1.28736	0.009355
GNAZ	1.157637	1.044683	1.282804	0.005198
C3orf70	1.141964	1.059314	1.231062	0.000534
CDCA2	0.815699	0.73714	0.902631	8.06E-05
POLD1	0.81475	0.705986	0.94027	0.005072
MYEF2	1.220187	1.101455	1.351717	0.000139
GINS3	0.721311	0.60262	0.863379	0.000369
COQ2	0.708387	0.577748	0.868566	0.000917
GPD2	0.762171	0.651281	0.891941	0.000711
SLC15A4	1.338972	1.048805	1.709417	0.019163
MZB1	0.935363	0.878006	0.996467	0.038491
RP2	0.751701	0.61416	0.920043	0.005636
ZNF827	1.272892	1.091552	1.484359	0.00209
MFSD5	0.760984	0.596689	0.970516	0.027727
AK2	0.750842	0.59152	0.953077	0.018527
ACSM5	1.321234	1.055818	1.653372	0.014905
RASD1	1.084967	1.010045	1.165447	0.025501



**Figure S15.** Unsupervised clustering analysis for identifying pyroptosis gene Clusters. A. Consensus clustering matrix for k=3. B. Relative change in areaunder CDF curve for k=2-9. C. Consensus clustering cumulative distribution function (CDF) for k=2-9. D. The tracking plot for k=2-9.



Figure S16. Correlation between the characteristics of TIME and pyroptosis gene clusters. (A) Box plots depicts the scores of immune infiltrations among the three pyroptosis gene clusters. (B) Box plots presents the scores of immune functions among the three pyroptosis gene clusters. \*P<0.05; \*\*P<0.01; \*\*\*P<0.001. (C-E) Box plots shows the differences in (C) ESTIMATE score, (D) immune score, and (E) stromal score among the three pyroptosis gene clusters.



**Figure S17.** Subgroup analysis of the prognostic role of pyroptosis score in GC patients. A, B. Subgroup analysis of the prognostic role of pyroptosis score in GC patients stratified by age. C, D. Subgroup analysis of the prognostic role of pyroptosis score in GC patients stratified by gender. E, F. Subgroup analysis of the prognostic role of pyroptosis score in GC patients stratified by gender. E, F. Subgroup analysis of the prognostic role of pyroptosis score in GC patients stratified by stage.

![](_page_25_Figure_1.jpeg)

**Figure S18.** Survival analysis of the prognostic role of pyroptosis score in different GC cohort. (A-E) Survival analysis of the prognostic role of pyroptosis score in meta-GEO cohort (A, n=618, including GSE15459, GSE34942, GSE57303, and GSE62254 cohorts), TCGA-STAD cohort (B, n=371), GSE62254 cohort (C, n=300), GSE57303 cohort (D, n=70), and GSE34942 cohort (E, n=56).

![](_page_26_Figure_1.jpeg)

**Figure S19.** Correlation between the pyroptosis score and clinicopathologic features. A, B. Differences in pyroptosis score between patients with different survival state. C, D. Differences in pyroptosis score between patients with different gender. E, F. Differences in pyroptosis score between patients with differences pyroptosis score between pyroptosis score betwee

![](_page_27_Figure_1.jpeg)

Figure S20. GSEA identified the pathways enriched in the low pyroptosis score group.

![](_page_28_Figure_1.jpeg)

**Figure 21.** Correlation between the characteristics of TIME and pyroptosis score. (A) Box plots depicts the scores of immune infiltrations between the high and low pyroptosis score groups. (B) Box plots presents the scores of immune functions between the high and low pyroptosis score groups. \*P<0.05; \*\*P<0.01; \*\*\*P<0.001. (C-E) Box plots shows the differences in (C) ESTIMATE score, (D) immune score, and (E) stromal score between the high and low pyroptosis score groups.

![](_page_29_Figure_1.jpeg)

![](_page_30_Figure_1.jpeg)

**Figure S22.** The expression levels of PRGs in different subgroups of GC. A. The expression levels of PRGs between the MSI and no MSI groups in TCGA-STAD cohort. B. The expression levels of PRGs among the MSI-High, MSI-Low, and MSS groups in TCGA-STAD cohort. C. The expression levels of PRGs between the MSI and no MSI groups in GSE62254 cohort. D. The expression levels of PRGs among the EMT, MSI, MSI/TP53- and MSI/TP53+ groups in GSE62254 cohort. E. The expression levels of PRGs between the EBV negative and EBV positive groups in TCGA-STAD cohort. \*P<0.05; \*\*P<0.01; \*\*\*P<0.001.

