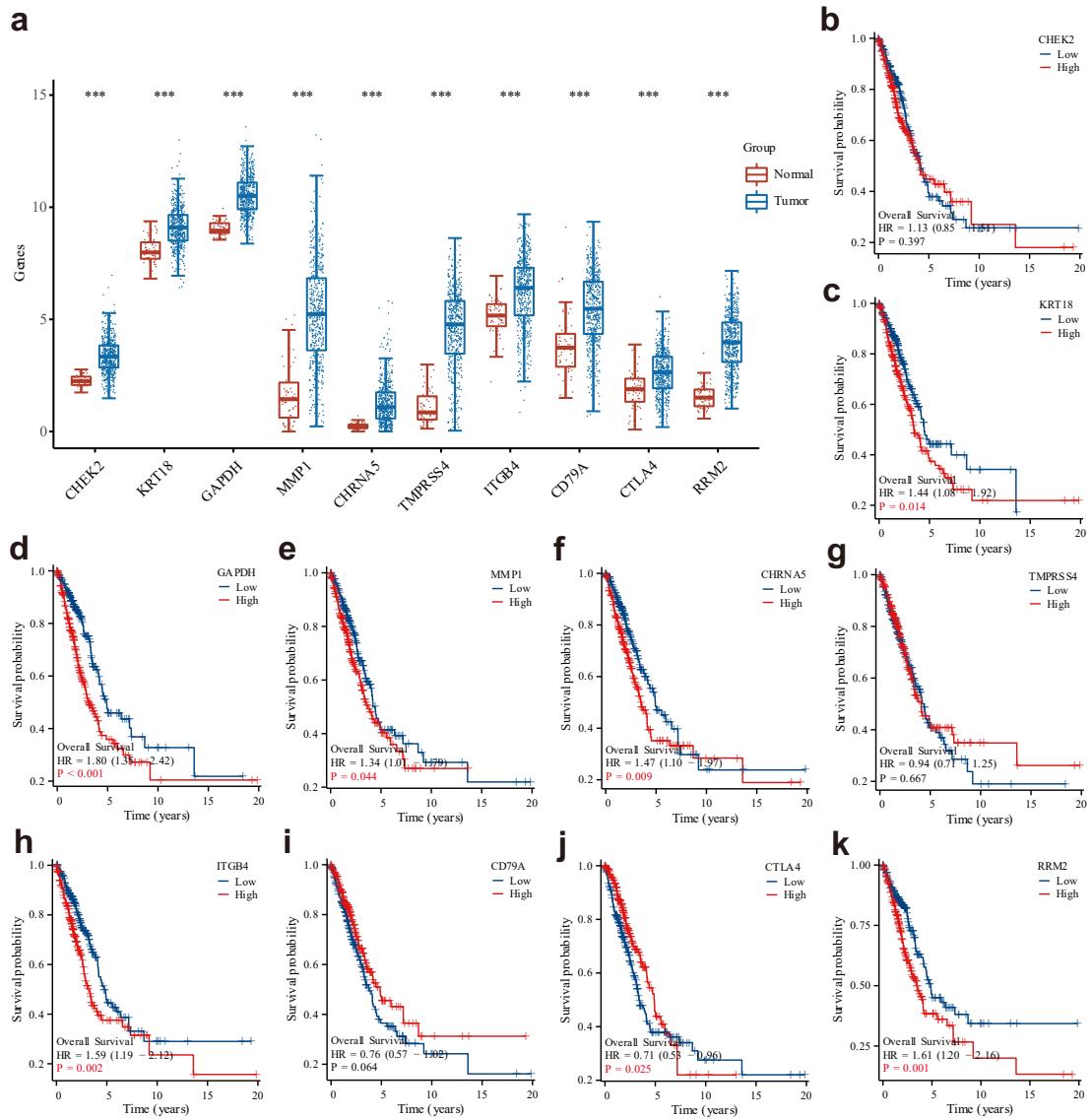
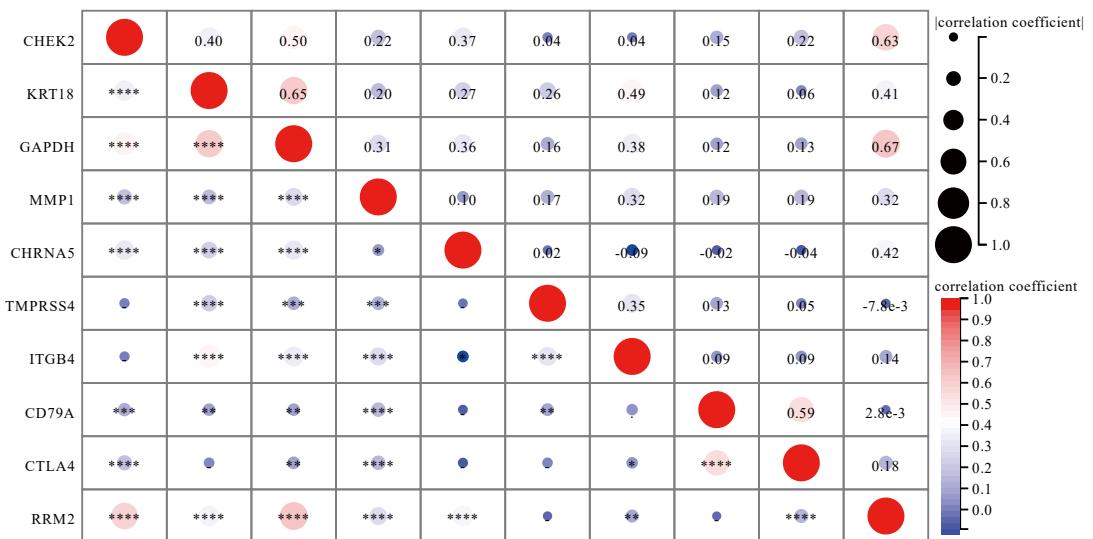


