Supplementary Tables

Table S1 Summary of TCGA and 11 validation LUAD datasets included in this study

Datasets	Platforms	Sample size
TCGA	Illumina RNAseq HTSeq	499
GSE72094	Rosetta/Merck Human RSTA Custom Affymetrix 2.0 microarray	398
GSE68465	Affymetrix Human Genome U133A Array	442
GSE50081	Affymetrix Human Genome U133 Plus 2.0 Array	127
GSE42127	Illumina HumanWG-6 v3.0 expression beadchip	132
GSE41271	Illumina HumanWG-6 v3.0 expression beadchip	181
GSE31210	Affymetrix Human Genome U133 Plus 2.0 Array	226
GSE30219	Affymetrix Human Genome U133 Plus 2.0 Array	85
GSE13213	Agilent-014850 Whole Human Genome Microarray 4x44K G4112F	117
GSE26939	Agilent-UNC-custom-4X44K	115
GSE11969	Agilent Homo sapiens 21.6K custom array	90
GSE81089	Illumina HiSeq 2500	106
Total		2518

Table S2 Feature genes for 28 immunocyte subtypes

Immunocyte subtype	Genes
Activated CD4 T cell	AIM2, BIRC3, BRIP1, CCL20, CCL4, CCL5, CCNB1, CCR7, DUSP2, ESCO2, ETS1, EXO1, EXOC6, IARS, ITK, KIF11, KNTC1, NUF2, PRC1, PSAT1, RGS1, RTKN2, SAMSN1, SELL, TRAT1
Activated CD8 T cell	ADRM1, AHSA1, C1GALT1C1, CCT6B, CD37, CD3D, CD3E, CD3G, CD69, CD8A, CETN3, CSE1L, GEMIN6, GNLY, GPT2, GZMA, GZMH, GZMK, IL2RB, LCK, MPZL1, NKG7, PIK3IP1, PTRH2, TIMM13, ZAP70
Activated dendritic cell	ABCD1, C1QC, CAPG, CCL3L3, CD207, CD302, ATP5B, ATP5L, ATP6V1A, BCL2L1, C1QB, SNURF, SPCS3, CCNA1, CEACAM8, NOS2, SRA1, TNFRSF6B, TREM1, TREML1, RHOA, SLC25A37, TNFSF14, TREML4, VNN2, XPO6, CLEC4C, TNFAIP2, UBD, ACTR3, RAB1A, SLA, HLA-DQA2, SIGLEC5, SLAMF9
CD56bright natural killer cell	ABAT, C11orf75, C5orf15, CDHR1, DCAF12, DYNLL1, GPR137B, HCP5, HDGFRP2, KRT86, MLST8, ELMOD3, ENTPD5, FAM119A, FAM179A, CLIC2, COX7A2L, CREB3L4, CSF1, CSNK2A2, CSTA, CSTB, CTPS, CTSD, FST, GATA2, GMPR, HDC, HEY1, HOXA1, HS2ST1, HS3ST1, BCL11B, CDH3, MYL6B, NAA16, ClQA, ClQB, CYP27B1, EIF3M
Central memory CD4 T cell	ABHD3, AHNAK, ANXA2P2, AQP3, ATHL1, BMI1, BZW2, CD63, COL4A1, CYLD, ELMO2, FYN, GLIPR1, GSS, IFITM2, ITGB1, ITGB2, KLF5, LSP1, NDUFB9, PKM2,

	SFXN3, SIRPG, SMAD4, STX4, TRADD, VIM, XRCC6
Central memory CD8 T cell	ACTN4, ADAM12, ADCY9, F13A1, FCER1G, FCGR3B, FGF7, FKBP4, GLUD1, GM2A, GUSB, IL1RN, NOL11, NTRK1, RARA, RNF128, SIGLEC1, TNFRSF11A, TOX4, UBA52, ULBP1
Effector memeory CD4 T cell	ATM, CASP3, CASQ1, CD300E, DARS, DOCK9, EXOSC9, EZH2, GDE1, IL34, NCOA4, NEFL, PDGFRL, PTGS1, REPS1, SCG2, SDPR, SIGLEC14, SIGLEC6, TAL1, TFEC, TIPIN, TPK1, UQCRB, USP9Y, WIPF1, ZCRB1
Effector memeory CD8 T cell	ACAP1, APOL3, ARHGAP10, ATP10D, C3AR1, CCR5, CD160, CD55, CFLAR, CMKLR1, DAPP1, FCRL6, FLT3LG, GZMM, HAPLN3, HLA-DMB, HLA-DPA1, HLA-DPB1, IFI16, LIME1, LTK, NFKBIA, SETD7, SIK1, TRIB2
Natural killer cell	AKT3, AXL, BST2, CDH2, CRTAM, CSF2RA, CTSZ, CXCL1, CYTH1, DAXX, DGKH, DLL4, DPYD, ERBB3, F11R, FAM27A, FAM49A, FASLG, FCGR1A, FN1, FSTL1, FUCA1, GBP3, GLS2, GRB2, LST1, BCL2, CDC5L, FGF18, FUT5, FZR1, GAGE2, IGFBP5, KANK2, LDB3
Natural killer T cell	BTN2A2, CD101, CD109, CNPY3, CNPY4, CREB1, CRTC2, CRTC3, CSF2, KLRC1, FUT4, ICAM2, IL32, LAMP2, LILRB5, KLRG1, HSPA4, HSPB6, ISM2, ITIH2, KDM4C, KIR2DS4, KIRREL3, SDCBP, NFATC2IP, MICB, KIR2DL1, KIR2DL3, KIR3DL1, KIR3DL2, NCR1, FOSL1, TSLP, SLC7A7, SPP1 TREM2, UBASH3A, YBX2, CCDC88A, CLEC1A, THBD, PDPN, VCAM1, EMR1
Type 1 T helper cell	CD70, TBX21, ADAM8, AHCYL2, ALCAM, B3GALNT1, BBS12, BST1, CD151, CD47, CD48, CD52, CD53, CD59, CD6, CD68, CD7, CD96, CFHR3, CHRM3, CLEC7A, COL23A1, COL4A4, COL5A3, DAB1, DLEU7, DOC2B, EMP1, F12, FURIN, GAB3, GATM, GFPT2, GPR25, GREM2, HAVCR1, HSD11B1, HUNK, IGF2, RCSD1, RYR1, SAV1, SELE, SELP, SH3KBP1, SIT1, SLC35B3, SIGLEC10, SKAP1, THUMPD2, TIGIT, ZEB2, ENC1, FAM134B, FBXO30, FCGR2C, STAC, LTC4S, MAN1B1, MDH1, MMD, RGS16, IL12A, P2RX5, CD97, ITGB4, ICAM3, METRNL, TNFRSF1A, IRF1, HTR2B, CALD1, MOCOS, TRAF3IP2, TLR8, TRAF1, DUSP14
Type 17 T helper cell	IL17A, IL17RA, C2CD4A, C2CD4B, CA2, CCDC65, CEACAM3, IL17C, IL17F, IL17RC, IL17RE, IL23A, ILDR1, LONRF3, SH2D6, TNIP2, ABCA1, ABCB1, ADAMTS12, ANK1, ANKRD22, B3GALT2, CAMTA1, CCR9, CD40, GPR44, IFT80
CD56dim natural killer cell	CYP27A1, DDX55, DYRK2, RPL37A, NOTCH3, AKR7A3, GPRC5C, GRIN1, HLA-E, PORCN, PSMC4, UPP1, IL21R,

	KIR2DS1, KIR2DS2, KIR2DS5
Immature dendritic cell	ACADM, AHCYL1, ALDH1A2, ALDH3A2, ALDH9A1, ALOX15, AMT, ARL1, ATIC, ATP5A1, CAPZA1, LILRA5, RDX, RRAGD, TACSTD2, INPP5F, RAB38, PLAU, CSF3R, SLC18A2, AMPD2, CLTB, C1orf162
Macrophage	AIF1, CCL1, CCL14, CCL23, CCL26, CD300LB, CNR1, CNR2, EIF1, EIF4A1, FPR1, FPR2, FRAT2, GPR27, GPR77, RNASE2, MS4A2, BASP1, IGSF6, HK3, VNN1, FES, NPL, FZD2, FAM198B, HNMT, SLC15A3, CD4, TXNDC3, FRMD4A, CRYBB1, HRH1, WNT5B
MDSC	CCR2, CD14, CD2, CD86, CXCR4, FCGR2A, FCGR2B, FCGR3A, FERMT3, GPSM3, IL18BP, IL4R, ITGAL, ITGAM, PARVG, PSAP, PTGER2, PTGES2, S100A8, S100A9
Neutrophil	CREB5, CDA, CHST15, S100A12, APOBEC3A, CASP5, MMP25, HAL, C1orf183, FFAR2, MAK, CXCR1, STEAP4, MGAM, BTNL8, CXCR2, TNFRSF10C, VNN3
Plasmacytoid dendritic cell	CBX6, DAB2, DDX17, HIGD1A, IDH3A, IL3RA, MAGED1, NUCB2, OFD1, OGT, PDIA4, SERTAD2, SIRPA, TMED2, ENG, FCAR, IGF1, ITGA2B, GABARAP, GPX1, KRT23, PROK2, RALB, RETNLB, RNF141, SEC14L1, SEPX1, EMP3, CD300LF, ABTB1, KLHL21, PHRF1
Regulatory T cell	CCL3L1, CD72, CLEC5A, FOXP3, ITGA4, L1CAM, LIPA, LRP1, LRRC42, MARCO, MMP12, MNDA, MRC1, MS4A6A, PELO, PLEK, PRSS23, PTGIR, ST8SIA4, STAB1
Type 2 T helper cell	ASB2, CSRP2, DAPK1, DLC1, DNAJC12, DUSP6, GNAI1, LAMP3, NRP2, OSBPL1A, PDE4B, PHLDA1, PLA2G4A, RAB27B, RBMS3, RNF125, TMPRSS3, GATA3, BIRC5, CDC25C, CDC7, CENPF, CXCR6, DHFR, EVI5, GSTA4, HELLS, IL26, LAIR2
Activated B cell	ADAM28, CD180, CD79B, BLK, CD19, MS4A1, TNFRSF17, IGHM, GNG7, MICAL3, SPIB, HLA-DOB, IGKC, PNOC, FCRL2, BACH2, CR2, TCL1A, AKNA, ARHGAP25, CCL21, CD27, CD38, CLEC17A, CLEC9A, CLECL1
Eosinophil	GIPR, KRT18P50, LRMP, FOSB, RRP12, GPR183, NR4A3, ST3GAL6, DEPDC5, PDE6C, PKD2L2, GPR65, IL5RA, P2RY14, DACH1, DAPK2, EMR3
Gamma delta T cell	ACP5, AQP9, BTN3A2, C1orf54, CARD8, CCL18, CD209, CD33, CD36, CDK5, IL10RB, KLRF1, LGALS1, MAPK7, KLHL7, KRT80, LAMC1, LCORL, LMNB1, MEIS3P1, MPL, FABP1, FABP5, FADD, MFAP3L, MINPP1, RPS24, RPS7, RPS9, DBNL, CCL13
Immature B cell	CD22, CYBB, FAM129C, FCRL1, FCRL3, FCRL5, FCRLA, HDAC9, HLA-DQA1, HVCN1, KIAA0226, NCF1, NCF1B, P2RY10, SP100, TXNIP, STAP1, TAGAP, ZCCHC2