![](_page_31_Figure_1.jpeg)

rank	cmap name	mean	n	enrichment	Р	specificity	% non-null	
1	caffeic acid	0.451	3	0.873	0.00373	0.0000	66	
2	puromycin	-0.636	4	-0.719	0.01255	0.0970	75	-
3	alimemazine	-0.618	4	-0.714	0.01355	0.0068	75	
4	memantine	0.418	4	0.683	0.02166	0.0000	50	-
5	piperlongumine	0.379	2	0.887	0.02648	0.1364	50	
6	dorzolamide	0.361	4	0.655	0.03284	0.0000	50	
7	bumetanide	-0.384	4	-0.646	0.03744	0.1487	50	
8	0198306-0000	0.422	4	0.643	0.03923	0.0073	50	-
9	bacitracin	-0.495	3	-0.728	0.04160	0.0424	66	
10	diprophylline	-0.281	5	-0.569	0.04500	0.0397	60	-
11	levothyroxine sodium	-0.213	4	-0.630	0.04603	0.0848	50	

**Figure S23.** Potential small molecule compounds for GC treatment based on the pyroptosis score. A. Volcano plot shows the downregulated genes (green dots) and upregulated genes (red dots) between the low and high pyroptosis score groups. B. GO enrichment analysis of biological process (BP), cellular component (CC) and molecular function (MF) terms ranked by adjusted *p*-value. C. KEGG pathway enrichment analysis presents the enriched pathways. D. Potential small molecule compounds obtains from the CMap database.

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Gene	logFC	Average Expression	t	P-Value	Adjusted P-Value	В
ID01	-3.55431	4.838732	-27.8995	6.69E-127	1.18E-122	278.8428
GBP4	-2.349	4.667764	-27.8471	1.52E-126	1.34E-122	278.0286
IFNG	-1.97693	2.58534	-26.8786	5.58E-120	3.28E-116	262.9997
FASLG	-1.31937	2.644864	-26.2263	1.41E-115	6.21E-112	252.9223
GBP5	-2.4719	4.058779	-26.0607	1.83E-114	6.47E-111	250.3708
CD274	-1.72634	3.513492	-24.4395	1.26E-103	3.69E-100	225.5661
GBP1	-1.78767	5.78937	-23.6833	1.25E-98	3.15E-95	214.1244
TBX21	-1.10858	2.774935	-23.6407	2.38E-98	5.24E-95	213.4834
LAG3	-1.85205	3.377779	-23.4894	2.35E-97	4.60E-94	211.2069
PRF1	-1.63103	4.379355	-23.3453	2.07E-96	3.65E-93	209.0422
GZMB	-2.24618	4.740927	-23.2192	1.39E-95	2.22E-92	207.1524
IRF1	-1.42651	5.666289	-23.1125	6.92E-95	1.02E-91	205.5539
HAPLN3	-1.41129	4.525962	-22.575	2.19E-91	2.97E-88	197.5407
TYMP	-1.58202	5.473206	-22.5498	3.19E-91	4.02E-88	197.1668
KLRD1	-1.14652	2.880229	-22.3416	7.11E-90	8.36E-87	194.0795
LAP3	-1.18876	7.021848	-22.0442	5.90E-88	6.50E-85	189.6866
GBP1P1	-1.54847	2.716381	-21.6716	1.46E-85	1.51E-82	184.2105
CD96	-1.45713	3.042683	-21.6038	3.95E-85	3.87E-82	183.2182
CXCL11	-2.76598	4.432923	-21.5883	4.96E-85	4.60E-82	182.9915
TAP2	-1.12166	4.58346	-21.4417	4.28E-84	3.77E-81	180.8492
USP30-AS1	-1.46041	3.222933	-21.3465	1.73E-83	1.45E-80	179.4613
TAP1	-1.53485	6.901162	-21.2337	9.01E-83	6.91E-80	177.8192
STAT1	-1.37441	6.723666	-21.1809	1.95E-82	1.43E-79	177.051
GZMH	-2.04389	4.030525	-21.1495	3.09E-82	2.18E-79	176.5946
UBE2L6	-1.33854	6.663227	-21.0561	1.21E-81	8.19E-79	175.2394
NKG7	-2.10947	4.714764	-20.9891	3.20E-81	2.09E-78	174.2695
IL18BP	-1.16247	4.251962	-20.6754	3.05E-79	1.92E-76	169.7397
CXCL10	-2.62148	6.017864	-20.629	5.97E-79	3.63E-76	169.0722
JAKMIP1	-1.14945	2.271342	-20.5908	1.04E-78	6.10E-76	168.5229
SLA2	-1.12374	3.334717	-20.5796	1.22E-78	6.94E-76	168.3618
CXCR6	-1.41183	3.686143	-20.5152	3.09E-78	1.70E-75	167.4373
TIGIT	-1.387	3.102083	-20.4872	4.63E-78	2.47E-75	167.0355
IL21R	-1.24281	2.823282	-20.2912	7.78E-77	4.04E-74	164.23
CRTAM	-1.77706	2.507919	-20.1785	3.93E-76	1.98E-73	162.6212
GNLY	-1.84332	3.786585	-20.0977	1.25E-75	6.12E-73	161.4711
CXCL9	-2.70501	5.879483	-19.8492	4.34E-74	2.07E-71	157.9432
ZNF683	-1.49941	3.210272	-19.6149	1.21E-72	5.62E-70	154.6355
BATF2	-1.66725	4.712729	-19.4485	1.27E-71	5.76E-69	152.2963
IL2RB	-1.48553	4.758879	-19.3648	4.14E-71	1.83E-68	151.1233
KLRC3	-1.04734	1.911848	-19.3608	4.39E-71	1.89E-68	151.067
CCL5	-1.92942	6.009196	-19.3162	8.21E-71	3.37E-68	150.4433
ICAM1	-1.43026	5.295064	-19.243	2.30E-70	9.02E-68	149.419
AIM2	-2.05065	3.717292	-19.2081	3.76E-70	1.44E-67	148.9326
IFIH1	-1.0596	4.370766	-19.1052	1.59E-69	5.97E-67	147.4982
SIRPG	-1.39763	2.853407	-19.0969	1.78E-69	6.56E-67	147.3832
APOL3	-1.25584	4.575031	-19.0028	6.66E-69	2.40E-66	146.075
APOL6	-1.06443	5.153018	-18.9589	1.23E-68	4.33E-66	145.4658