Supplementary Figures

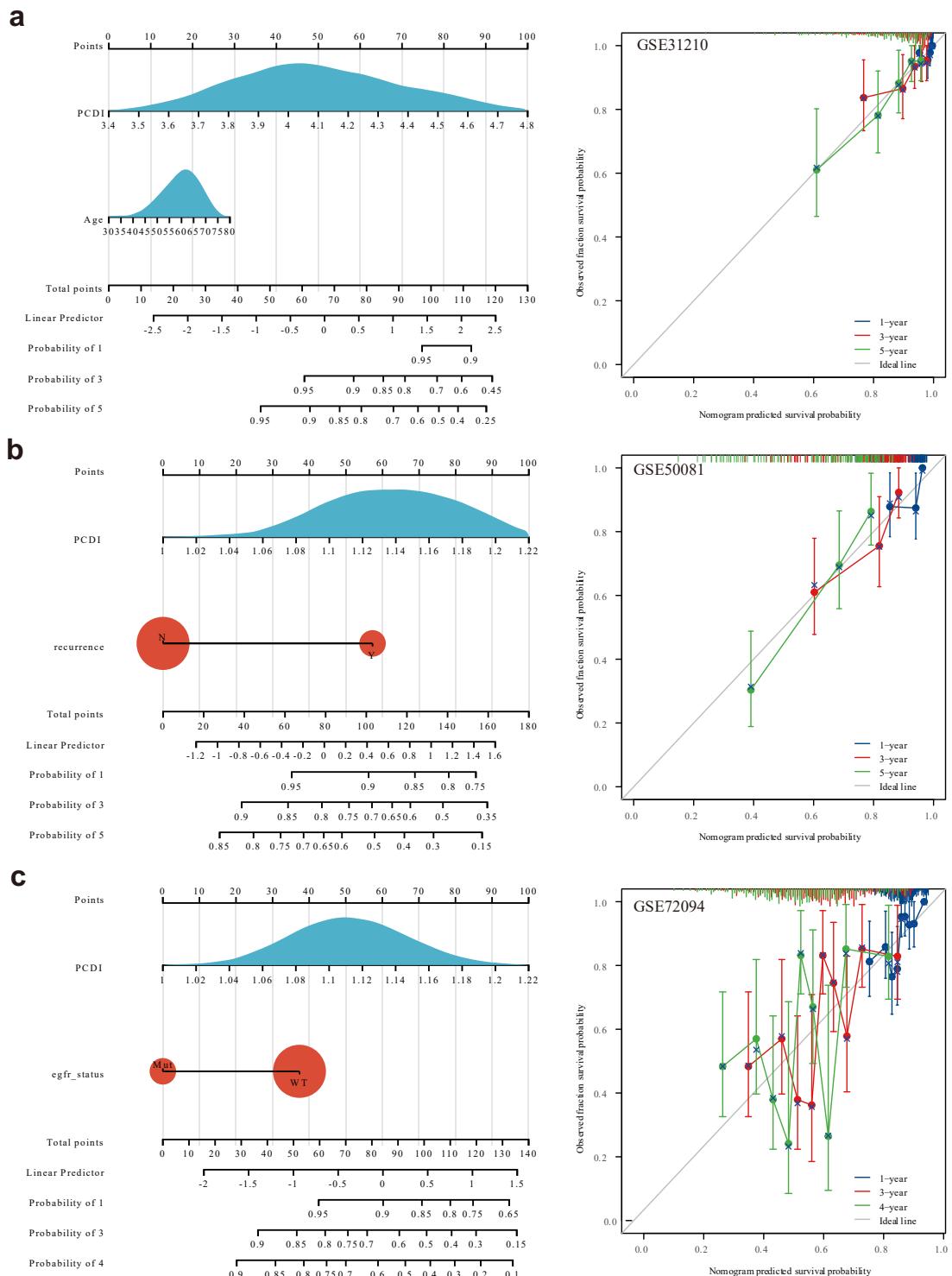


Supplementary Figure 1: Differential Expression and Survival Analysis of PCDS

in LUAD. (a) Wilcoxon test of PCDS expression between LUAD tissues (blue) and normal samples (red) in TCGA-LUAD cohort. *** $P < 0.001$. (b-k) Kaplan-Meier analysis of PCDS in TCGA-LUAD cohort (blue: low-expression group; red: high-expression group).



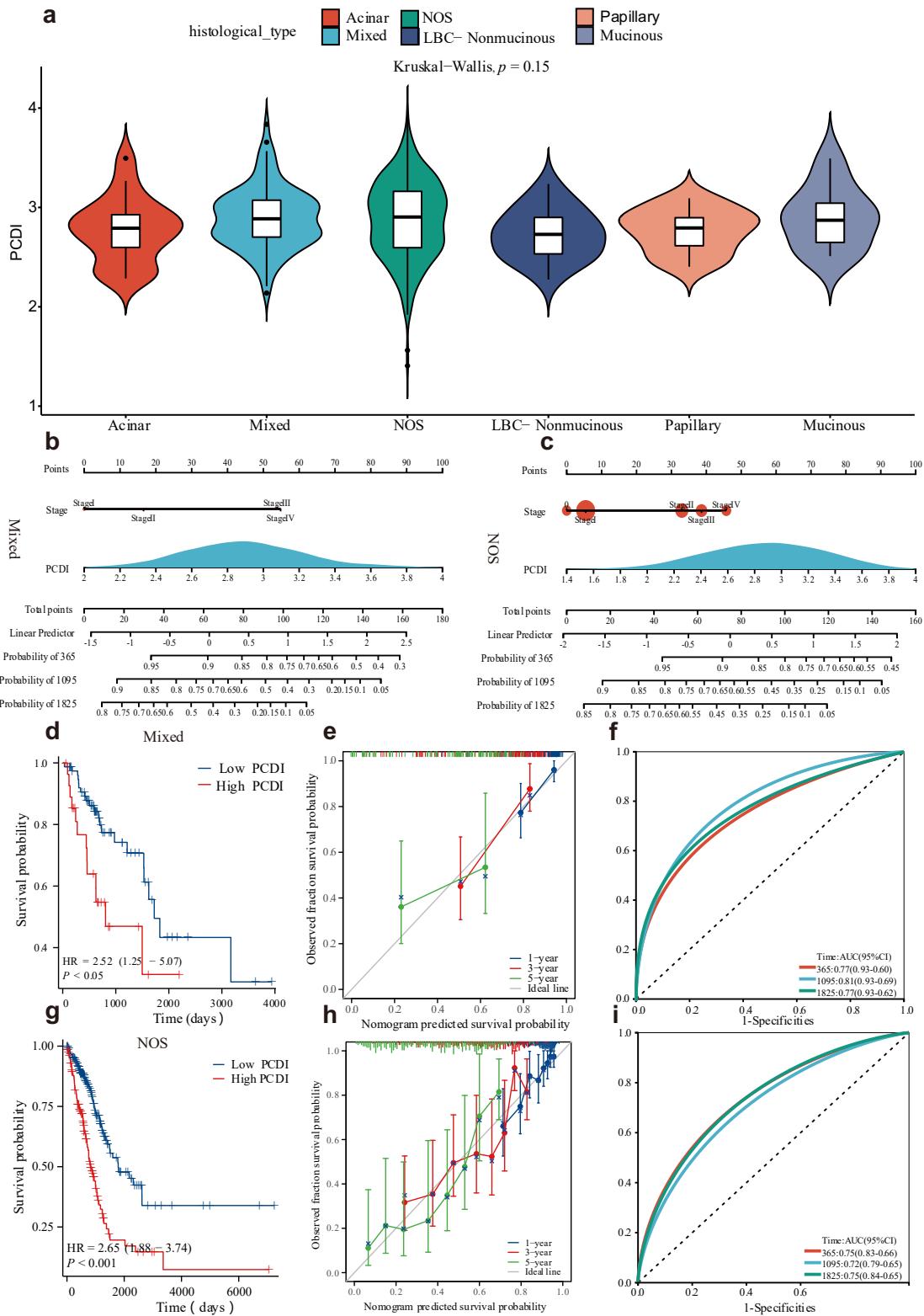
Supplementary Figure 2. The Correlation of Model Genes. Pearson's correlation coefficients (r) for all model genes are shown in the plot. * $P<0.05$, ** $P<0.01$, **** $P<0.0001$.