Mast cell	ADAMTS3, CPA3, CMA1, CTSG, ARHGAP15, CPM, FCN1, FTL, HSPA6, ITGA9, RNASE3, S100A4, SIGLEC8, SLC6A4, PTGS2, EGR3, PILRA
Memory B cell	AICDA, CCNA2, CDKN3, CLCN5, ENPP1, FCER1A, FCRL4, MYC, RUNX2, SORL1, SOX5, STAT5A, STAT5B, TLR9
Monocyte	ASGR2, CFP, ASGR1, CD1D, UPK3A, ACTG1, ANXA5, ATP6V1B2, CFL1, DAZAP2, CTBS, EMR4P, HIVEP2, MARCKSL1, MBP, MMP15, PNPLA6, TMBIM6, PQBP1, TEX264, IKZF1
T follicular helper cell	B3GAT1, CDK5R1, PDCD1, BCL6, CD200, CD83, CD84, FGF2, GPR18, CEBPA, CECR1, CLEC10A, CLEC4A, CSF1R, CTSS, DMN, DPP4, LRRC32, MC5R, MICA, NCAM1, NCR2, NRP1, PDCD1LG2, PDCD6, PRDX1, RAE1, RAET1E, SIGLEC7, SIGLEC9, TYRO3, CHST12, CLIC3, IVNS1ABP, KIR2DL2, LGMN

Table S3 Specific feature genes for six representative immune-related signatures

Immune signatures	Genes
Cytolytic activity	GZMA, PRF1
T cell inflamed signature	CD274, CD276, CCL5, CD27, CD8A, CMKLR1, CXCL9, CXCR6, IDO1, LAG3, NKG7, PDCD1LG2, PSMB10, HLA-DQA1, HLA-DRB1, HLA-E, STAT1, TIGIT
Immune cells signature	LCP2, LSP1, FYB, PLEK, HCK, IL10RA, LILRB1, NCKAP1L, LAIR1, NCF2, CYBB, PTPRC, IL7R, LAPTM5, CD53, EVI2B, SLA, ITGB2, GIMAP4, MYO1F, HCLS1, MNDA, IL2RG, CD48, AOAH, CCL5, LTB, GMFG, GIMAP6, GZMK, LST1,GPR65, LILRB2, WIPF1, CD37, BIN2, FCER1G, IKZF1, TYROBP, FGL2, FLI1, IRF8, ARHGAP15, SH2B3, TNFRSF1B, DOCK2, CD2, ARHGEF6, CORO1A, LY96, LYZ, ITGAL, TNFAIP3, RNASE6, TGFB1, PSTPIP1, CST7, RGS1, FGR, SELL, MICAL1, TRAF3IP3, ITGA4, MAFB, ARHGDIB, IL4R, RHOH, HLA-DPA1, NKG7, NCF4, LPXN, ITK, SELPLG, HLA-DPB1, CD3D, CD300A, IL2RB, ADCY7, PTGER4, SRGN, CD247, CCR7, MSN, ALOX5AP, PTGER2, RAC2, GBP2, VAV1, CLEC2B, P2RY14, NFKBIA, S100A9, IFI30, MFSD1, RASSF2, TPP1, RHOG, CLEC4A, GZMB, PVRIG, S100A8, CASP1, BCL2A1, HLA-E, KLRB1, GNLY, RAB27A, IL18RAP, TPST2, EMP3, GMIP, LCK, IL32, PTPRCAP, LGALS9, CCDC69, SAMHD1, TAP1, GBP1, CTSS, GZMH, ADAM8, GLRX, PRF1, CD69, HLA-B, HLA-DMA, CD74, KLRK1, PTPRE, HLA-DRA, VNN2, TCIRG1, RABGAP1L, CSTA, ZAP70, HLA-F, HLA-G, CD52, CD302, CD27
Immune cell	CD1C, CD2, CD3E, CD3D, CD3G, CD6, CD7, CD8A, CD8B,

subsets	CD19, CD20, NKG7, KLRD1, KLRC1, KIR2DL4, CD24, CD38
Immune signaling molecules	SH2D1A, TIGIT, PTPRCAP, LAX1, SPIB, SLAMF1, TCL1A, TRAT1, THEMIS, LCK, SIT1, HSH2D, ITK, PTPRC, ZAP70, CRTAM, TIMD4, SIRPG, SLA2, DC247, TBX21, RHOH, HSH2D, TBET, POU2AF1, BLK, PAX5, BANK1, STAP1, IKZF3, TNFRSF17, MS4A1, SPIB, AIM2, SKAP1, IFI27, NLRP2, ZBP1, TIBAB, GZMA, CHIT1, MMP12, HAMP, ERAP2, MARCO, GBP5, SLAMF6, KLRK1, LILRA4, SLAMF7, CHI3L1, GZMB, GZMH, GZMK
Cytokines chemokines	IFNG, FDCSP, CXCL9, CXCL10, CXCL11, CXCL13, CCL21, CCL19, CCL7, XCL1, XCL2, CCR4, CXCR5, CXCR3, DARC, IL7R, IL21R, IL22RA2

Table S4 Results of univariate Cox regression analysis of 1433 aging-related genes in the TCGA LUAD cohort

Gene symbol	Univariate P values
PLEKHB1	0.00000624
LINGO2	0.00000878
GNG7	0.0000135
C1QTNF6	0.0000188
MS4A1	0.0000435
VIPR1	0.000128346
CCR2	0.000147095
FAM129C	0.000147911
DAAM2	0.00015616
B3GALT2	0.000179708
CACNA2D2	0.000183106
P2RX1	0.00019079
TLR10	0.000210988
LY9	0.000274904
TNFRSF13B	0.000354089
NPC2	0.000409174
MAL	0.000421795
BLK	0.000435058
DSC1	0.00054327
TTC16	0.000558204
SFTPD	0.0005585
KYNU	0.000581635
ZNF10	0.000590204
USP44	0.000591267
DPYSL2	0.000591549
ATF7IP2	0.000604785
ITGA6	0.000610519

CD19	0.000620147
TCTA	0.000643956
KLRB1	0.000667806
IGJ	0.000687277
FKBP4	0.000823854
CD5	0.000837366
FCRLA	0.000866259
CR2	0.001044116
ARRB1	0.001045249
FCRL6	0.001070907
CD79A	0.001237289
BTLA	0.001292849
ADHFE1	0.001351122
CD79B	0.001416351
PTGDS	0.001453168
FAIM3	0.00151107
IL1R2	0.00156774
GAB3	0.001572036
RASGRP2	0.001608886
TESPA1	0.001663689
ADRB2	0.001707073
MOAP1	0.001804728
CCR6	0.001834608
PTTG1	0.00183956
CX3CR1	0.002130313
DNASE1L3	0.002156849
ARHGAP15	0.002285445
MTUS1	0.002471276
ZNF101	0.002714399
TMEM8B	0.002818007
YPEL1	0.002842328
CD22	0.002856929
PARM1	0.002875863
CTSG	0.00297405
TCN1	0.003004252
ST6GALNAC6	0.003131288
ZNF439	0.003221424
CCR7	0.003232164
TSPYL2	0.003328419
PEBP1	0.003341407
CCT6A	0.003345605
OPN3	0.003368409
RCAN2	0.003389634
SMARCD3	0.003412338

USP4	0.003680677
NMUR1	0.003697113
ITK	0.003740544
CXCR6	0.003911085
CLEC2D	0.003997374
KLHL6	0.004013961
DBP	0.004260786
ADCY9	0.004293351
ITGAL	0.004416385
PTGDR	0.004606103
ZNF154	0.004787832
TNFRSF17	0.004831515
ENPP4	0.004899477
ZNF470	0.004994507
SPIB	0.005037701
POU2AF1	0.005221178
IRF8	0.005648743
SUSD3	0.005908179
PIK3CG	0.006224634
MCOLN2	0.006508228
AKTIP	0.006560923
PPP1R3E	0.007064409
NELL2	0.007137477
SALL2	0.007330019
FAM159A	0.007339304
RIPK2	0.007383095
TAGAP	0.007459373
SLCO4C1	0.007469142
TLE2	0.007644444
ARSG	0.007769271
NEDD9	0.007906078
LPAR6	0.008039047
PYHIN1	0.00811632
RPS6KA1	0.008129051
ELOVL6	0.008217624
PIK3IP1	0.008397116
MAP3K3	0.008436606
TCEA3	0.008625944
BANK1	0.008910869
ZNF671	0.009072556
EIF2AK3	0.009143768
NME8	0.009385979
CD27	0.009882405
LPCAT1	0.009980538