Table S7. DEGs between the low and high pyroptosis score groups

GZMA	-1.84492	4.949727	-18.8868	3.36E-68	1.16E-65	144.4665
IL12RB1	-1.00177	3.308407	-18.7877	1.33E-67	4.52E-65	143.0962
ETV7	-1.36147	4.23029	-18.669	6.92E-67	2.26E-64	141.4595
RNF213	-1.07039	5.05339	-18.6644	7.37E-67	2.36E-64	141.3973
PSMB9	-1.3798	6.57102	-18.6419	1.01E-66	3.17E-64	141.0869
PTPN22	-1.09793	3.200523	-18.5563	3.29E-66	1.02E-63	139.9112
APOBEC3G	-1.26387	4.206232	-18.4628	1.19E-65	3.63E-63	138.6292
PSMB10	-1.11139	6.118016	-18.4055	2.63E-65	7.85E-63	137.845
CD8A	-1.84211	4.412119	-18.385	3.48E-65	1.02E-62	137.565
HLA-DOA	-1.5506	4.035924	-18.2961	1.18E-64	3.36E-62	136.3505
TNFSF13B	-1.39766	5.195762	-18.282	1.43E-64	4.01E-62	136.1588
KLHDC7B	-1.31388	3.11822	-18.2359	2.70E-64	7.31E-62	135.5312
NLRC5	-1.19484	5.043821	-18.2256	3.10E-64	8.30E-62	135.3906
SLAMF8	-1.44643	4.348474	-18.2102	3.83E-64	1.01E-61	135.1816
SAMD9L	-1.53208	4.695359	-18.1228	1.27E-63	3.28E-61	133.9945
KLRC4	-1.17385	1.577925	-17.8906	2.98E-62	7.63E-60	130.8537
ZBP1	-1.35329	2.720734	-17.8425	5.73E-62	1.44E-59	130.2054
LILRB4	-1.21939	3.165039	-17.7503	2.00E-61	4.89E-59	128.9649
THEMIS	-1.31427	2.756617	-17.7282	2.69E-61	6.50E-59	128.6687
SH2D1A	-1.29271	2.986779	-17.565	2.42E-60	5.77E-58	126,4845
IFIT3	-1.51314	5.830556	-17.513	4.87E-60	1.13E-57	125.7907
CXCR3	-1.24504	3.586424	-17.4689	8.80E-60	2.02E-57	125,2029
LAMP3	-1.52723	4.752006	-17.4494	1.14E-59	2.55E-57	124,9426
PLA2G2D	-1.78298	2.619041	-17.4332	1.42E-59	3.13E-57	124.7281
HAVCR2	-1.15342	3.775779	-17.4262	1.56E-59	3.40E-57	124.6339
IL2RA	-1.16975	3.369232	-17.412	1.89E-59	4.01E-57	124,4456
CD3G	-1.31208	3.751683	-17.3951	2.36E-59	4.96E-57	124.2215
PDCD1LG2	-1.25256	2.459625	-17.3669	3.45E-59	7.15E-57	123.8463
GPR171	-1.45689	3.594426	-17.3135	7.03E-59	1.44E-56	123.1388
ZBED2	-1.52848	2.339475	-17.2943	9.08E-59	1.84E-56	122.8842
CCR5	-1.34766	4.425179	-17.2024	3.08E-58	6.18E-56	121.6691
IFI35	-1.02067	5.718356	-17.1801	4.15E-58	8.13E-56	121.3745
CD247	-1.1519	3.651872	-17.1423	6.85E-58	1.31E-55	120.8762
ITGAL	-1.35197	4.10479	-17.083	1.50E-57	2.82E-55	120.0944
EPSTI1	-1.35037	5.480953	-17.0626	1.97E-57	3.64E-55	119.8263
JAK2	-1.20636	4.281729	-17.0622	1.98E-57	3.64E-55	119.8205
CD38	-1.64728	3.864888	-17.0249	3.25E-57	5.90E-55	119.3306
TLR8	-1.29719	3.144036	-16.9794	5.92E-57	1.05E-54	118.7343
IL32	-1.3428	6.439153	-16.9222	1.26E-56	2.22E-54	117.9848
CLEC2D	-1.03037	2.750319	-16.7064	2.14E-55	3.67E-53	115.1692
OAS2	-1.36606	5.098954	-16.6002	8.57E-55	1.44E-52	113.7914
PYHIN1	-1.07541	2.758997	-16.56	1.45E-54	2.40E-52	113.2719
CD2	-1.49103	5.174619	-16.5402	1.87E-54	3.06E-52	113.0153
SLAMF7	-1.66653	4.210657	-16.5037	3.01E-54	4.87E-52	112.5441
CD300LF	-1.25538	3.703832	-16.4993	3.19E-54	5.11E-52	112.4871
ICOS	-1.42521	2.775487	-16.2931	4.59E-53	7.17E-51	109.8361
UBASH3A	-1.27128	2.530287	-16.2522	7.78E-53	1.19E-50	109.3127
SNX10	-1.2003	5.184888	-16.2376	9.40E-53	1.42E-50	109.1251
STX11	-1.04782	3.334425	-16.1826	1.91E-52	2.80E-50	108.4232