Supplementary Figure 3: Clinical Significance of the PCDI in the Validation

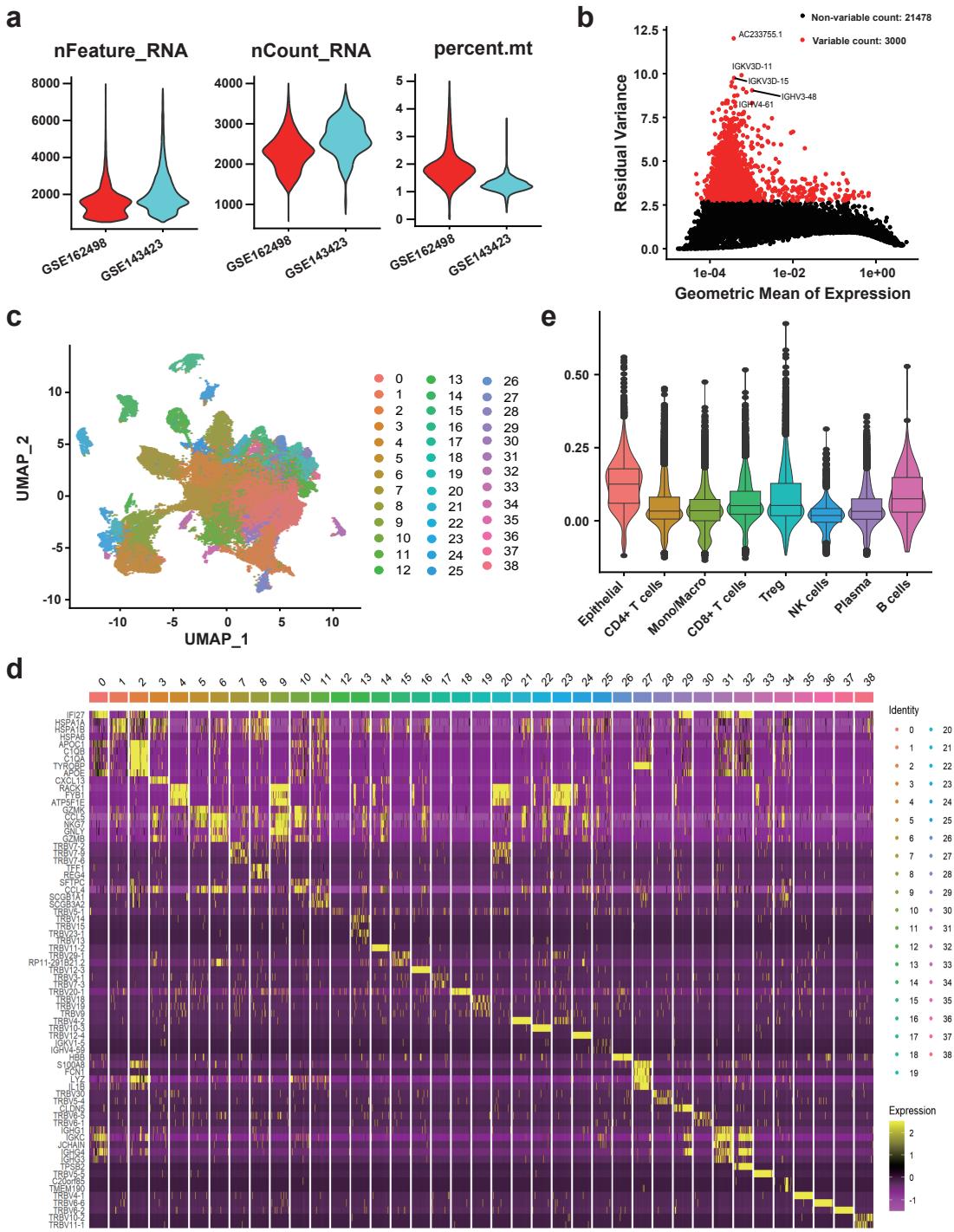
Cohort. Construction and validation of the prognostic nomogram model in (a)

GSE31210, (b) GSE50081, and (c) GSE72094 cohorts.



Supplementary Figure 4: Analysis of LUAD subtype. (a) violin plot of PCDI among 6 main LUAD subtypes. (b-c) Construction of nomogram model in Mixed and NOS subtype. (d) Kaplan–Meier analysis of the prognosis of LUAD Mixed patients. (e)

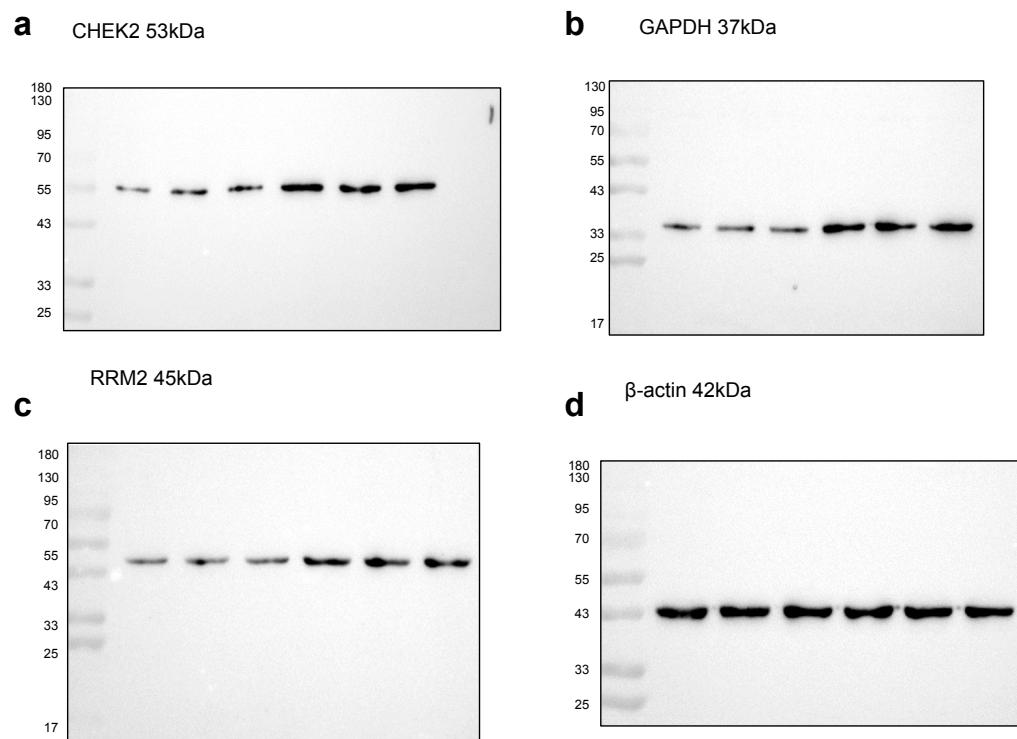
Calibration plots of the probability of 1-, 3-, and 5-year overall survival in the Mixed subtype. (f) Receiver operator characteristic (ROC) analysis of the nomogram in Mixed subtype. (g) Kaplan–Meier analysis of the prognosis of LUAD NOS patients. (h) Calibration plots of the probability of 1-, 3-, and 5-year overall survival in the NOS subtype. (i) Reciver operator characteristic (ROC) analysis of the nomogram in the NOS subtype.



Supplementary Figure 5: Quality control of single-cell RNA sequencing (scRNA)

data from two LUAD single-cell datasets. (a) The gene counts per cell (nFeature_RNA), number of unique molecular identifiers (UMIs) per cell (nCount_RNA), and percentage of mitochondrial genes per cell (percent. mt) of the scRNA-seq data. (b) The variance plot showed 21478 genes in all cells, red dots represent the top 3000 highly variable

genes. (c) UMAP plots for the 38 clusters' identification of single cells in LUAD datasets. (d) The Heatmap depicting expressions of the top 5 marker genes among 28 detected cell clusters. (e) Violin-box plot shows the level of CDIscore in eight cell types.



Supplementary Figure 6: Uncropped scans of the most important blots. (a) Uncropped scans of CHEK2. (b) Uncropped scans of GAPDH. (c) Uncropped scans of RRM2. (d) Uncropped scans of β -actin.