GPR18	0.01002416
PMEPA1	0.010604679
AFF3	0.010636673
KCNG1	0.010637522
PAICS	0.011071547
CD37	0.011098552
C3orf62	0.011118378
ANKRD13A	0.011297551
HVCN1	0.011550954
GIMAP7	0.011572941
UBASH3A	0.011688442
APOBEC3H	0.011734011
CPEB3	0.011759014
CTSW	0.011877576
ITGB1	0.01208691
TRIM38	0.012233629
C2orf40	0.012398045
RORC	0.012413037
DSC2	0.012744974
SIRT4	0.013306534
TOX	0.013310896
SLAIN1	0.013463557
CD28	0.013718603
SNRPN	0.014785693
EPHX2	0.014787758
IL7R	0.01481129
CD3D	0.014829874
LTB	0.015086154
SORT1	0.015164562
TTC39B	0.01551703
BCAS4	0.01634137
RASSF4	0.016505714
VPREB3	0.016668114
P2RY10	0.016704757
PLCB2	0.016769867
ABCA6	0.017222033
LCK	0.017591097
CYCS	0.018169382
CCDC34	0.018510172
TP53I3	0.018602367
LAT	0.018753191
SFXN2	0.018909748
MRI1	0.019018931
TRAT1	0.01924264

C1orf21	0.01930535
FCGBP	0.01967675
CKAP4	0.020145746
ZSCAN18	0.020234973
ITPKB	0.020239956
BEX2	0.020497019
CXCR5	0.020742831
SETBP1	0.020924808
ID2	0.021113668
MTSS1	0.021183318
PLAUR	0.021612653
SLAMF6	0.022449188
ENTPD1	0.022458717
MFNG	0.022720387
AGMAT	0.022781658
FAM153B	0.022944663
IL10RA	0.022977348
GOLM1	0.023041477
MAN1C1	0.023366239
HNMT	0.023779644
ST6GAL1	0.024049014
RIPK3	0.024115651
CYB5A	0.024507188
CD96	0.024674005
TTLL3	0.026002989
HSPD1	0.026240596
SESN1	0.026805797
LPGAT1	0.027140016
TMX4	0.027426429
CPA5	0.027625403
TRIM28	0.028272386
PTPN7	0.028468915
AXIN2	0.02883401
RBL2	0.02902046
S100A10	0.029380511
MAGEE1	0.029488597
SYT11	0.029997668
PNOC	0.030409528
MIF	0.030421444
HP	0.030742052
SCIMP	0.031189602
DPP4	0.031449726
TSGA10	0.031563783
NT5E	0.031863303

CD3E	0.032085069
CD84	0.032199413
EPG5	0.03265129
KIAA0922	0.032672605
RGCC	0.033857897
ZNF175	0.034388646
TCN2	0.034643299
GIMAP5	0.034865687
CALCOCO1	0.035016724
SPRY1	0.035021663
RAB37	0.035756062
RALGDS	0.035848622
MR1	0.036002378
TK2	0.036247004
SATB1	0.036613184
AHSA1	0.036781951
LBH	0.037053179
ICOS	0.037210459
EOMES	0.037491973
ZNF337	0.038334567
ABCB1	0.038338698
SEL1L3	0.038481107
GPR114	0.039101469
CEBPA	0.039651321
CD244	0.040815988
MCCC1	0.040827961
EVL	0.040857808
COBLL1	0.041509242
PTK2B	0.042064029
PPP2R2B	0.042087158
LUC7L	0.042127604
TCL1A	0.042135356
FGR	0.042511035
PLEK	0.042542361
SLC9A9	0.0426245
CHI3L2	0.042716285
LILRB1	0.042824055
LRRN3	0.04295568
JAKMIP1	0.043320457
NUCB2	0.043346671
NLRP3	0.043847267
WDR4	0.044201546
RAD54B	0.044690105
NIPAL3	0.045968197

MBOAT1	0.046665817
ZBED5	0.046897658
PDCD4	0.046947744
NCAM1	0.047690247
ALOX5AP	0.048254
PLCG1	0.048342141
PLEKHF1	0.04861097
SH3YL1	0.049591303
BCL11B	0.049901544
PPAT	0.050315951
ASCL2	0.050382189
HCG27	0.05073459
RHOC	0.050842265
IQCG	0.051253516
TNF	0.051389206
LDLRAP1	0.051534174
P2RX7	0.051568791
ANXA2	0.051730848
BZW2	0.051741444
CAMK4	0.051755595
MZB1	0.052493066
WDR59	0.054445442
ACVR2A	0.054658177
KIAA1147	0.055284428
F13A1	0.055295661
CLDND2	0.055542669
SPOCK2	0.055817377
HIST1H3H	0.055818742
GFI1	0.056274258
ZNF573	0.056773119
ELP2	0.057339947
LEF1	0.057355584
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ACSL1	0.060607903
CCDC170	0.062345901
CCT4	0.062507368
HSD17B8	0.062791272
CST7	0.062945279
FUCA2	0.064388478
LTA	0.064811425
FGL2	0.065229592
IL12RB1	0.065863946

FASLG	0.066660871
FCGR2B	0.067329291
NAA16	0.067636382
ZBP1	0.067861269
CACYBP	0.068197487
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CCT2	0.068565089
GPR97	0.068764044
CYB561	0.068854878
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TNFAIP6	0.06924501
ANP32B	0.069353189
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ZEB2	0.069942567
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OAS1	0.071563775
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GAS7	0.073016751
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CD8B	0.08146778
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BPI	0.088194979
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SIRPG	0.088893331
SLC25A20	0.089531125
TBXAS1	0.090544007
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ARHGAP24	0.092118967
SLC4A4	0.092210022
ABI3	0.092593364
TBRG4	0.092819571
C1orf162	0.095357022
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WDFY2	0.098798254
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ATP6V0E2	0.099322902
SLAMF7	0.100082347
REPS2	0.100733665
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FANCA	0.103033796
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CSF1R	0.16963385
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CAPNS1	0.170453707
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STIP1	0.174184776
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YTHDF1	0.185568154
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HDAC2	0.206957485
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SERPINE2	0.209887539
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RRS1	0.224875937
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ANAPC16	0.22534194
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C10orf2	0.226932689
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MAFB	0.237319329
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BCL6	0.238635294
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SPON2	0.264215837
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OXNAD1	0.281034501
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AUTS2	0.284712836
RASGRP3	0.284742944
LYRM4	0.285008876
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C5orf51	0.299486959
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PARP8	0.311629956
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METRNL	0.333910359
RBPJ	0.334409867
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ARF3	0.339125045
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FOXD2	0.341381545
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C1orf216	0.34326666
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UBAP2	0.367756104
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MTRF1	0.369447481
SMARCA1	0.370270565
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DIRC2	0.379567122
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RARRES3	0.382992149
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VARS	0.387203908
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PDK4	0.388645161
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VAMP3	0.39052066
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MAF	0.448012461
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FAR2	0.457465967
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PPA1	0.490564091
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CSRP1	0.510497436
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MAP3K5	0.524039445
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LARS2	0.532251186
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PARP9	0.538244212
SNTB2	0.540413643
MAPK14	0.541216025
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RPS23	0.543222964

NKG7	0.544198947
FAM13A	0.544290114
LILRA5	0.54436829
MFGE8	0.545897147
SLFN11	0.547935467
NDST1	0.549614867
MSH6	0.550344154
RPL4	0.552601096
ERCC6L2	0.55669759
OBSCN	0.557637996
POLG2	0.558382426
S100A8	0.559839091
TGFBR3	0.560395122
NGDN	0.560868334
ZNF302	0.560932683
CCDC50	0.563585794
MAD2L2	0.565553047
USP13	0.56733719
MTA3	0.568247472
MORC2	0.568261827
PDCL3	0.569493673
TMEM220	0.569682988
PHC2	0.570632587
NRIP1	0.571937329
MRTO4	0.572518299
THBS1	0.573862317
ZNF256	0.574830164
C11orf1	0.575077677
IFNG	0.576002025
PSAT1	0.579206472
PPIL1	0.579283327
DAP3	0.580030261
HAPLN3	0.580467645
TRIB1	0.580650221
ASGR2	0.580707718
LARP1B	0.580909087
KIAA0355	0.582305278
ELOVL4	0.583891172
NBEAL2	0.584161054
BAG3	0.586321454
PTPN13	0.586407767
ILF2	0.587022901
PARP14	0.587791288
EIF2D	0.587995021

SH2D2A	0.588155344
EIF3L	0.590597115
LAPTM4B	0.590700648
PJA1	0.591156008
TDP1	0.592008583
GPX7	0.592427916
PRMT3	0.59310601
TSPAN2	0.594452413
ROPN1L	0.595247023
CYFIP1	0.596155181
MAGED1	0.596393239
RPSAP58	0.596624372
NGLY1	0.597608884
EXOSC8	0.598252595
ORC5	0.603114683
POLE3	0.603999761
FBXO10	0.604183442
ARHGAP26	0.604302302
MT1E	0.605199737
NAT10	0.605542116
MAP3K4	0.606018996
SREBF1	0.606891773
YIPF1	0.60705497
SLFN13	0.607416804
DPH2	0.607948578
CD97	0.608048206
ABHD5	0.609966239
WDR12	0.610030809
MATN2	0.612965895
B4GALT5	0.614277356
MPHOSPH10	0.614590814
TCF3	0.614941769
SLC7A7	0.616160657
NOB1	0.616826606
TMEM156	0.61706325
PRKRA	0.617242237
IRF1	0.618008066
RSL1D1	0.618403746
ZNF706	0.618713107
RPS18	0.619303257
POLR1E	0.620306403
ZNF480	0.620400624
UBTF	0.620523218
BLOC1S1	0.624486753