CD74	-1.30425	8.058649	-16.1321	3.65E-52	5.23E-50	107.7789
SLC15A3	-1.10948	4.826265	-16.1194	4.29E-52	6.10E-50	107.617
SIGLEC10	-1.20916	3.706367	-16.0145	1.64E-51	2.32E-49	106.2837
IL4I1	-1.42906	3.838432	-15.9635	3.15E-51	4.41E-49	105.6372
ZAP70	-1.18635	3.236698	-15.9006	7.01E-51	9.74E-49	104.8424
CTLA4	-1.06892	3.040391	-15.8958	7.46E-51	1.03E-48	104.7813
CMKLR1	-1.08042	3.465696	-15.8368	1.58E-50	2.14E-48	104.0366
HLA-DMB	-1.36654	5.899453	-15.7391	5.44E-50	7.21E-48	102.8075
GBP2	-1.12052	5.741394	-15.6924	9.81E-50	1.29E-47	102.2221
CD3D	-1.37019	5.244348	-15.5937	3.40E-49	4.41E-47	100.9876
FCGR1B	-1.08097	3.328647	-15.5908	3.53E-49	4.54E-47	100.9513
HK3	-1.11209	2.776986	-15.5062	1.02E-48	1.29E-46	99.89639
LCP2	-1.01079	4.096755	-15.4985	1.12E-48	1.41E-46	99.80139
TRAC	-1.37868	5.431936	-15.4854	1.32E-48	1.66E-46	99.6379
CD84	-1.04861	3.534901	-15.4412	2.30E-48	2.86E-46	99.08944
DOK2	-1.03446	4.068926	-15.4261	2.78E-48	3.43E-46	98.9021
CCL4	-1.4232	5.066903	-15.4134	3.26E-48	3.99E-46	98.74386
CYBB	-1.27734	4.497968	-15.3943	4.13E-48	5.02E-46	98.50815
TRAT1	-1.27845	2.727951	-15.3477	7.39E-48	8.92E-46	97.93119
HLA-DMA	-1.33004	6.639855	-15.3179	1.07E-47	1.29E-45	97.56213
SLAMF6	-1.16313	3.664096	-15.2152	3.83E-47	4.50E-45	96.29722
TNFSF10	-1.11654	6.358827	-15.213	3.94E-47	4.60E-45	96.26956
CX3CL1	-1.34592	4.282181	-15.0969	1.65E-46	1.89E-44	94.8457
IGSF6	-1.11907	4.130879	-15.0781	2.08E-46	2.32E-44	94.61581
APOL1	-1.29514	6.285014	-15.0058	5.07E-46	5.59E-44	93.73294
CIITA	-1.08827	3.447376	-14.9976	5.61E-46	6.14E-44	93.63248
NCF1	-1.12414	3.585945	-14.9429	1.10E-45	1.19E-43	92.96622
MAP4K1	-1.08885	3.615022	-14.9097	1.65E-45	1.76E-43	92.56325
ITK	-1.16071	3.538305	-14.8803	2.36E-45	2.49E-43	92.2058
TFEC	-1.0093	2.852336	-14.8109	5.50E-45	5.77E-43	91.36591
LILRB1	-1.1218	3.577598	-14.7662	9.48E-45	9.89E-43	90.82556
TRBC1	-1.15323	4.324132	-14.7539	1.10E-44	1.14E-42	90.67705
TRIM22	-1.21996	5.884855	-14.7296	1.48E-44	1.52E-42	90.38481
BIRC3	-1.3359	5.67084	-14.7056	1.98E-44	2.03E-42	90.09573
C1QA	-1.41323	6.644572	-14.6984	2.16E-44	2.20E-42	90.00893
XAF1	-1.064	4.574723	-14.6928	2.31E-44	2.34E-42	89.94094
HCST	-1.12102	4.906659	-14.6739	2.90E-44	2.93E-42	89.71419
PRKCQ	-1.01174	3.333984	-14.6456	4.09E-44	4.10E-42	89.37383
DHX58	-1.00496	3.562542	-14.615	5.93E-44	5.90E-42	89.00655
ITGB7	-1.09677	3.4338	-14.6038	6.78E-44	6.68E-42	88.87282
IKZF3	-1.29399	3.540706	-14.5683	1.04E-43	1.01E-41	88.4469
PLEK	-1.26028	4.77013	-14.4681	3.47E-43	3.35E-41	87.25112
GFI1	-1.0329	2.90409	-14.3856	9.34E-43	8.90E-41	86.26976
HLA-DPA1	-1.48344	6.963538	-14.3774	1.03E-42	9.76E-41	86.17338
NLRC3	-1.09113	3.450843	-14.2959	2.72E-42	2.57E-40	85.20825
MICB	-1.09486	4.543145	-14.206	7.93E-42	7.40E-40	84.14704
C1QB	-1.45876	6.975558	-14.1872	9.91E-42	9.20E-40	83.92606
EOMES	-1.1428	3.612076	-14.153	1.48E-41	1.36E-39	83.52481
DPYD	-1.05575	4.151208	-14.0794	3.54E-41	3.19E-39	82.66165