Supplementary Table 1 the primer sequence of each medel gene

Gene	Gene ID	primer sequence
CHEK2	11200	TCTCGGGAGTCGGATGTTGAG CCTGAGTGGACACTGTCTCTAA
KRT18	3875	TCGCAAATACTGTGGACAATGC GCAGTCGTGTGATATTGGTGT
MMP1	4312	GGGGCTTGATGTACCCTAGC TGTCACACGCTTTGGGGTTT
CHRNA5	1138	AAAGATGGGTTCGTCCTGTGG CAAACAAAACGATGTCTGGTGTC
TMPRSS4	56649	ATGCGGAACTCAAGTGGGC CTGTTGTCGTACTGGATGCT
ITGB4	3691	GCTTCACACCTATTCCTGTC GACCCAGTCCTCGTCTTCTG
CD79a	973	CAAGAACCGAATCATCACAGCC TCTGCCATCGTTCTGAACA
CTLA4	1493	GCCCTGCACTCTCCTGTTTTT GGTTGCCGCACAGACTTCA
RRM2	6241	GTGGAGCGATTAGCCAAGAA CACAAAGGCATCGTTCAATGG
GAPDH	2597	CTGGGCTACACTGAGCACC AAGTGGTCGTTGAGGGCAATG
ACTB	60	CATGTACGTTGCTATCCAGGC CTCCTTAATGTCACGCACGAT

Supplementary Table 2. The information of 2090 genes related to PCD

Apoptosis	Pyroptosis	Ferroptosis	Autophagy	Necroptosis	Cuprotosis	Parthanatos	Entotic cell death	Neritic cell death	Lysosome -dependent cell death	Alkalipotisis	Disulfidoprosis	Oxeiptosis
AATF	BAK1	ABC1	ABL1	GLUD1	FDX1	PARP	AMPK	ELANE	ABC2	IKBKB	SLC7A11	PGAM5
ABL1	BAX	ACACA	ABL2	GLUD2	LIAS	MIF	ATG5	MMP1	ABC9	NFKB1	SLC3A2	KEAP1
ACAA2	CASP1	ACO1	ACER2	ALOX15	LIP1	AIM1	ATG7	MPO	ACP2	CA9	RPN1	AIFM1
ACKR3	CASP3	ACSF2	ADRA1A	FTH1	DLD	HSP70	BECN1	CAMP	ACP5	CHUK	NCKAP1	NRF2
ACVR1	CASP4	ACSL1	ADR2	PYG	DLAT	PAAN	CD42	PADI4	ADGRE2	IKBKG	ZNF484	AIRE
ACVR1B	CASP5	ACSL3	AKT1	CAPN1	PDHA1	ARH3	CDH1	EIPA	AGA	NFKB1A	CCNC	
ADORA1	CASP6	ACSL4	AMBRA1	CASP1	PDHB	RNF146	CTNNA1	NCX1	AP1B1	RELA	MSH3	
AEN	CASP8	ACSL5	ATF6	GLNA	MTF1	ADPRHL2	CYBB	MIA	AP1G1		CCT5	
AGT	CASP9	ACSL6	ATG101	BAX	GLS	OGG1	MYH14		AP1M1		SKA1	
AGTR2	CHMP2A	AIIM2	ATG13	BCL2	CDKN2A	Pi3KC3			AP1M2		ZCCHC14	
AIFM1	CHMP2B	AKR1C1	ATG14	FADD	GCSH	RHOA			AP1S1		SCGB3A2	
AKT1	CHMP3	AKR1C2	ATG2A	RIPK1	ATP7A	RNF146			AP1S2		HOXA2	
ANXA6	CHMP4A	AKR1C3	ATG2B	TNF	ATP7B	ROCK			AP1S3		RABL3	
APAF1	CHMP4B	ALEX12	ATG5	TNFRSF1A	SLC31A1	RUBCN			AP3B1		CPM	
APPL1	CHMP4C	ALOX15	ATG7	TRADD	UVRAG				AP3B2		C12orf75	
AR	CHMP6	ALOX5	ATM	TRA2					AP3D1		WDR44	
ARHGEF2	CHMP7	ATG5	ATP13A2	PP1A					AP3M1		POU4F1	
ARL6IP5	CYCS	ATG7	ATP6VOA1	CAPN2					AP3M2		AKIRIN1	
ARMC10	ELANE	ATP5MC3	ATP6VOA2	HSP90A					AP3S1		C9orf72	
ARRB2	GPX4	BACH1	ATP6VOB	IL1A					AP3S2		LIX1	
ASAH2	GSDMD	CARS	ATP6VOC	TNFSF6					AP4B1		ELTD1	
ATF3	GSDMD	CBS	ATP6VD1	TNFRSF6					AP4E1		KIF7	
ATF4	GSDMD	CD44	ATP6VD2	CASP8					AP4M1		RPD1A	
ATM	GSDME	CHAC1	ATP6VE1	JNK					AP4S1		SERpine2	
ATP2A1	GZMB	CISD1	ATP6VE2	JAK2					ARF1		IP09	
ATP2A3	HMGGB1	CP	ATP6VIA	CAMK2					ARL8B		MTMR2	
ATP5IF1	IL18	CRYAB	ATP6VIB1	IL1B					ARSA		LONRF1	
AVP	IL1A	CS	ATP6VIB2	IFNG					ARSB		ARC	
BAD	IL1B	CYBB	ATP6VIC1	STAT3					ARSG		NRROS	
BAG3	IRF1	DPP4	ATP6VIC2	IRF9					ASA1		MBOAT2	
BAG5	IRF2	EMC2	ATP6VID	TNFSF10					ATP10B		RGA4	
BAG6	NLRC4	FADS2	ATP6VIE1	TNFRSF10A					ATP13A2		TXNRD1	
BAK1	NLRP1	FANCC2	ATP6VIE2	TNFRSF10B					ATP6AP1		C6orf203	
BAX	NLRP2	FDTF1	ATP6VIG1	CFLAR					ATP6VOA1		DEFB119	
BBC3	NLRP3	FTH1	ATP6VIG2	XIAP					ATP6VOA2		FMO3	
BCAP31	NLRP6	FTL	ATP6V1H	BID					ATP6VOA4		EV12B	
BCL10	NLRP7	FTMT	AUP1	AIM1					ATP6VOB		KRT83	
BCL2	NOD1	G6PD	BAD	TRPM7					ATP6VOC		KRTAP20-3	
BCL2A1	PLCG1	GCLC	BAG3	IFNAR1					ATP6VD1		ACAP2	
BCL2L1	PJVK	GCLM	BCL2	IFNAR2					ATP6VD2		NUTF2	
BCL2L10	PRKAC	GLS2	BCL2L11	IFNGR1					ATP6V1H		ZNF547	
BCL2L11	PYCARD	GOT1	BECN1	IFNGR2					BLK		TMEM97	
BCL2L12	SCAF11	GPX4	BMF	TLR3					BLOC1S1		AGXT2	
BCL2L14	TINAP	GSS	BNIP3	TIRP					BLOC1S2		FAM186A	
BCL2L2	TNF	HMGCR	BNIP3L	IFNA					BORCS5		WDFY1	
BCL3	TP53	HMOX1	BOK	IFNB					BORCS6		JUP	
BCLAF1	TP63	HSBP1	C9orf72	TRIF					BTK		PDE5A	
BDKR82	AIM2	HSBP1	CALCOCO2	VDAC1					C12orf4		UBL4B	
BDNF	GSDMA	Ireb2	CAMKK2	SLC25A4S					CBI		SCN2B	
BECN1	IL6	KEAP1	CAPN1	PP1D					CD164		CEP192	
BID	NOD2	LPCAT3	CAPNS1	CYLD					CD300A		HIST1H3B	
BIK	TIRAP	MAP11C3A	CASP1	RIPK3					CD63		UGDH	
BIRC6		MAP11C3B	CASP3	MLKL					CD68		MC4R	
BLOC1S2		MAP11C3C	CDC37	TRAF5					CD84		MED25	
BMF		MT1G	CDK5	TLR4					CHGA		GAPT	
BMP4		NCOA4	CDK5R1	RBC1					CLN3		MROH2B	
BMP5		NFE2L2	CHMP4A	HMGB1					CLN5		ISG20	
BMPR1B		NFS1	CHMP4B	JAK1					CLNK		SNX10	
BNIP3		NOX1	CISD2	JAK3					CLTA		SLC01C1	
BNIP3L		NQO1	CLEC16A	TYK2					CLTB		CALB1	
BOK		NRF2	CLN3	STAT1					CLTC		CFDP1	
BRCA1		OTUB1	CLU	STAT2					CLTCL1		VPS35	
BRCA2		PCBP1	CPTP	STAT4					CLU		HRASLS	
BRSK2		PCBP2	CSNK2A2	STAT5A					CPLX2		PSMA6	
BTK		PEPB1	CTSA	STAT5B					CTNS		PLD3	
CAAP1		PGD	CTTN	STAT6					CTSA		EIF3F	
CASP1		PHKG2	DAP	H2A					CTSB		TM2D3	
CASP10		PRNP	DAPK1	TNFAIP3					CTSC		ACACB	
CASP12		PROM2	DAPK2	RNF31					CTSD		CMAS	
CASP2		PTGS2	DAPK3	CHMP2A					CTSE		ZNF20	
CASP3		RPL8	DAPL1	CHMP2B					CTSF		B2M	
CASP4		SAT1	DCN	VPS24					CTSG		TMC4	
CASP5		SAT2	DDIT3	CHMP4A					CTSH		CDKN2AIP	
CASP8		SLC11A2	DDRKG1	CHMP4B					CTSK		ADD1	
CASP8AP2		SLC1A5	DEPD5	CHMP6					CTSL		BHMT2	
CASP9		SLC39A14	DEPP1	VPS4					CTSO		TOX4	
CAV1		SLC39A8	DHRSX	CHMP1					CTSS		SLC25A23	
CCAR2		SLC3A2	DNM1L	CHMP5					CTSV		ARHGAP31	
CCK		SLC40A1	DRAM1	SMPD1					CTSW		CCDC37	
CD14		SLC7A11	DRAM2	PYCARD					CTSZ		FND3B	
CD24		SQLE	EEF1A1	NLRP3					DEF8		UBE2D2	
CD27		STEAP3	EEF1A2	ZBP1					DNAE2		CDC23	
CD28		TF	EIF2AK4	IL33					DNAE2B		DDX5	
CD38		TFRC	EIF4G1	FTL					ENTPD4		THSD7B	
CD3E		TP53	EIF4G2	SQSTM1					FAM98A		RP11-93B14.6	
CD44		VDAC2	ELAPOR1	VDAC2					FER		PDCD6	
CD5		VDAC3	EP300	VDAC3					FES		GPX4	
CD70		ZEB1	EPM2A	CHMP7					FGR		RUVBL2	
CD74			ERCC4	PGAM5					FLCN		ZNF691	
CDIP1			ERN1	BIRC2					FOXF1		ANQ8	
CDKN1A			EXOC1	BIRC3					FTH1		NOP10	
CDKN2D			EXOC4	EIF2AK2					FTL		BANF2	
CEBPB			EXOC7	PLA2G4					FUC1A		PFKFB3	
CFLAR			EXOC8	DNM1L					GAA		SPO11	
CHAC1			FBXL2	SPATA2					GAB2		OLFM1	
CHCHD10			FBXO7	FAF1					GALC		HIST4H4	
CHEK2			FBXW7	SHARPIN					GALNS		SCN11A	
CIB1			FEZ1	NOX2					GATA2		MEGF8	
CIDEB			FEZ2	USP21					GBA		FAM163B	
CLU			FLCN	PARP1					GCC2		USP19	
COA8			FOXX1	CHMP4C					GGAA		OR1N2	
COL2A1			FOXX2						GGAA2		CXCL13	
CRADD			FOXO1						GGAA3		SAP30B	
CREB3			FOXO3						GLA		ATP6VOA2	
CREB3L1									GLB1		PSMB4	
CRH									GM2A		APRT	
CRIP1									GNPTAB		POLR1D	
CSF2									GNPTG		KRT73	
CSNK2A1									GNS		GPR61	
CSNK2A2									GUSB		CPZ	
CTH									HDAC6		SPINT3	
CTNN1									HEXA		EFCAB7	
CTSC									HEXB		ZNF639	
CTTN									HGS		HIST1H2BB	
CUL1									HGSNAT		LSM4	
CUL2									HMOX1		LRRC10	
CUL3									HPS6		PLD2	