CSTF3	0.625902119
RBM14	0.626730849
KLF12	0.628131446
GOLGA3	0.628634904
RPS2	0.63040019
TRAPPC6A	0.632630774
MARS2	0.633386416
RBFA	0.634183811
ESYT1	0.63473765
EEF2	0.635733127
APBA2	0.636542246
GYG1	0.638321594
ZNF135	0.638516579
DRAXIN	0.640902888
ZNF830	0.641593619
ZEB1	0.641667646
NDFIP1	0.645595047
URI1	0.64619699
LCMT2	0.647824347
CEP135	0.649756164
STAT2	0.652108698
PRPSAP2	0.655680679
RBM17	0.65618872
FAM213A	0.65626931
BCL9	0.657748272
CLNS1A	0.658083759
CAST	0.658531618
ITM2C	0.658953721
PAK1IP1	0.659040324
RPL28	0.660545019
WDR74	0.662389327
ANXA2R	0.6624619
SPPL2A	0.664455169
CDKN1C	0.665445604
ABLIM1	0.665449914
HMOX1	0.665644742
GPR68	0.666713706
TSPO	0.668819141
HLTF	0.669659494
NONO	0.670205423
TOMM70A	0.674847441
PGRMC2	0.675277126
LCLAT1	0.677543366
EMP1	0.679147991

VPS51	0.67994748
C12orf57	0.680034627
THAP11	0.681820534
GLTSCR2	0.685046615
SRBD1	0.685520746
BRIX1	0.685878584
ABCF1	0.68624997
TMEM123	0.686418174
NREP	0.687061277
BTBD11	0.689043897
PDGFD	0.689114159
GABARAPL1	0.68943038
KLF6	0.690128896
TPP2	0.692637328
RPL8	0.692683839
RPAP2	0.692749668
UBAC1	0.696119955
IMPDH2	0.69632431
HERPUD2	0.696337657
HMGN1	0.69736392
HNRNPH3	0.698052222
TRAP1	0.698683432
SOX13	0.698860357
STX6	0.699377625
PASK	0.699672942
ZNF30	0.699804576
SMARCC1	0.700345232
ZFAND1	0.701791208
RPL19	0.702375309
USP11	0.703061343
EIF4G3	0.704217775
ACAA2	0.705002014
ABHD3	0.705152349
NRG1	0.705230895
ANAPC1	0.705607429
AGPAT4	0.705629481
SH2D1B	0.7069264
TMEM230	0.710354962
RPL17	0.710577146
TCIRG1	0.710985346
SAMD9L	0.713222719
EMP3	0.713431019
WRN	0.714557473
FAM134B	0.71456295

SRFBP1	0.71521545
MSH2	0.715399274
KDM1A	0.71543719
NHP2L1	0.716220739
PRR5L	0.717967491
CMTM3	0.719400116
EPHA1	0.719604503
BIVM	0.719982369
GP6	0.720040728
IPO4	0.722037894
IDH1	0.722996814
ACADM	0.724917559
BLMH	0.72578038
PRMT6	0.726755184
RAP1GAP2	0.727365121
MRPS18B	0.730748409
N6AMT2	0.731836062
ABCF2	0.733952603
GK5	0.734036359
RPUSD2	0.734220867
ZNF365	0.734337525
NOA1	0.734968797
RNASE2	0.735704841
IMP3	0.736639542
TCTN3	0.736972258
GRPEL2	0.737332528
QSOX2	0.737561431
MRPL45	0.737880448
NLRP12	0.742401798
LSM2	0.742749445
SFXN4	0.743573984
POLR3H	0.743633196
PROS1	0.744258707
KIAA0586	0.744708411
SORCS3	0.744849095
ZNF22	0.745234413
ATP2B4	0.745325382
UBE2D2	0.746755489
ZNF121	0.746825576
TSPAN13	0.746889463
TSPYL5	0.747265712
BNIP3	0.751434261
ZNF260	0.751677714
ARHGAP19	0.754949642

ZNF827	0.757332085
CLPP	0.757894193
TPST1	0.758106846
EBP	0.766471149
PIGN	0.766693314
BOD1	0.767154
SSH1	0.768195951
TSEN2	0.768544302
LRPPRC	0.76884842
CIAPIN1	0.769216473
GCNT1	0.770578235
GEMIN4	0.771743086
LGR6	0.772933342
USP47	0.773678659
LRRFIP2	0.777737488
CHN1	0.778202981
GLA	0.77854301
MSC	0.779139775
ATP5L	0.780454006
CALML4	0.782639197
TBC1D2	0.78273096
TIGD7	0.782848453
HSP90AB1	0.783333343
SYNE2	0.78418415
VPS33A	0.784434184
FUT8	0.784490499
CEP41	0.785869085
PIGP	0.786024399
DCK	0.787865972
VAV3	0.79320582
RPSA	0.79402995
FAM43A	0.795875199
NOC3L	0.796283363
APEX1	0.796889103
NAGA	0.798732411
MFSD10	0.799325784
TMEM99	0.799507863
ANXA5	0.799954148
ALKBH2	0.800387473
MRPL24	0.800609405
AKR1B1	0.801896882
NET1	0.80245714
NSUN5	0.802866347
GZMB	0.803418595

IPO11	0.808154459
NOSIP	0.808284942
AKR1C3	0.809532371
ADAMTSL4	0.809930448
KDSR	0.810286011
STOM	0.8113429
GSTO1	0.812485344
IFIT3	0.812541297
RPL27A	0.812864219
CD7	0.814068799
RPS20	0.814705463
DHPS	0.815496976
LARS	0.816930945
SDCCAG3	0.817096331
MRPS33	0.818975011
TMEM209	0.821136708
EBF1	0.822521379
XPO4	0.823777231
PFKFB4	0.824094564
TAGLN	0.824403326
TCF7	0.824488447
SYPL1	0.824853452
CHCHD10	0.825432289
TRIM44	0.827451899
MRPL35	0.82843989
PHTF1	0.828970963
GALC	0.829223276
MYD88	0.829385901
MYL6	0.829779657
NUP160	0.830504394
ZNF567	0.831127984
CD58	0.83178799
PPAN	0.832294864
CD151	0.832775766
PTPLAD1	0.833336586
BACH2	0.834497517
CDC16	0.835242272
SGPL1	0.836881584
RPS6KB1	0.841132945
PCSK5	0.841387792
RPL18	0.841418692
MGAM	0.841996083
EEF1B2	0.843238103
KIAA0020	0.843872326

QSOX1	0.84403826
NACC2	0.844543254
CTSC	0.844637336
RPS29	0.845363856
ZNF239	0.845462214
DHRS9	0.845485046
TTC27	0.846756934
METAP2	0.847552968
NUAK1	0.847813021
RPL30	0.848291903
RRP15	0.849508617
GAMT	0.849913041
FAM102A	0.850233437
FOXO1	0.851058512
RPL35	0.85144897
RDH14	0.853158074
LAGE3	0.853222594
RIOK1	0.853342189
TRMT5	0.853531194
MPHOSPH9	0.854812959
UBXN1	0.858571394
GORASP2	0.861499232
CAPN2	0.86158577
SERTAD2	0.863588544
CDK14	0.865137442
AKIRIN2	0.866515558
RPL22	0.866705639
RPUSD4	0.868899973
LYPD2	0.870536849
RAB31	0.877627074
GPX1	0.877998597
ZNF428	0.879223976
TBCB	0.879763883
METTL1	0.88071271
TRA2B	0.880820103
GNB2L1	0.880835785
FBLN2	0.881144332
SERPINB8	0.882443362
PDE7A	0.883662645
EIF2A	0.883807875
LGALS3BP	0.88480162
LTV1	0.885113262
ACTA2	0.885879493
SEH1L	0.886343706

TCERG1	0.887064904
ZNHIT6	0.887213559
NKRF	0.887286538
SMARCAD1	0.887841823
SLITRK4	0.889128328
DDX18	0.889232065
DPH5	0.89006797
FBXO15	0.890316536
SCML1	0.891686225
TRMT112	0.891828722
GBA	0.89217241
RPL13	0.893093136
MMP28	0.894595268
HSP90B1	0.894955105
RBM26	0.895367045
CSNK2A2	0.895622069
NIN	0.896197476
SH3BP2	0.897535762
SH3BGRL3	0.898385209
TOMM20	0.89896126
RIOK2	0.899845338
RPL36	0.901836572
TIPARP	0.90232881
TNFSF13B	0.902628646
CDC42EP4	0.903480779
STARD3NL	0.90458391
EBPL	0.905651079
PNN	0.906423079
ACOT9	0.907267153
CLEC4E	0.907608161
ZNF234	0.911712544
TRIM21	0.914089939
NAP1L1	0.914624465
PDGFRB	0.916335336
CBLL1	0.916902474
CRIP1	0.91745293
SERPINB1	0.91798126
EFHD1	0.918087442
TNIP3	0.919294101
NOL6	0.92054641
DDX1	0.92067858
BIN1	0.922617326
TADA3	0.923143575
BCS1L	0.92737565

ARHGEF40	0.928440676
ADAM17	0.928520211
NMT2	0.928723423
HDAC1	0.929393882
EIF3G	0.929673542
EIF4B	0.929978567
ZMYND19	0.930114694
SEPHS1	0.930391893
WDR89	0.932592668
ILK	0.932638116
PTP4A2	0.933437954
UTP14A	0.935394177
EWSR1	0.936871242
CDCA7L	0.938529531
ATG7	0.938784157
SLC26A6	0.940679905
CIRH1A	0.940725375
APOBEC3C	0.94076532
NFKB1	0.942370164
DNAJA3	0.943688779
SURF6	0.944183013
RNF144A	0.945106644
DDX55	0.945747924
ANXA4	0.948599808
DOLPP1	0.948855542
DNMT1	0.949946352
GTF3A	0.950304818
PPRC1	0.95130054
BNC2	0.952467667
CMSS1	0.952655278
TLN1	0.952894188
TRAF3IP2	0.954597667
VNN3	0.95469514
IL10RB	0.955080099
FAM214B	0.955283835
HIVEP2	0.955706417
AARS	0.957575283
ETS1	0.957693746
ATAD1	0.958042255
DIMT1	0.958576559
SUSD1	0.958675105
DNMT3A	0.959646325
SH3BP5L	0.960381895
TFB2M	0.96430821