OAS3	-1.05063	5.337618	-14.0731	3.81E-41	3.41E-39	82.58849
CD3E	-1.13604	4.364999	-14.0507	4.97E-41	4.38E-39	82.32584
P2RY13	-1.26058	3.187418	-14.0465	5.22E-41	4.58E-39	82.27775
SIGLEC1	-1.164	3.79367	-14.0415	5.53E-41	4.81E-39	82.21927
CD86	-1.04523	4.138302	-14.0373	5.82E-41	5.03E-39	82.16927
SIT1	-1.26781	3.610463	-14.0048	8.53E-41	7.23E-39	81.79033
IFIT2	-1.153	4.545695	-13.9961	9.44E-41	7.97E-39	81.68904
HLA-DPB1	-1.24918	6.86552	-13.8675	4.26E-40	3.54E-38	80.19446
AOAH	-1.0955	3.770346	-13.8234	7.12E-40	5.81E-38	79.68517
CLEC4E	-1.01132	3.035083	-13.8134	8.00E-40	6.47E-38	79.56907
ITGB2	-1.20878	4.930908	-13.8074	8.58E-40	6.91E-38	79.49982
TBC1D10C	-1.0571	3.748558	-13.7511	1.65E-39	1.28E-37	78.85092
ACP5	-1.10619	5.737338	-13.7237	2.27E-39	1.72E-37	78.53573
CD40	-1.03237	4.531851	-13.674	4.03E-39	2.97E-37	77.96486
CST7	-1.25411	4.804418	-13.6561	4.96E-39	3.63E-37	77.75864
OASL	-1.25841	4.782212	-13.593	1.03E-38	7.46E-37	77.03657
HLA-DRA	-1.32331	8.887327	-13.5849	1.13E-38	8.15E-37	76.94432
BIN2	-1.11549	3.799017	-13.573	1.29E-38	9.27E-37	76.80911
SLA	-1.01686	4.562465	-13.5669	1.39E-38	9.87E-37	76.73867
PTPRC	-1.25281	4.813935	-13.5327	2.06E-38	1.44E-36	76.34878
CD53	-1.10205	5.209922	-13.5141	2.54E-38	1.77E-36	76.13708
SECTM1	-1.14763	5.39264	-13.5054	2.81E-38	1.94E-36	76.03845
ADAMDEC1	-1.5928	4.835004	-13.4309	6.59E-38	4.54E-36	75.19282
GZMM	-1.11075	2.899223	-13.4248	7.07E-38	4.83E-36	75.12316
RASGRP1	-1.06847	4.045234	-13.424	7.13E-38	4.86E-36	75.1146
нск	-1.01422	4.53857	-13.339	1.88E-37	1.27E-35	74.15347
CCR1	-1.00579	4.570657	-13.3118	2.56E-37	1.72E-35	73.84712
PLA2G7	-1.26829	5.001209	-13.2754	3.87E-37	2.57E-35	73.43716
SLC1A3	-1.07067	3.316332	-13.2538	4.94E-37	3.26E-35	73.19512
C1QC	-1.26745	7.064372	-13.223	7.00E-37	4.59E-35	72.84923
LCP1	-1.13223	5.967788	-13.1612	1.41E-36	9.09E-35	72.15788
IFITM1	-1.20646	8.076191	-13.1564	1.49E-36	9.56E-35	72.10357
P2RY10	-1.08626	3.05838	-13.0133	7.40E-36	4.63E-34	70.51183
BST2	-1.30007	6.850634	-12.9757	1.13E-35	6.95E-34	70.09505
SASH3	-1.07753	4.703293	-12.9109	2.32E-35	1.42E-33	69.37921
CORO1A	-1.09697	5.201756	-12.823	6.15E-35	3.71E-33	68.41283
CD7	-1.05236	3.817542	-12.7083	2.18E-34	1.28E-32	67.1584
FCER1G	-1.12135	6.371534	-12.6093	6.45E-34	3.70E-32	66.08295
HLA-DOB	-1.06169	3.185148	-12.5935	7.66E-34	4.37E-32	65.91163
CXCL13	-2.18367	5.296091	-12.5497	1.24E-33	6.99E-32	65.43763
TNFAIP2	-1.03107	5.30466	-12.4823	2.57E-33	1.43E-31	64.71153
LCK	-1.09231	4.523586	-12.4418	3.99E-33	2.20E-31	64.27617
CASP1	-1.0913	5.386825	-12.4186	5.13E-33	2.79E-31	64.02712
APOC1	-1.37269	6.093299	-12.2421	3.43E-32	1.79E-30	62.14581
CTSW	-1.14301	3.436921	-12.23	3.90E-32	2.02E-30	62.01783
RSAD2	-1.24958	4.529799	-12.2186	4.41E-32	2.28E-30	61.89669
LAPTM5	-1.03957	7.050242	-12.1701	7.39E-32	3.75E-30	61.38396
FPR3	-1.15369	4.638867	-12.1659	7.73E-32	3.91E-30	61.33958
IFI44	-1.10063	5.035672	-12.1522	8.94E-32	4.51E-30	61.19512