CUL4A	GSK3A	HSPA8	LMO7
CUL5	GSK3B	HYAL1	CCT6A
CX3CL1	HAX1	IDS	APBA1
CX3CR1	HDAC6	IDUA	WFDC1
CXCL12	HERC1	IGF2R	CER1
CYLD	HGF	IL13	UBR4
CYP1B1	HIF1A	IL13RA2	PTGES3L-AARSD1
DAB2IP	HMGCB1	IL4	OR1G1
DAP	HMOX1	IL4R	PRKACA
DAP3	HSP90AA1	KIF1B	FBXW5
DAPK1	HSPA8	KIT	PHGDH
DAPK2	HSPB1	KXD1	DDIT4
DAPK3	HSPB8	LAMP1	KLHL11
DAPL1	HTR2B	LAMP2	HNRNPA1
DAXX	HTRA2	LAMP3	SGCD
DBH	HTT	LAMTOR1	LRBA
DCC	HUWE1	LAFTM4A	AP3B1
DDIAS	IFI16	LAFTM4B	FAM86B1
DDIT3	IFNG	LAFTM5	KCTD19
DDIT4	IKBKG	LAT	EXOC7
DDX3X	IL10	LAT2	IFNA7
DDX47	IL10RA	LGALS9	MSH6
DDX5	IL4	LGMLN	SIRT7
DEDD	IRGM	LIPA	MGAT2
DEDD2	ITPR1	LRRK2	FAM126A
DELE1	KAT5	LYN	XPOT
DEPTOR	KAT8	M6PR	HIST1H3A
DIABLO	KDM4A	MAN2B1	CASP14
DIDO1	KDR	MANBA	C16orf96
DNAJA1	KEAP1	MAP1LC3A	TNFAIP2
DNAJC10	KIF25	MAP6	LIPH
DNM1L	KLHL22	MCOLN1	LTB
DPF2	KLHL3	MFSD8	ALDH3A2
DYRK2	LACRT	MILR1	HEXDC
E2F1	LAMP1	MRGPRX2	SIAE
E2F2	LAMP2	MT3	SEMA3D
EDA2R	LAMP3	MYH9	RNPS1
EIF2AK3	LAMTOR1	NAGA	NEK11
ELL3	LAMTOR2	NAGLU	SLC1A6
ENO1	LAMTOR3	NAGPA	NPC1
EP300	LAMTOR4	NAPSA	PROL1
EPHA2	LAMTOR5	NCOA4	SE2
EPO	LARP1	NDEL1	IL1RAP
ERBB3	LEP	NEDD4	CENPH
ERCC6	LEPR	NEU1	ZNF296
ERN1	LGALS8	NPC1	CCDC149
ERN2	LRRK2	NPC2	TADA2A
ERO1A	LRSAM1	NR4A3	GDPP3
ERP29	LZTS1	PDPK1	NPTN
EYA1	MAP1LC3A	PIK3C3	FBXW11
EYA2	MAP1LC3B	PIK3CD	TMEM101
EYA3	MAP1LC3C	PIK3CG	SUPT16H
EYA4	MAP3K7	PIP4K2A	LAMTOR1
FADD	MAPK15	PIP4K2B	CYLC1
FAF1	MAPK3	PIP4P1	ARL3
FAIM	MAPK8	PLA2G15	FBXW12
FAIM2	MAPT	PLA2G3	CCDC108
FAM162A	MCL1	PLEKHM1	ITPA
FAS	MEFV	PLEKHM2	TOMM6
FASLG	MET	PPT1	SLC17A3
FASTK	MFN2	PPT2	H3F3B
FBH1	MFSD8	PSAP	HACL1
FBXW7	MID2	PSAPL1	ATP7B
FEM1B	MIR199A1	PTGDR	PKIB
FGA	MIRLET7B	PTGDS	KLHL10
FGB	MLST8	RAB34	SS18
FGF10	MT3	RAB3A	ZNF812
FGFR1	MTCL1	RAB7A	DIS3L2
FGFR3	MTDH	RAC2	TRPT1
FGG	MTM1	RUBCNL	PGRM32
FHT1	MTMR3	S100A13	CDYL
FIGNL1	MTMR4	SCARB2	OR8B12
FIS1	MTMR8	SGSH	ENGASE
FNIP2	MTMR9	SLC11A1	RANBP3
FXN	MTOR	SLC11A2	SLC39A5
FYN	NCOA4	SLC17A5	NOL8
FZD9	NEDD4	SMPD1	ADAM22
G0S2	NLRP6	SNAP23	SLC52A2
GABARAP	NOD1	SNAPIN	ZNF280D
GATA1	NOD2	SNX16	HIST1H3E
GATA4	NPC1	SNX4	PRKCSH
GCLM	NPRL2	SORL1	PFDN2
GDNF	NRBP2	SORT1	SLC7A6QS
GFRAL	NUPR1	SPAG9	POMZP3
GGCT	OPTN	SPHK2	PRMT3
GHITM	ORMDL3	SQSTM1	DHODH
GNAI2	OSBPL7	STXBP1	CEP85L
GNAI3	PAFAH1B2	STXBP2	C12orf68
GPER1	PARK7	SUMF1	NSMF
GPX1	PHB2	SYK	TIMM17B
GRINA	PHF23	SYTL4	DDX52
GSDME	PIK3C2A	TCIRG1	BAI3
GSK3A	PIK3C3	TFEB	KLHL28
GSK3B	PIK3CA	TMEM106B	BACH2
GSKIP	PIK3CB	TPP1	PRKAG2
GSTP1	PIK3R2	UNC13D	RPS11
GZMB	PIM2	VAMP7	MAP1LC3B
HDAC1	PINK1	VAMP8	SLC8A3
HERPUD1	PIP4K2A	VP533A	SLFN14
HGF	PIP4K2B	VP533B	SECISBP2L
HIC1	PIP4K2C	VP54A	NECAB2
HIF1A	PJVK	WASH3P	ATP6AP1
HINT1	PLEKH1	ZFYVE16	FOSB
HIP1	PLK2		LACC1
HIP1R	PLK3		LMOD1
HIPK1	POLDIP2		ZNF221
HIPK2	PRKAA1		SLC35E3
HMGB2	PRKAA2		ZNF543
HMOX1	PRKAB1		CBY3
HNRNPK	PRKAB2		CHRNA5
HRAS	PRKACA		M6PR
HRK	PRKAG1		FANCG
HSPA1A	PRKAG2		TRIB1
HSPA1B	PRKAG3		ABCC12
HSPB1	PRKD1		SPCS2
HTRA2	PRKN		TMEM177
HTT	PSAP		ACTR1A
HYAL2	PTPN22		ANKHD1-EIF4EBP3
HYOU1	PYCARD		