TRIB2	0.964476696
NXT1	0.964773863
AGPAT3	0.965295304
OCIAD1	0.965706573
CRISPLD2	0.968126438
ADSL	0.968180979
TIMM21	0.96900108
TIMD4	0.970046143
SRPRB	0.970805251
TSPAN17	0.9708444
NOL8	0.972390339
VIM	0.972433186
DEDD	0.973149497
SUMF2	0.974300614
TYSND1	0.974325911
DLGAP4	0.974452596
THNSL1	0.975578458
PFAS	0.975670688
DGKA	0.976490062
NSMCE1	0.976556126
TMTC1	0.976666879
PADI4	0.977762968
RCN2	0.977889898
CDK4	0.978048771
TUT1	0.978146224
C12orf75	0.980123926
MAPK1	0.981667844
GPR56	0.982102309
EHD4	0.982822982
CXXC5	0.984064434
MAK16	0.984473753
GNL3	0.988697142
PTPRK	0.989812507
TMEM97	0.990079653
ABCC3	0.992832902
AFG3L2	0.993874273
DHX15	0.996171272
TMBIM1	0.997057379
POLRMT	0.998303741
PCED1B	0.999311704
GLMN	0.999545544
ICAM4	NA

Table S5 The identified 21 aging-related genes and their regression coefficients in the TCGA LUAD cohort

Gene symbol	Regression coefficient
ZNF101	-0.085659113
PLEKHB1	-0.081330886
P2RX1	-0.047928796
EIF2AK3	-0.035468225
LPAR6	-0.032761645
ATF7IP2	-0.031678475
MS4A1	-0.0288228
CCR2	-0.027473396
ZNF10	-0.025462253
AKTIP	-0.011730398
GNG7	-0.007552353
DAAM2	-0.005509787
PTTG1	0.004459918
IL1R2	0.011251534
KYNU	0.012512481
TCN1	0.014731912
ITGA6	0.036256529
AHSA1	0.038877084
DSC1	0.04688018
LINGO2	0.063459528
C1QTNF6	0.118851587

Table S6 Distribution of extracted three mutational signatures across LUAD patients in the TCGA cohort

Sample ID	Signature 1	Signature 2	Signature 4
TCGA-05-4244-01	0.35673218	0.057225228	0.586042591
TCGA-05-4249-01	0.269369975	0.164087792	0.566542233
TCGA-05-4250-01	0.275225944	0.249338962	0.475435094
TCGA-05-4382-01	0.088317102	0.183834992	0.727847906
TCGA-05-4384-01	0.398217733	0.121765467	0.480016801
TCGA-05-4389-01	0.357738085	0.461844476	0.180417439
TCGA-05-4390-01	0.219213224	0.013454307	0.767332469
TCGA-05-4395-01	0.20118924	0.498044161	0.300766599
TCGA-05-4396-01	0.315942358	0.100148932	0.583908709
TCGA-05-4397-01	0.231926827	0.298518904	0.469554269
TCGA-05-4398-01	0.263304385	0.201106683	0.535588932
TCGA-05-4402-01	0.140849324	0.824251354	0.034899322
TCGA-05-4403-01	0.593788908	0.076173738	0.330037354
TCGA-05-4405-01	0.364065189	0.097781503	0.538153308
TCGA-05-4410-01	0.142479689	0.227112182	0.63040813

TCGA-05-4415-01	0.215320624	0.035022239	0.749657137
TCGA-05-4417-01	0.254954878	0.025268091	0.719777032
TCGA-05-4418-01	0.379648389	0.09868771	0.521663901
TCGA-05-4420-01	0.310195528	0.080119494	0.609684979
TCGA-05-4422-01	0.217482086	0.63453363	0.147984284
TCGA-05-4424-01	0.164171656	0.265359636	0.570468708
TCGA-05-4425-01	0.880640936	0.08928065	0.030078414
TCGA-05-4426-01	0.777152391	0.12905912	0.093788489
TCGA-05-4427-01	0.260225485	0.105859108	0.633915406
TCGA-05-4430-01	0.201027407	0.100305503	0.69866709
TCGA-05-4432-01	0.30343283	0.073863194	0.622703976
TCGA-05-4433-01	0.924491084	0.075508916	3.03E-14
TCGA-05-4434-01	0.720188232	0.279811768	2.18E-14
TCGA-05-5420-01	0.558207531	0.075279186	0.366513283
TCGA-05-5423-01	0.383921394	0.151278888	0.464799718
TCGA-05-5425-01	0.250046494	0.103747917	0.64620559
TCGA-05-5428-01	0.093099029	0.503962789	0.402938181
TCGA-05-5429-01	0.854145614	0.145854386	2.75E-14
TCGA-05-5715-01	0.167837262	0.787504837	0.0446579
TCGA-35-3615-01	0.193840089	0.550091316	0.256068596
TCGA-35-4122-01	0.478093395	0.19305879	0.328847815
TCGA-35-4123-01	0.253151319	0.063756623	0.683092058
TCGA-35-5375-01	0.398066591	0.148855222	0.453078187
TCGA-38-4625-01	0.083414978	0.324375492	0.592209531
TCGA-38-4626-01	0.109743669	0.090352083	0.799904248
TCGA-38-4627-01	0.726575089	0.130156499	0.143268412
TCGA-38-4628-01	0.564808756	0.204100624	0.23109062
TCGA-38-4629-01	0.355381383	0.225814506	0.418804111
TCGA-38-4630-01	0.340288973	0.574841504	0.084869524
TCGA-38-4631-01	0.151766907	0.02819983	0.820033262
TCGA-38-4632-01	0.283473658	0.105688454	0.610837888
TCGA-38-6178-01	0.504525223	0.265243672	0.230231105
TCGA-38-7271-01	0.055622417	0.590426351	0.353951232
TCGA-38-A44F-01	0.892898465	0.065910882	0.041190653
TCGA-44-2655-01	0.16753499	0.076925163	0.755539846
TCGA-44-2656-01	0.202317599	0.019869752	0.777812648
TCGA-44-2657-01	0.217656068	0.176660476	0.605683456
TCGA-44-2659-01	0.20285282	0.044959234	0.752187946
TCGA-44-2661-01	0.727783442	0.200092928	0.072123631
TCGA-44-2662-01	0.082200128	0.810419419	0.107380454
TCGA-44-2665-01	0.66938546	0.313474897	0.017139644
TCGA-44-2666-01	0.804810362	0.195189638	5.16E-14
TCGA-44-2668-01	0.079130318	0.299283035	0.621586648
TCGA-44-3396-01	0.256460132	0.565614	0.177925868

TCGA-44-3398-01	0.254537469	0.415431303	0.330031228
TCGA-44-3917-01	0.218709988	0.204820129	0.576469883
TCGA-44-3918-01	0.103451311	0.145809986	0.750738703
TCGA-44-3919-01	0.39152819	0.532767193	0.075704618
TCGA-44-4112-01	0.141475035	0.329785434	0.528739531
TCGA-44-5643-01	0.427831743	0.326981173	0.245187084
TCGA-44-5644-01	0.207277617	0.087838609	0.704883773
TCGA-44-5645-01	0.984094362	2.85E-14	0.015905638
TCGA-44-6144-01	0.339539096	0.130709866	0.529751038
TCGA-44-6145-01	0.158995682	0.035582064	0.805422254
TCGA-44-6146-01	0.891317574	0.037125268	0.071557158
TCGA-44-6147-01	0.299081087	0.091966878	0.608952035
TCGA-44-6148-01	0.764432062	1.85E-13	0.235567938
TCGA-44-6774-01	0.158556744	5.47E-12	0.841443256
TCGA-44-6775-01	0.576965414	0.215826399	0.207208187
TCGA-44-6776-01	0.296455368	0.068051653	0.635492979
TCGA-44-6777-01	0.202423923	0.386916045	0.410660031
TCGA-44-6778-01	0.278301966	0.043993835	0.677704199
TCGA-44-6779-01	0.540755255	0.133069246	0.326175499
TCGA-44-7659-01	0.347881686	0.118673631	0.533444683
TCGA-44-7660-01	0.455383769	0.1430991	0.401517131
TCGA-44-7661-01	0.12909303	0.38175509	0.489151879
TCGA-44-7662-01	0.200292319	0.217282174	0.582425508
TCGA-44-7667-01	0.334305284	0.046550601	0.619144115
TCGA-44-7669-01	0.331543019	0.029746455	0.638710526
TCGA-44-7670-01	0.149432611	0.256294357	0.594273031
TCGA-44-7671-01	0.314535124	0.110009545	0.575455331
TCGA-44-7672-01	0.219609149	0.131904573	0.648486278
TCGA-44-8117-01	0.204037729	0.062416959	0.733545312
TCGA-44-8119-01	0.350149511	0.032781115	0.617069374
TCGA-44-8120-01	0.162890599	0.064415447	0.772693954
TCGA-44-A479-01	0.190949635	0.091644781	0.717405584
TCGA-44-A47A-01	0.228848012	0.576920516	0.194231473
TCGA-44-A47B-01	0.76058823	0.06514332	0.17426845
TCGA-44-A47F-01	0.544852726	0.3040799	0.151067374
TCGA-44-A47G-01	0.479744413	0.339278413	0.180977174
TCGA-44-A4SS-01	0.264050054	0.219990286	0.515959661
TCGA-44-A4SU-01	0.500943888	0.062076234	0.436979878
TCGA-49-4486-01	0.126024674	0.787290622	0.086684703
TCGA-49-4487-01	0.193707824	0.275607564	0.530684613
TCGA-49-4488-01	0.21945883	0.145296428	0.635244742
TCGA-49-4490-01	0.640051898	0.359948102	1.72E-14
TCGA-49-4494-01	0.296125202	0.101946717	0.601928081
TCGA-49-4501-01	0.738078923	0.236888397	0.02503268