HLA-DQB2	-1.19564	3.696556	-12.1256	1.19E-31	5.92E-30	60.91407
CMPK2	-1.03886	5.313313	-12.0827	1.87E-31	9.30E-30	60.46282
IL10RA	-1.01365	4.733931	-12.0713	2.11E-31	1.05E-29	60.34311
CD48	-1.04619	4.388943	-11.9831	5.36E-31	2.60E-29	59.42041
CCL18	-1.76165	5.533357	-11.9295	9.43E-31	4.54E-29	58.86193
TGM2	-1.02922	5.595118	-11.8185	3.02E-30	1.42E-28	57.71029
APOE	-1.28946	6.728426	-11.7887	4.11E-30	1.93E-28	57.40278
GZMK	-1.38006	3.9883	-11.7173	8.63E-30	4.00E-28	56.66841
MX1	-1.09602	5.902376	-11.7065	9.66E-30	4.45E-28	56.55726
HLA-DRB6	-1.32526	4.66653	-11.6931	1.11E-29	5.08E-28	56.42054
IFI44L	-1.36888	4.477214	-11.6419	1.88E-29	8.56E-28	55.89647
EVI2B	-1.06366	5.334309	-11.3804	2.73E-28	1.20E-26	53.24767
MNDA	-1.02138	4.627542	-11.2768	7.79E-28	3.32E-26	52.21128
SOWAHA	1.428179	4.085916	11.23307	1.21E-27	5.12E-26	51.77619
HLA-DQB1	-1.25557	5.420894	-11.2265	1.29E-27	5.45E-26	51.71059
ISG15	-1.05471	7.134546	-11.2247	1.31E-27	5.52E-26	51.69299
CCL8	-1.26084	4.198086	-11.184	1.98E-27	8.20E-26	51.28974
TCEA3	1.012944	4.844596	11.03398	8.81E-27	3.47E-25	49.811
BCL2A1	-1.14247	4.837489	-10.9986	1.25E-26	4.89E-25	49.46505
CD27	-1.11357	4.337048	-10.9985	1.25E-26	4.89E-25	49.46415
PMAIP1	-1.00701	4.749237	-10.9601	1.83E-26	7.07E-25	49.08853
CD52	-1.17849	5.816532	-10.9146	2.86E-26	1.09E-24	48.64567
FM05	1.015765	3.722771	10.76843	1.19E-25	4.40E-24	47.23269
MUC16	-1.09618	1.747865	-10.7164	1.98E-25	7.22E-24	46.73361
FAM3B	1.961208	4.921229	10.57783	7.52E-25	2.62E-23	45.41261
IL2RG	-1.07946	5.919447	-10.5497	9.84E-25	3.38E-23	45.14604
HMGCS2	2.044358	4.938481	10.54024	1.08E-24	3.69E-23	45.05678
CD163	-1.03511	4.653017	-10.4008	4.06E-24	1.33E-22	43.74501
SUCNR1	-1.10115	3.240811	-10.2724	1.36E-23	4.33E-22	42.55002
NEURL3	-1.10558	3.270631	-9.97601	2.12E-22	6.34E-21	39.83766
GUCY2C	1.688427	4.299357	9.720254	2.15E-21	6.02E-20	37.54908
CHIT1	-1.06803	2.348874	-9.67109	3.34E-21	9.24E-20	37.11474
SCNN1A	1.2684	5.12814	9.507582	1.42E-20	3.82E-19	35.68346
TFF3	1.808903	6.36527	9.38289	4.24E-20	1.09E-18	34.6056
LINC00261	1.671566	3.850185	9.322564	7.16E-20	1.80E-18	34.0884
IGHG1	-1.12929	5.281731	-9.24418	1.41E-19	3.48E-18	33.42053
VSNL1	-1.20523	3.767789	-9.11632	4.21E-19	1.01E-17	32.34135
TM4SF20	1.808621	4.250576	9.095341	5.03E-19	1.20E-17	32.16553
PROM1	1.470239	5.761914	9.06579	6.47E-19	1.52E-17	31.91839
SMIM24	1.635327	5.947574	9.041305	7.96E-19	1.86E-17	31.71414
PLEKHS1	-1.21704	4.017999	-9.03826	8.16E-19	1.90E-17	31.68879
REEP1	1.025573	3.668233	8.962791	1.54E-18	3.52E-17	31.06235
CDH17	1.848436	6.130962	8.676104	1.66E-17	3.55E-16	28.72358
MMP9	-1.09152	5.631714	-8.65634	1.94E-17	4.13E-16	28.56478
NR1I2	1.056265	3.369352	8.539228	5.03E-17	1.03E-15	27.62998
RBP4	1.387906	3.941766	8.435821	1.15E-16	2.34E-15	26.81372
ZBTB7C	1.047288	3.378303	8.413474	1.38E-16	2.77E-15	26.63846
PRAP1	1.580725	4.853674	8.373743	1.89E-16	3.76E-15	26.32784
СКВ	1.041133	5.799021	8.35812	2.14E-16	4.22E-15	26.20606