ICAM1	QSOX1	ELMO3
IFI16	RAB39B	TCTN3
IFI27	RAB3GAP1	APEX2
IFI27L1	RAB3GAP2	TOMM22
IFI27L2	RAB7A	ZNF446
IFI6	RAB8A	ANTXR1
IFNB1	RALB	B4GALT3
IFNG	RASIP1	DCAF13
IGF1	RB1CC1	JUN
IKBKE	RETREG1	TXNDC9
IL12A	RETREG3	PEX16
IL19	RHEB	UBAC2
IL1A	RIPK2	HCN1
IL1B	RMC1	ASB10
IL2	RNF152	ST6GALNAC3
IL20RA	RNF41	FAM124A
IL33	RNF5	ZMAT1
IL4	ROCK1	ERVV-2
IL6R	RPTOR	OBP2A
IL7	RRAGA	VBP1
INCA1	RRAGB	TTL2
ING2	RRAGC	CENPL
ING5	RRAGD	CCDC70
INHBA	RUBCN	TNMD
INHB8	RUFY4	EBP
INS	SCFD1	LYPD3
ITGA6	SCOC	GGA3
ITGAM	SEC22B	ASB9
ITGAV	SESN1	NOP16
ITM2C	SESN2	OR10AD1
ITPR1	SESN3	ANTXR2
ITPRIP	SH3BP4	HNRNPR
IVNS1ABP	SH3GLB1	AFAP1
JAK2	SIRT1	Eif6
JMY	SIRT2	TAS2R41
JUN	SLC38A9	MYPN
KDM1A	SMCR8	HIST1H4A
KITLG	SMG1	LRRK1
KRT18	SNCA	GEMIN2
KRT8	SNRNP70	GRN
LCK	SNX32	SAT2
LGALS12	SNX5	LRRC7
LGALS3	SNX6	GDPD1
LRRK2	SOGA1	CYB5B
LTBR	SOGA3	URB2
LY96	SPTLC1	ACADV1
MADD	SPTLC2	PKD2
MAEL	SQSTM1	UQCRRB
MAGEA3	SREBF1	NGLY1
MAP2K5	SREBF2	CISD1
MAP3K5	STAT3	NAPB
MAPK7	STBD1	CCL7
MAPK8	STING1	COL4A3BP
MAPK8IP1	STK11	CYHR1
MAPK8IP2	STUB1	KIAA0232
MAPK9	SUPT5H	PIGK
MARCHF7	SVIP	TMPRSS4
MAZ	SYNPO2	RBMX2
MCL1	TAB2	TMEM16B
MDM2	TAB3	WDR7
MELK	TBC1D14	MRPL4
MFF	TBC1D25	DAZAP1
MIF	TBK1	R3HCC1L
MIR132	TEX264	C12orf66
MIR15A	TFEB	PELI2
MIR16- 1	TICAM1	CYB561D1
MIR17	TIGAR	LEFTY1
MIR198	TLK2	PRKG2
MIR21	TMEM150A	GBAS
MIR210	TMEM150B	KIAA1731
MIR221	TMEM150C	MAP2
MIR222	TMEM39A	YPEL1
MIR26B	TMEM39B	WDR87
MIR27B	TMEM59	SLC25A38
MIR449A	TOMM7	NXT1
MKNK2	TP53	GABPB2
MLH1	TP53INP1	OSCP1
MLLT11	TP53INP2	RFC2
MMP9	TPCN1	TNC
MNT	TPCN2	BTG2
MOAP1	TREM2	TCF4
MPV17L	TRIB3	SCAMP4
MSH2	TRIM13	STAM2
MSH6	TRIM14	CCDC61
MSX1	TRIM21	ZNF259
MUC1	TRIM22	FOXP4
MUL1	TRIM27	WNT9A
MYBBP1A	TRIM34	MYRIP
NACC2	TRIM38	KIF18A
NANOS3	TRIM5	CDK18
NBN	TRIM6	SLC46A3
NCK1	TRIM65	TLE4
NCK2	TRIM68	HEXB
NDUFA13	TRIM8	COG5
NDUFS3	TRIML1	NRBP1
NFATC4	TRIML2	FAM89B
NFE2L2	TSC1	PRRG1
NGF	TSC2	ASB6
NGFR	TSP0	RPL36A
NKK3- 1	UBA5	INHBC
NLE1	UBQLN1	RRP1
NME5	UBQLN2	RAVER1
NMT1	UBQLN4	PCLO
NOC2L	UCHL1	KRT72
NOG	UFC1	UCHL1
NOL3	UFL1	DIS3L
NONO	UFM1	ZNF182
NOS3	ULK1	ZBTB8A
NOX1	USP10	KIAA1551
NR4A2	USP13	CHD1L
NUPR1	USP30	MSX1
OPA1	USP33	CEPT1
P2RX4	USP36	RTF1
P2RX7	UVRAG	CNIH4
P4HB	VDAC1	IFI44
PAK2	VPS13C	IL2
PAK5	VPS13D	RNF14
PARK7	VPS26A	SLC6A1
PARP1	VPS26B	ZFP30