TCGA-49-4505-01	0.380114965	0.118940164	0.500944871
TCGA-49-4506-01	0.492532268	0.035698713	0.471769019
TCGA-49-4507-01	0.330961237	0.341061933	0.32797683
TCGA-49-4510-01	0.605183537	0.123186539	0.271629924
TCGA-49-4512-01	0.703703198	0.156018957	0.140277845
TCGA-49-4514-01	0.125353852	0.530013481	0.344632667
TCGA-49-6742-01	0.256176397	0.669170893	0.074652709
TCGA-49-6743-01	0.214395167	0.411555146	0.374049687
TCGA-49-6744-01	0.176821663	0.054378001	0.768800337
TCGA-49-6745-01	0.281212341	0.714168465	0.004619194
TCGA-49-6761-01	0.266686784	0.513563234	0.219749983
TCGA-49-6767-01	0.218945124	0.118596002	0.662458875
TCGA-49-AAQV-01	0.310524248	0.630327991	0.059147761
TCGA-49-AAR0-01	0.391284693	0.203634057	0.40508125
TCGA-49-AAR2-01	0.174519904	0.033054969	0.792425126
TCGA-49-AAR3-01	0.456426158	0.132671668	0.410902174
TCGA-49-AAR4-01	0.056043766	0.347288653	0.596667582
TCGA-49-AAR9-01	0.186126352	0.028562244	0.785311404
TCGA-49-AARE-01	0.155477579	0.116095798	0.728426623
TCGA-49-AARN-01	0.574146888	0.193202821	0.232650291
TCGA-49-AARO-01	0.033826627	0.078527725	0.887645648
TCGA-49-AARQ-01	0.110490494	0.225351255	0.664158252
TCGA-49-AARR-01	0.788525657	4.85E-13	0.211474343
TCGA-4B-A93V-01	0.342262423	0.101076652	0.556660925
TCGA-50-5044-01	0.088847356	0.890374629	0.020778015
TCGA-50-5045-01	0.037430786	0.093030512	0.869538702
TCGA-50-5049-01	0.106939158	0.056099262	0.83696158
TCGA-50-5051-01	0.419573504	0.091288186	0.489138309
TCGA-50-5055-01	0.741234043	0.258765957	5.4E-14
TCGA-50-5066-01	0.246814197	0.142483566	0.610702237
TCGA-50-5068-01	0.59872189	0.094476655	0.306801456
TCGA-50-5072-01	0.310059696	0.199738322	0.490201982
TCGA-50-5930-01	0.124750817	0.0000133	0.875235866
TCGA-50-5931-01	0.296395327	0.109125311	0.594479362
TCGA-50-5932-01	0.143415078	0.027010878	0.829574044
TCGA-50-5933-01	0.282583811	0.143966218	0.573449971
TCGA-50-5935-01	0.387700358	0.612299642	9.78E-15
TCGA-50-5936-01	0.238824827	0.581332773	0.1798424
TCGA-50-5939-01	0.55185563	0.34367464	0.10446973
TCGA-50-5941-01	0.260326889	0.147701469	0.591971642
TCGA-50-5942-01	0.632496462	0.024539873	0.342963666
TCGA-50-5944-01	0.6730909	0.187522619	0.139386481
TCGA-50-5946-01	0.211935561	0.330312398	0.45775204
TCGA-50-6590-01	0.098252286	0.363177032	0.538570682

TCGA-50-6591-01	0.772696209	0.167609777	0.059694014
TCGA-50-6592-01	0.307514677	0.342398305	0.350087017
TCGA-50-6593-01	0.335890935	0.068011015	0.59609805
TCGA-50-6594-01	0.138789433	0.1655923	0.695618267
TCGA-50-6595-01	0.358129734	0.46116809	0.180702176
TCGA-50-6597-01	0.53191991	0.45133016	0.01674993
TCGA-50-6673-01	0.823178681	0.153287468	0.023533851
TCGA-50-7109-01	0.36292667	0.05053994	0.58653339
TCGA-50-8457-01	0.504937516	0.174811167	0.320251318
TCGA-50-8459-01	0.418980312	0.054144005	0.526875683
TCGA-50-8460-01	0.674488124	0.257908861	0.067603015
TCGA-53-7624-01	0.151406823	0.318972645	0.529620532
TCGA-53-7626-01	0.129842616	0.181875339	0.688282045
TCGA-53-7813-01	0.359176726	1.02E-14	0.640823274
TCGA-53-A4EZ-01	0.200966731	0.084528243	0.714505025
TCGA-55-1592-01	0.414445376	0.186821172	0.398733452
TCGA-55-1594-01	0.305204689	0.509878511	0.1849168
TCGA-55-1595-01	0.26064519	0.059236183	0.680118627
TCGA-55-1596-01	0.51638478	0.064534554	0.419080667
TCGA-55-5899-01	0.140261018	0.381291524	0.478447458
TCGA-55-6543-01	0.843662111	0.156337889	4.83E-14
TCGA-55-6642-01	0.2955079	0.072844815	0.631647285
TCGA-55-6712-01	0.19427866	0.712215645	0.093505695
TCGA-55-6968-01	1.84E-15	0.872781329	0.127218671
TCGA-55-6969-01	0.282580227	0.06809484	0.649324933
TCGA-55-6970-01	0.27043897	0.094676574	0.634884456
TCGA-55-6971-01	0.345094753	0.116318473	0.538586774
TCGA-55-6972-01	0.115849591	0.652572485	0.231577924
TCGA-55-6975-01	0.518531747	0.188953329	0.292514925
TCGA-55-6978-01	1	3.53E-14	3.53E-14
TCGA-55-6979-01	0.063342018	0.56984371	0.366814272
TCGA-55-6980-01	1	7.73E-14	7.73E-14
TCGA-55-6981-01	0.760360994	0.174946701	0.064692306
TCGA-55-6982-01	0.057798645	0.90778301	0.034418345
TCGA-55-6983-01	0.48340757	0.068166418	0.448426012
TCGA-55-6984-01	0.730526445	0.031880776	0.237592779
TCGA-55-6985-01	0.232338664	0.013611612	0.754049724
TCGA-55-6986-01	0.919976367	0.070793645	0.009229988
TCGA-55-6987-01	0.160396414	0.546795949	0.292807636
TCGA-55-7227-01	0.399213631	0.091862607	0.508923763
TCGA-55-7281-01	0.207048983	0.16046392	0.632487097
TCGA-55-7283-01	0.409573371	0.350418921	0.240007708
TCGA-55-7284-01	0.960134889	0.039865111	2.16E-14
TCGA-55-7570-01	0.212246893	0.373101879	0.414651228

TCGA-55-7573-01	0.423599715	0.250148795	0.32625149
TCGA-55-7574-01	0.069418542	0.717125185	0.213456274
TCGA-55-7576-01	0.393438223	0.090280877	0.516280901
TCGA-55-7724-01	0.533214462	0.242031302	0.224754235
TCGA-55-7725-01	0.33268842	0.017858309	0.649453271
TCGA-55-7726-01	0.250002931	0.703402363	0.046594705
TCGA-55-7727-01	0.17447211	0.559531983	0.265995907
TCGA-55-7728-01	0.392362778	0.03370624	0.573930982
TCGA-55-7815-01	0.378518708	0.082012527	0.539468765
TCGA-55-7816-01	1	6.18E-13	6.18E-13
TCGA-55-7903-01	0.474631139	0.230407608	0.294961252
TCGA-55-7907-01	0.083535546	0.296737956	0.619726498
TCGA-55-7910-01	0.263958382	0.039634	0.696407618
TCGA-55-7911-01	0.299646976	0.143097128	0.557255896
TCGA-55-7913-01	0.270010595	0.188018013	0.541971391
TCGA-55-7914-01	0.426869942	0.191047603	0.382082455
TCGA-55-7994-01	0.182627729	0.083977085	0.733395186
TCGA-55-7995-01	0.203783236	0.259944973	0.536271791
TCGA-55-8085-01	0.196214039	0.549437956	0.254348005
TCGA-55-8087-01	0.681430392	0.282815611	0.035753996
TCGA-55-8089-01	0.069248069	0.490622568	0.440129363
TCGA-55-8090-01	0.488069238	0.054177357	0.457753406
TCGA-55-8091-01	0.984935548	3.58E-14	0.015064452
TCGA-55-8092-01	0.253449043	0.372600836	0.37395012
TCGA-55-8094-01	0.288378599	0.056223242	0.655398159
TCGA-55-8096-01	0.353162713	0.140762053	0.506075234
TCGA-55-8097-01	0.570666853	0.141005622	0.288327526
TCGA-55-8203-01	0.286283542	3.73E-15	0.713716458
TCGA-55-8204-01	0.237760119	0.520795083	0.241444798
TCGA-55-8205-01	0.124536095	0.515179595	0.36028431
TCGA-55-8206-01	0.667740729	0.224947582	0.10731169
TCGA-55-8207-01	0.324718254	0.070324434	0.604957311
TCGA-55-8208-01	0.168045292	0.672233986	0.159720722
TCGA-55-8299-01	0.22829643	0.101229677	0.670473893
TCGA-55-8301-01	0.334088983	0.146301735	0.519609282
TCGA-55-8302-01	0.173930726	0.047582078	0.778487196
TCGA-55-8505-01	0.540037006	0.403217351	0.056745643
TCGA-55-8506-01	0.585132091	7.9E-16	0.414867909
TCGA-55-8507-01	0.195390828	0.050711753	0.753897419
TCGA-55-8508-01	0.392005661	0.117104306	0.490890033
TCGA-55-8510-01	0.138671165	0.171346589	0.689982247
TCGA-55-8511-01	0.25343697	0.214395215	0.532167815
TCGA-55-8512-01	0.454267106	0.151203861	0.394529034
TCGA-55-8513-01	1	1.55E-13	1.55E-13