REG4	2.131133	5.907702	8.322824	2.82E-16	5.52E-15	25.93163
HLA-DQA1	-1.48851	4.91039	-8.31759	2.94E-16	5.74E-15	25.89105
NR0B2	1.181628	4.338953	8.305616	3.23E-16	6.27E-15	25.7982
AOC1	1.282527	5.98737	8.296282	3.48E-16	6.71E-15	25.72593
ERAP2	-1.00117	4.286192	-8.25253	4.91E-16	9.30E-15	25.38809
REG1A	2.45408	6.61988	8.133405	1.24E-15	2.29E-14	24.47619
TM4SF5	1.125104	5.267303	8.104982	1.54E-15	2.82E-14	24.26032
ITLN1	1.757415	4.203511	8.079021	1.89E-15	3.41E-14	24.06373
GGT6	1.229835	4.126859	8.075182	1.94E-15	3.50E-14	24.0347
CLDN3	1.553322	6.148682	8.058748	2.20E-15	3.95E-14	23.9106
TM4SF4	1.663036	4.321273	8.054771	2.27E-15	4.06E-14	23.88059
SLCO1B3	-1.26395	2.444378	-8.03629	2.62E-15	4.65E-14	23.74136
IGHM	-1.42255	6.427732	-8.03362	2.67E-15	4.74E-14	23.72123
MMP12	-1.48014	5.93987	-8.00706	3.27E-15	5.75E-14	23.52166
REG3A	2.064028	4.323832	7.978176	4.08E-15	7.08E-14	23.30532
CHI3L1	-1.10976	4.569415	-7.94182	5.38E-15	9.24E-14	23.03393
SPINK4	1.907325	4.637652	7.863413	9.72E-15	1.64E-13	22.45244
MZB1	-1.10917	4.621182	-7.84148	1.15E-14	1.92E-13	22.2907
IGHV1-69	-1.10267	3.221195	-7.76667	2.00E-14	3.29E-13	21.74195
WFDC2	1.298359	4.466244	7.766705	2.00E-14	3.29E-13	21.74221
VSIG2	1.323889	5.238353	7.761152	2.09E-14	3.43E-13	21.70165
IGLL5	-1.25481	5.886437	-7.71162	3.01E-14	4.86E-13	21.34113
PPP1R1B	1.446869	5.513268	7.640876	5.08E-14	7.98E-13	20.82976
FABP1	1.780536	3.796608	7.567355	8.68E-14	1.34E-12	20.30275
CXCL14	1.225398	5.753145	7.550701	9.80E-14	1.50E-12	20.184
SI	1.753095	3.507331	7.520345	1.22E-13	1.86E-12	19.96816
PCK1	1.2203	3.523833	7.490314	1.52E-13	2.29E-12	19.75538
MUC20	1.029919	4.240138	7.476003	1.68E-13	2.51E-12	19.65425
IGKC	-1.10027	7.627939	-7.27102	7.23E-13	1.02E-11	18.22478
SOSTDC1	1.293356	3.245767	7.20267	1.17E-12	1.62E-11	17.75604
SLC44A4	1.000074	6.120378	7.163271	1.53E-12	2.10E-11	17.48767
GSTA1	1.245838	4.737209	7.162771	1.54E-12	2.10E-11	17.48427
HEPACAM2	1.270971	3.182235	7.127144	1.97E-12	2.66E-11	17.24275
MEP1A	1.437369	3.520276	7.120024	2.07E-12	2.79E-11	17.19461
SLC39A5	1.014016	4.136339	7.113774	2.16E-12	2.90E-11	17.15239
CHP2	1.251602	2.899363	7.032034	3.79E-12	4.95E-11	16.60331
C9orf152	1.044916	5.221179	6.916676	8.28E-12	1.04E-10	15.83817
SCGB2A1	1.246862	2.840178	6.883775	1.03E-11	1.28E-10	15.62206
PGC	2.158453	6.577776	6.880866	1.05E-11	1.31E-10	15.60299
IGLV1-44	-1.15993	6.268803	-6.87654	1.08E-11	1.34E-10	15.57466
CDX1	1.427475	4.623075	6.809218	1.70E-11	2.06E-10	15.13578
ANXA13	1.114345	4.383017	6.731995	2.83E-11	3.33E-10	14.6372
DUOX2	1.356959	4.514285	6.634826	5.34E-11	6.07E-10	14.01722
CLRN3	1.127346	5.467898	6.559636	8.67E-11	9.64E-10	13.54314
TFF1	1.599723	7.972554	6.48042	1.44E-10	1.54E-09	13.04902
SERPINB2	-1.01588	2.674147	-6.24823	6.15E-10	6.10E-09	11.63259
TFF2	1.733246	6.38321	6.186997	8.96E-10	8.66E-09	11.26699
IGLV6-57	-1.02998	4.487879	-6.14619	1.15E-09	1.09E-08	11.02518
FOLR1	1.00057	3.658	6.089129	1.62E-09	1.51E-08	10.68959