PARP2	VPS35	ZDHHC23
PAWR	WAC	EID1
PCGF2	WASHC1	F7
PDCD10	WDFY3	CST7
PDCD5	WDR24	SPATA21
PDCD6	WDR41	ZNF280A
PDIA3	WDR6	GTF2F1
PDK1	WDR81	IDH2
PDK2	WIP12	RNF32
PDPK1	ZC3H12A	CDC25B
PDX1	ZKSCAN3	CTIF
PEA15	ZMPSTE24	TEAD2
PEL13		PROX1
PERP		SRSF6
PF4		LAX1
PHIP		MED16
PHLDA3		STAT3
PIAS4		PDZK1
PIDD1		LYPD4
PIH1D1		CES3
PIK3R1		AMACR
PINK1		PDAP1
PLAGL2		CCM2
PLAUR		PEX5L
PLEKH1		FAM210A
PLSCR3		PAPSS1
PMAIP1		SNX12
PML		C20orf202
POLB		MICU2
POU4F1		LSM5
POU4F2		PF4
PPARD		ZNF506
PPIA		RD3L
PPIF		HOXB13
PPM1F		CCDC158
PPP1CA		FAM166A
PPP1R13B		C12orf61
PPP1R15A		DYNC1H1
PPP2R1B		UTS2B
PPP3CC		TM2D2
PPP3R1		CAPSL
PRDX2		TNN
PRELD1		UBAC1
PRKCA		FABP12
PRKCD		GTF2E2
PRKDC		EML6
PRKN		GP9
PRKRA		TCF20
PRODH		NCB1
PSEN1		TMED4
PSMD10		TRIM47
PSME3		GNG12
PTEN		C15orf60
PTGIS		CYLC2
PTH		ATP1F1
PTPMT1		EXT1
PTPN1		YARS
PTPN2		NMNAT2
PTPRC		GARNL3
PTTG1IP		DEFB108B
PYCARD		KRCC1
QARS1		SERpine3
RACK1		PTGR2
RAF1		SHISA6
RB1		FEM1C
RB1CC1		TRA2A
RBCK1		MDP1
RELA		SNRPB2
RET		TTC17
RFPL		PKIA
RHOT1		AP1M1
RHOT2		DHRS11
RIPK1		IFI27L2
RIPK3		CRCP
RNF183		HIST1H2BM
RNF186		CLDN18
RNF34		AMPD1
RNF41		OR512
RPL11		CDK6
RPL26		AFF1
RPS27L		ITGB8
RPS3		RPS21
RPS6KB1		MCPH1
RPS7		AP1G1
RRP8		DDN
RTKN2		ACOT2
RTL10		HIST2H2AC
S100A8		LRRK32
S100A9		HS6ST2
SCG2		TFAP2C
SCN2A		RBMS2
SCRT2		LAPTM5
SELENOK		TSACC
SELENOS		FBXL20
SENP1		ZNF317
SEPTIN4		TWIST2
SERINC3		TNXB
SERpine1		PNN
SFN		ZRANB1
SFPQ		EIF4B
SFRP1		RBM34
SFRP2		HCAR3
SGMS1		TMPRSS3
SGPL1		TMX2
SGPP1		SERPINB1
SH3RF1		FAM161A
SHH		EFCC1
SHISA5		OR1A1
SIAH1		CENPW
SIAH2		ZNF697
SIRT1		RAB9B
SIVA1		SH2D2A
SKIL		TMEM88
SLC25A5		TNFRSF17
SLC35F6		UBP1
SLC9A3R1		CORO1C
SMAD3		C20orf195
SNAI1		DIXDC1
SNAI2		IGSF9

SNW1	AQR
SOD1	CACFD1
SOD2	IMPG2
SORT1	PMVK
SP100	ZFP90
SRC	PGLYRP4
SRPX	AKAP14
SST	KLF3
SSTR3	PRELID1
ST20	VPS18
STK11	SQL6
STK24	PSME1
STK25	C20orf112
STK3	KATNB1
STK4	C8orf37
STRADB	MPZ
STX4	CYP2R1
STYXL1	C7orf55
SYVN1	PEX14
TAF9	BCL2L2
TAF9B	C7orf50
TCFL2	RPRP12
TERT	ZNF160
TFDP1	TRHR
TFDP2	NCAPH
TFPT	ZC3H7B
TGFB1	WDR70
TGFB2	RSPH3
TGFBR1	HSPB7
THBS1	METTL13
TICAM1	C21orf33
TICAM2	DPYS
TIMM50	EIF4EBP3
TIMP3	WBSCR28
TLR3	ABCG1
TLR4	TSR1
TM2D1	FBXL2
TMBIM1	SMAD4
TMBIM6	KRT78
TMC8	AKT2
TMEM102	MXD3
TMEM109	ADAM15
TMEM117	C1orf74
TMEM14A	ATXN1L
TMEM161A	SLC29A3
TNF	LHFP3
TNFAIP3	CA11
TNFRSF10A	DEGS1
TNFRSF10B	WFDC3
TNFRSF10C	ZNF606
TNFRSF10C	ARHGEF7
TNFRSF1A	GPR125
TNFRSF1A	APIP
TNFRSF1B	JDP2
TNFRSF25	ARHGAP12
TNFSF10	MED12
TNFSF12	MUC22
TOPORS	NUP133
TP53	TMCO5A
TP53BP2	MAPK8IP1
TP63	SNRK
TP73	GNAT2
TPD52L1	ATP5L2
TPT1	NDST1
TRADD	TMED1
TRAF1	KRTAP10-9
TRAF2	SMIM9
TRAF7	TP11
TRAP1	GIN51
TRIAP1	ANKRD39
TRIB3	TYROBP
TRIM32	KDR
TRIM39	USMG5
TXNDC12	FAM219B
TYROBP	SOAT1
UACA	P4HA3
UBB	ZNF181
UBE2K	TOMM5
UBE4B	PLSCR4
UBQLN1	ZNF678
UMOD	GABRG3
UNC5B	TBC1D13
URI1	NUP43
USP28	COL4A3
USP47	STMN4
VDAC2	SERPINA4
VNN1	IWS1
WDR35	WFDC8
WNT4	BCLAF1
WWOX	ATG13
XBP1	MLLT10
YAP1	DTNB
YBX3	CIB4
YWHAB	SEMA5B
YWHAE	NFATC4
YWHAG	ITGB4
YWAH	C19orf45
YWHAQ	ATRX
YWHAZ	PNPLA1
ZC3H1	RP11-389E17.1
ZDHHC3	STMN3
ZMYND11	CD79A
ZNF205	TRIM69
ZNF385A	DPPA5
ZNF385B	GALNTL6
ZNF622	RAB32
ZSWIM2	SRRM5
	RPP14
	GATA5
	SPHKAP
	EPM2AIP1
	RAB4A
	EGFL6
	CGREF1
	C3orf14
	RPLP0
	GD1
	RNF220
	ZNF865