TCGA-55-8514-01	0.326327872	0.032713408	0.64095872
TCGA-55-8614-01	0.566088004	0.18788565	0.246026346
TCGA-55-8615-01	0.51032268	0.0548995	0.43477782
TCGA-55-8616-01	0.207279539	0.035543389	0.757177073
TCGA-55-8619-01	0.886249903	0.063340437	0.05040966
TCGA-55-8620-01	0.345609818	0.049660928	0.604729254
TCGA-55-8621-01	0.436606412	0.1816498	0.381743787
TCGA-55-A48X-01	0.108482718	0.142377328	0.749139954
TCGA-55-A48Y-01	0.026026195	0.956676335	0.01729747
TCGA-55-A48Z-01	0.69553369	0.112508869	0.191957442
TCGA-55-A490-01	0.111450966	0.13510923	0.753439804
TCGA-55-A491-01	0.274385122	0.139602706	0.586012172
TCGA-55-A492-01	0.377128069	0.078446157	0.544425774
TCGA-55-A493-01	0.195352414	0.41993998	0.384707606
TCGA-55-A494-01	0.42432879	0.093454473	0.482216737
TCGA-55-A4DF-01	0.054038823	0.85013579	0.095825387
TCGA-55-A4DG-01	0.174624979	0.050140902	0.775234118
TCGA-55-A57B-01	0.727470077	0.197596844	0.074933079
TCGA-62-8394-01	0.451730556	0.424399744	0.1238697
TCGA-62-8395-01	0.625610566	0.325585147	0.048804286
TCGA-62-8397-01	0.803764209	0.046638174	0.149597618
TCGA-62-8398-01	0.577248989	0.140611183	0.282139828
TCGA-62-8399-01	0.160342078	0.560927582	0.27873034
TCGA-62-8402-01	0.75132201	0.15623916	0.092438831
TCGA-62-A46O-01	0.178424217	0.272014156	0.549561627
TCGA-62-A46P-01	0.29705746	5.56E-15	0.70294254
TCGA-62-A46R-01	0.450063811	0.222958508	0.326977682
TCGA-62-A46S-01	0.508848863	0.137990007	0.35316113
TCGA-62-A46U-01	0.6237271	0.206690501	0.169582399
TCGA-62-A46V-01	0.84873014	0.078924961	0.072344899
TCGA-62-A46Y-01	0.94162817	0.001624765	0.056747065
TCGA-62-A470-01	0.611941227	0.097003476	0.291055297
TCGA-62-A471-01	0.236785013	0.727717076	0.035497912
TCGA-62-A472-01	0.714013984	0.044683536	0.24130248
TCGA-64-1676-01	0.182228999	0.026716116	0.791054885
TCGA-64-1679-01	0.110817277	0.158990885	0.730191838
TCGA-64-1680-01	0.42091812	0.536495285	0.042586594
TCGA-64-1681-01	0.547788979	0.404171255	0.048039766
TCGA-64-5774-01	0.31899162	0.066906072	0.614102308
TCGA-64-5775-01	0.217118467	0.05817202	0.724709513
TCGA-64-5778-01	0.173412532	0.118212709	0.708374758
TCGA-64-5779-01	0.29137695	0.041393905	0.667229145
TCGA-64-5781-01	0.110713852	0.222438234	0.666847913
TCGA-64-5815-01	0.327483067	0.024906412	0.647610521

TCGA-67-3770-01	0.352362827	0.025228166	0.622409007
TCGA-67-3771-01	0.172383764	0.476355366	0.35126087
TCGA-67-3773-01	0.524079209	0.004231604	0.471689187
TCGA-67-3774-01	0.328003545	0.114842023	0.557154432
TCGA-67-4679-01	0.225686381	0.061457081	0.712856538
TCGA-67-6215-01	0.968936727	0.031063273	8.98E-15
TCGA-67-6216-01	0.451390064	0.505906209	0.042703727
TCGA-67-6217-01	0.445158271	0.09444405	0.460397679
TCGA-69-7760-01	0.694334877	0.15753254	0.148132583
TCGA-69-7761-01	0.709910448	0.018643638	0.271445914
TCGA-69-7763-01	0.728344768	0.022776823	0.248878409
TCGA-69-7764-01	0.606693224	0.095646914	0.297659862
TCGA-69-7765-01	0.089592261	0.201411815	0.708995924
TCGA-69-7973-01	0.232379257	0.066089677	0.701531066
TCGA-69-7974-01	0.243359364	0.103343834	0.653296802
TCGA-69-7978-01	0.114170683	0.46725768	0.418571637
TCGA-69-7979-01	0.106931876	0.098327701	0.794740422
TCGA-69-7980-01	0.142299351	0.367107189	0.49059346
TCGA-69-8253-01	0.227506034	0.279515304	0.492978662
TCGA-69-8254-01	0.745023371	0.009843659	0.24513297
TCGA-69-8255-01	0.423463439	0.212577404	0.363959157
TCGA-69-A59K-01	0.219974505	0.130991774	0.649033721
TCGA-71-6725-01	0.82284323	0.142637824	0.034518946
TCGA-71-8520-01	0.621602201	0.274512745	0.103885054
TCGA-73-4658-01	0.144577106	0.57127443	0.284148464
TCGA-73-4659-01	0.267962473	0.083230058	0.648807469
TCGA-73-4662-01	0.34208075	0.11334882	0.54457043
TCGA-73-4666-01	0.300991071	0.089238269	0.60977066
TCGA-73-4668-01	0.207070384	0.025522345	0.767407272
TCGA-73-4670-01	0.38499135	0.114580212	0.500428438
TCGA-73-4675-01	0.69870276	0.102863667	0.198433573
TCGA-73-4676-01	0.718266911	0.043836155	0.237896934
TCGA-73-4677-01	0.340891009	0.091809543	0.567299448
TCGA-73-7498-01	0.481627844	0.022618354	0.495753801
TCGA-73-7499-01	0.547498243	0.385705599	0.066796158
TCGA-73-A9RS-01	0.094416054	0.119162673	0.786421273
TCGA-75-5122-01	0.436182274	0.315598104	0.248219622
TCGA-75-5125-01	0.321950921	0.408262807	0.269786272
TCGA-75-5126-01	0.106966987	0.452477868	0.440555145
TCGA-75-5146-01	0.131278037	0.08615004	0.782571922
TCGA-75-5147-01	0.640347272	0.31658191	0.043070818
TCGA-75-6203-01	0.948768079	6.79E-14	0.051231921
TCGA-75-6205-01	0.69677552	0.20930688	0.0939176
TCGA-75-6206-01	0.273677093	0.310957012	0.415365894

TCGA-75-6207-01	0.598385488	0.295464349	0.106150164
TCGA-75-6211-01	0.260167398	0.079235782	0.66059682
TCGA-75-6212-01	0.877724822	0.117158009	0.005117169
TCGA-75-6214-01	0.130077794	0.416052719	0.453869487
TCGA-75-7025-01	0.794107122	0.205892878	3.15E-14
TCGA-75-7027-01	0.264640498	0.040063641	0.695295862
TCGA-75-7030-01	0.908399279	7.4E-14	0.091600721
TCGA-75-7031-01	0.453122464	0.181900546	0.36497699
TCGA-78-7145-01	0.26481999	0.161235302	0.573944708
TCGA-78-7146-01	0.193218055	0.450886022	0.355895923
TCGA-78-7147-01	0.361669331	0.229892756	0.408437914
TCGA-78-7148-01	0.434160119	0.060538103	0.505301778
TCGA-78-7149-01	0.189478169	0.682012881	0.12850895
TCGA-78-7150-01	0.244309009	0.515187078	0.240503913
TCGA-78-7152-01	0.1322136	0.643265559	0.224520841
TCGA-78-7153-01	0.564507578	0.295159436	0.140332987
TCGA-78-7154-01	0.366293765	0.523736422	0.109969813
TCGA-78-7155-01	0.145197765	0.135436912	0.719365322
TCGA-78-7156-01	0.099448081	0.640005187	0.260546731
TCGA-78-7158-01	0.233797336	0.297643691	0.468558973
TCGA-78-7159-01	0.298431358	0.047083401	0.65448524
TCGA-78-7160-01	0.674461856	0.174541951	0.150996193
TCGA-78-7161-01	0.43110494	0.09717214	0.471722919
TCGA-78-7162-01	0.39444397	0.33342286	0.27213317
TCGA-78-7163-01	0.819603342	0.085335184	0.095061475
TCGA-78-7166-01	0.256036031	0.054358427	0.689605542
TCGA-78-7167-01	0.34401911	0.415808257	0.240172633
TCGA-78-7220-01	0.162674857	0.247081157	0.590243986
TCGA-78-7535-01	0.488770555	0.056420672	0.454808773
TCGA-78-7536-01	0.318090219	0.01882974	0.663080042
TCGA-78-7537-01	0.209231987	0.211441137	0.579326876
TCGA-78-7539-01	0.113974805	0.743759129	0.142266066
TCGA-78-7540-01	0.894842507	0.105157493	4.84E-12
TCGA-78-7542-01	0.234118527	0.167222518	0.598658955
TCGA-78-7633-01	0.330439902	0.121636201	0.547923897
TCGA-78-8640-01	0.275957709	0.270373934	0.453668357
TCGA-78-8648-01	0.541554914	1.07E-13	0.458445086
TCGA-78-8655-01	0.477420267	0.093948749	0.428630984
TCGA-78-8660-01	0.322294517	0.285530946	0.392174538
TCGA-78-8662-01	0.212488612	0.123201773	0.664309615
TCGA-80-5607-01	0.087139355	0.898632005	0.01422864
TCGA-80-5608-01	0.29324057	0.078781669	0.627977761
TCGA-80-5611-01	0.547116908	0.106581419	0.346301673
TCGA-83-5908-01	0.146279396	0.52000118	0.333719424