SST	1.230545	3.41636	6.03486	2.24E-09	2.05E-08	10.3731
AKR1B10	1.429791	6.07492	5.876195	5.73E-09	4.86E-08	9.462895
MUC6	1.325998	4.297497	5.873972	5.80E-09	4.91E-08	9.450306
KRT20	1.52244	4.916111	5.795889	9.13E-09	7.50E-08	9.01083
CHGA	1.072955	3.729114	5.778185	1.01E-08	8.23E-08	8.911945
SLC6A14	-1.11978	4.735673	-5.72461	1.37E-08	1.09E-07	8.614453
PCSK1N	1.03438	4.17106	5.708727	1.50E-08	1.19E-07	8.526745
FAM3D	1.030764	5.645195	5.640296	2.21E-08	1.70E-07	8.151506
PSCA	1.397946	5.06099	5.433306	6.96E-08	4.89E-07	7.042353
AGR3	1.033655	6.608379	5.301997	1.41E-07	9.41E-07	6.358992
GKN1	1.658028	4.561589	4.897706	1.13E-06	6.45E-06	4.354491
GKN2	1.370019	4.169295	4.848052	1.45E-06	8.07E-06	4.118723
ADH1C	1.055051	5.590649	4.740801	2.44E-06	1.30E-05	3.617301
MUC5AC	1.119009	4.903346	4.660829	3.58E-06	1.85E-05	3.250387
MAGEA6	1.193754	3.187223	4.57933	5.26E-06	2.61E-05	2.882621
LIPF	1.347958	4.557164	4.157699	3.49E-05	0.000146	1.079622
OLFM4	1.249237	7.033496	3.86787	0.000117	0.000435	-0.06224