TCGA-86-6562-01	0.407774735	0.511493178	0.080732087
TCGA-86-6851-01	0.09812561	0.230098882	0.671775508
TCGA-86-7701-01	0.446078682	0.027038741	0.526882577
TCGA-86-7711-01	0.31321295	0.348384276	0.338402774
TCGA-86-7713-01	0.371402239	0.086916057	0.541681705
TCGA-86-7714-01	0.495110638	0.052889607	0.451999756
TCGA-86-7953-01	0.612508588	0.160431415	0.227059996
TCGA-86-7954-01	0.382272278	0.290293663	0.327434059
TCGA-86-7955-01	0.321067957	0.165219459	0.513712584
TCGA-86-8054-01	0.326159063	0.102778473	0.571062464
TCGA-86-8055-01	0.835725303	0.079128318	0.085146379
TCGA-86-8056-01	0.119119134	0.714144328	0.166736538
TCGA-86-8073-01	0.106082734	0.104740006	0.78917726
TCGA-86-8074-01	0.704668411	0.135087667	0.160243922
TCGA-86-8075-01	0.847521613	0.135986703	0.016491684
TCGA-86-8076-01	0.463492451	0.388467968	0.14803958
TCGA-86-8278-01	0.170548925	0.829451075	7.51E-15
TCGA-86-8279-01	0.249237216	0.0363021	0.714460684
TCGA-86-8280-01	0.760512209	0.116021143	0.123466649
TCGA-86-8281-01	0.309837596	0.210963576	0.479198827
TCGA-86-8358-01	0.241159808	0.040555615	0.718284577
TCGA-86-8359-01	0.311275972	0.111388324	0.577335704
TCGA-86-8585-01	0.151633393	0.33008538	0.518281227
TCGA-86-8668-01	0.875615501	0.100957269	0.02342723
TCGA-86-8669-01	0.553932128	0.099457568	0.346610304
TCGA-86-8671-01	0.62023003	0.37976997	2.48E-14
TCGA-86-8672-01	0.254183489	0.260306979	0.485509532
TCGA-86-8673-01	0.204255445	0.156048896	0.639695659
TCGA-86-8674-01	0.138266824	0.204181646	0.65755153
TCGA-86-A456-01	0.18097347	0.165471499	0.653555031
TCGA-86-A4JF-01	0.750453128	0.126407698	0.123139174
TCGA-86-A4P7-01	0.41497129	0.516947972	0.068080738
TCGA-86-A4P8-01	1.14E-12	1.14E-12	1
TCGA-91-6828-01	0.276238631	0.159303339	0.56445803
TCGA-91-6829-01	0.293350486	0.125604539	0.581044975
TCGA-91-6830-01	0.028019336	0.932137604	0.039843059
TCGA-91-6831-01	0.441570896	0.080081996	0.478347108
TCGA-91-6835-01	0.520377625	0.232539848	0.247082527
TCGA-91-6836-01	0.221511187	0.09033512	0.688153693
TCGA-91-6840-01	0.197585597	0.769481582	0.03293282
TCGA-91-6847-01	0.721674606	0.213791724	0.06453367
TCGA-91-6848-01	0.253009971	0.250407302	0.496582727
TCGA-91-6849-01	0.239307578	0.155380994	0.605311428
TCGA-91-7771-01	0.405414179	0.216593716	0.377992105

TCGA-91-8496-01	0.80349015	0.155568076	0.040941774
TCGA-91-8497-01	0.6984019	0.139699057	0.161899043
TCGA-91-8499-01	0.25907871	0.430374086	0.310547205
TCGA-91-A4BC-01	0.219616146	0.071714591	0.708669264
TCGA-91-A4BD-01	0.909360916	0.090639084	4.52E-14
TCGA-93-7347-01	0.297777825	0.148798535	0.55342364
TCGA-93-7348-01	0.499245375	0.204457838	0.296296787
TCGA-93-8067-01	6.26E-08	0.944493178	0.055506759
TCGA-93-A4JN-01	0.625551674	0.234828598	0.139619728
TCGA-93-A4JO-01	0.539438184	0.367525674	0.093036141
TCGA-93-A4JP-01	0.366809947	0.489474962	0.143715092
TCGA-93-A4JQ-01	0.442023293	0.526814993	0.031161714
TCGA-95-7039-01	0.20828551	0.089035502	0.702678988
TCGA-95-7043-01	0.143955512	0.089442128	0.76660236
TCGA-95-7562-01	0.180349381	4.87E-11	0.819650619
TCGA-95-7567-01	0.757216412	0.016195894	0.226587694
TCGA-95-7944-01	3.51E-15	0.976723622	0.023276378
TCGA-95-7947-01	0.160575366	0.583077766	0.256346867
TCGA-95-7948-01	0.027619032	0.972380968	5.76E-15
TCGA-95-8039-01	0.565006134	0.25956169	0.175432176
TCGA-95-8494-01	0.285304834	0.683166598	0.031528568
TCGA-95-A4VK-01	0.343751267	0.031036705	0.625212028
TCGA-95-A4VN-01	0.117320669	0.145438179	0.737241152
TCGA-95-A4VP-01	0.391303963	0.04120385	0.567492187
TCGA-97-7546-01	0.23586252	0.072161393	0.691976087
TCGA-97-7547-01	0.209534816	0.448440573	0.342024611
TCGA-97-7552-01	0.931213392	2.78E-14	0.068786608
TCGA-97-7553-01	0.685932851	0.070619769	0.24344738
TCGA-97-7554-01	0.278156055	0.063522207	0.658321738
TCGA-97-7937-01	0.260113626	0.094958838	0.644927536
TCGA-97-7938-01	0.193886872	0.197823453	0.608289675
TCGA-97-7941-01	0.330619387	0.26357291	0.405807702
TCGA-97-8171-01	0.845962166	0.037207924	0.11682991
TCGA-97-8172-01	0.450614279	5.45E-15	0.549385721
TCGA-97-8174-01	0.370763523	0.232284142	0.396952335
TCGA-97-8175-01	0.650240801	0.121974711	0.227784488
TCGA-97-8176-01	0.32563375	0.442109232	0.232257018
TCGA-97-8177-01	0.703325979	0.199518465	0.097155557
TCGA-97-8179-01	0.184557754	0.105918141	0.709524106
TCGA-97-8547-01	0.563259643	0.383668247	0.05307211
TCGA-97-8552-01	0.72126998	0.128260369	0.150469651
TCGA-97-A4LX-01	0.256791087	0.040583166	0.702625747
TCGA-97-A4M0-01	0.173041902	0.268139401	0.558818697
TCGA-97-A4M1-01	0.546507737	0.338637215	0.114855048

TCGA-97-A4M2-01	0.341845213	0.452915359	0.205239427
TCGA-97-A4M3-01	0.224476179	0.221768234	0.553755587
TCGA-97-A4M5-01	0.05374447	0.909882391	0.03637314
TCGA-97-A4M6-01	0.819121866	0.180878118	1.57E-08
TCGA-97-A4M7-01	0.225622943	0.051504835	0.722872223
TCGA-99-7458-01	0.233041276	0.052587414	0.71437131
TCGA-99-8025-01	0.238338979	0.429022916	0.332638105
TCGA-99-8028-01	0.148555953	8.29E-13	0.851444047
TCGA-99-8032-01	0.263622856	0.109744643	0.626632502
TCGA-99-8033-01	0.401261966	0.099500804	0.499237229
TCGA-99-AA5R-01	0.17064571	0.013978901	0.815375389
TCGA-J2-8192-01	0.740241287	0.189684029	0.070074685
TCGA-J2-8194-01	0.555399974	0.070265294	0.374334733
TCGA-J2-A4AD-01	0.241779963	0.572530732	0.185689305
TCGA-J2-A4AE-01	0.630195623	0.327963407	0.041840969
TCGA-J2-A4AG-01	0.501772492	0.094809185	0.403418322
TCGA-L4-A4E5-01	0.227393923	0.047192546	0.725413531
TCGA-L4-A4E6-01	0.061556653	0.570131784	0.368311563
TCGA-L9-A443-01	0.272995189	0.076525857	0.650478954
TCGA-L9-A444-01	0.15849694	0.045527133	0.795975927
TCGA-L9-A50W-01	0.596782925	0.276150647	0.127066429
TCGA-L9-A5IP-01	0.158013127	0.107824412	0.734162462
TCGA-L9-A743-01	0.152583785	0.552641574	0.294774642
TCGA-L9-A7SV-01	0.092712239	0.017194638	0.890093123
TCGA-L9-A8F4-01	0.188703317	0.134183411	0.677113272
TCGA-MN-A4N1-01	0.301414829	0.098123852	0.600461319
TCGA-MN-A4N4-01	0.071139608	0.402219509	0.526640884
TCGA-MN-A4N5-01	0.231136949	0.147082512	0.621780539
TCGA-MP-A4SV-01	0.201955726	0.499658677	0.298385597
TCGA-MP-A4SW-01	0.67421915	0.247866642	0.077914207
TCGA-MP-A4SY-01	0.427595773	0.249350091	0.323054136
TCGA-MP-A4T2-01	0.449980468	0.397750548	0.152268984
TCGA-MP-A4T4-01	0.187463787	0.135166403	0.67736981
TCGA-MP-A4T6-01	0.626257755	0.354695469	0.019046777
TCGA-MP-A4T7-01	0.316322333	0.040605242	0.643072425
TCGA-MP-A4T8-01	0.486265295	0.094659438	0.419075268
TCGA-MP-A4T9-01	0.275665326	0.416462768	0.307871906
TCGA-MP-A4TA-01	0.349034807	0.118388564	0.532576629
TCGA-MP-A4TC-01	0.173059223	0.153509262	0.673431515
TCGA-MP-A4TD-01	0.535242496	0.05875492	0.406002584
TCGA-MP-A4TE-01	0.649411668	9.24E-15	0.350588332
TCGA-MP-A4TF-01	0.25598275	0.078978161	0.665039089
TCGA-MP-A4TH-01	0.622273163	1.17E-14	0.377726837
TCGA-MP-A4TI-01	0.104400605	0.745503537	0.150095857

TCGA-MP-A4TJ-01	0.642685177	0.021294719	0.336020104
TCGA-MP-A4TK-01	0.126218978	0.28583048	0.587950542
TCGA-MP-A5C7-01	0.711255314	0.037903489	0.250841197
TCGA-NJ-A4YF-01	0.133485631	0.050438104	0.816076266
TCGA-NJ-A4YG-01	0.363929958	0.377457626	0.258612416
TCGA-NJ-A4YI-01	0.260309796	0.084642284	0.65504792
TCGA-NJ-A4YP-01	1.76E-15	0.861294378	0.138705622
TCGA-NJ-A4YQ-01	0.161645307	0.012629638	0.825725056
TCGA-NJ-A55A-01	0.287554526	0.084946393	0.627499081
TCGA-NJ-A55O-01	0.167327316	0.102205989	0.730466695
TCGA-NJ-A55R-01	0.262660283	0.080798659	0.656541059
TCGA-NJ-A7XG-01	0.775441804	0.035179402	0.189378794
TCGA-O1-A52J-01	0.336096993	0.086331795	0.577571212
TCGA-S2-AA1A-01	0.271801901	0.031491905	0.696706195