POLR2C
FDXACB1
KRTAP4-3
TBX18
ZNF180
JKAMP
LAIR1
SPTSSA
MYH14
DET1
EBI3
RNF26
CTBP1
SLAIN2
PLEKHA5
TNPO3
STK16
DIEKF
C7orf62
45261
KRT222
HLCS
TGIF1
NECAP1
SYT5
FEM1A
FGF3
ZNF766
NRF1
DIP2B
TXN
44996
ANKRD16
DCN
C9orf117
ZDHHC4
UNC50
PIFO
NTN1
BCAS3
IL6ST
IGF2BP2
PRKRIR
REG3A
PEX12
POLR1B
RNASE2
FAM155B
DDI1
PIGL
RAD23B
GPR88
MYOZ3
SYNE2
CCL8
PIK3IP1
ZCCHC4
ELL3
C2orf47
PCYOX1
SARM1
ATP6V1A
ZNF749
ZNF449
ZEB1
SAV1
NKTR
TMPRS11D
RNASE13
FAM150A
PIGW
OCA2
SF11
GLO1
PCDHGA5
ZNF565
PEX6
GPC1
DHRS13
ART1
GRHPR
SDR42E1
DNMT1
LTA
EXOC1
RPS12
TAL2
CST9L
TAPT1
KLF1
GRAMD1A
HLA-B
NAV1
C16orf92
AFTP4
FAM83E
CLIP2
CXorf57
FUBP1
UBE2E1
AK5
ZNF653
TNRC6B
RAB37
OR52N1
SEC14L6
ZNF23
SULF1
C7orf41
STK17A
TARM1
RAB2A
CHST4
MAT2A
SLC35G2
UCMA
AFF2
TAX1BP3
COG2

P1K3CD
NME2
HIST1H2AB
TAGLN
MIP
SCRN1
ATAD3A
DDX1
C15orf53
KRTAP10-4
MMD2
MTHFS
ARSD
DCLRE1C
HSP90AB1
ITGAE
PWP2
HIST1H2AD
LRP5
USP18
RETNLB
CNTRL
HOXD9
CNTNAP1
COPE
PSD3
ZNF10
OSGIN2
EBLN1
TMEM44
DOK4
TRAF1
CENPO
SESN1
TAF9
RBBP7
ZNF419
DHX15
GML
CD97
RFWD3
RER1
TNFSF10
CORO2B
ICOSLG
MAP3K1
RGS6
ZNF407
CIRBP
SMYD2
FOLR3
C17orf85
STPG2
TSSC4
FZD1
MTMR4
AGBL3
GTF3C3
TLL11
UBXN2A
TGFBR2
CLIC5
ACSM5
OSCAR
TMEM57
MK1671P
KIAA0087
CCDC30
ECI1
TM9SF4
INF2
CDRT1
HM13
RAP1B
GSTA5
KATNAL2
MAS1L
CACNA1C
CDT1
HDGF1
GDAP2
SYCP1
STK3
BPI
GPR15
C7orf57
FAM217A
CDC42BPA
APOL4
TBC1D14
TTF2
LEPROTL1
HS3ST3A1
EDF1
WDR20
TMEM41A
FAM120B
IQCK
CENPI
PAK1IP1
CWC22
AEN
LSM7
GSK3B
ADAMTSL3
STK32C
POLE2
ESPNL
LILRA2
IFT88
KBTBD4
PLEKHO1
MBOAT1
MSANTD2
VCP
BFAR
NFIC
GAR1
ENDOV

CCDC144NL
UBE3C
PRPF3
OR9Q2
IFI35
ELF2
CCDC42B
CCDC176
ZBTB44
GRPEL1
PDC
ANKLE2
IGF2R
NRARP
ATP1A3
CSNK2B
NSF
PSMB6
MS4A13
PARD3
SND1
DND1
WBP5
OR6C74
KAL1
MTPN
ADAM17
SFn
POFUT1
MPND
MAGED1
NKRF
ATP5L
KCNMB2
CERS3
CTLA4
ZFP62
ZNF155
GTF2H1
SBF2
NT5M
CCNE1
FRG1
AQP6
ZBED4
GRB2
SERPINA3
ADM
AMZ2
CD200R1
C8B
IQGAP2
OR2M5
TTC4
TMEM102
INPP4A
RPS3A
RRM2
LPCAT3
WIBG
ANGPTL6
HIGD2B
PRKD1
FAM186B
PROSC
EMILIN3
TMEM219
MRPS36
TCEA3
KCNJ6
SNN

Supplementary Table 3 the information of 52 PCD genes in LUAD

gene_name	log2FoldCh _z	lfcSE	stat	pvalue	padj
BIK	2.00106575	0.16494956	12.1313796	7.2026E-34	1.8063E-32
BRCA1	1.47609135	0.1298307	11.3693554	5.9425E-30	1.1945E-28
CHEK2	1.47900828	0.11448219	12.9191119	3.5117E-38	1.1144E-36
E2F1	1.45776262	0.14270982	10.2148726	1.701E-24	2.4179E-23
E2F2	2.33705661	0.14668775	15.9321871	3.7887E-57	3.1126E-55
ENO1	1.18092634	0.0969699	12.1782778	4.0576E-34	1.0333E-32
GGCT	1.70031974	0.10841757	15.683065	1.9749E-55	1.5002E-53
ITM2C	1.19768671	0.11930083	10.0392153	1.0249E-23	1.3857E-22
KRT18	1.1940012	0.13106233	9.11017848	8.2247E-20	8.3628E-19
KRT8	1.27035247	0.13196229	9.62663268	6.1719E-22	7.3722E-21
MELK	3.61234179	0.17091169	21.1357206	3.734E-99	2.2388E-96
MLLT11	2.11705228	0.23467274	9.02129602	1.8588E-19	1.8361E-18
MMP9	1.99249621	0.20775452	9.59062751	8.7551E-22	1.0344E-20
PDK1	1.70997329	0.11719393	14.5909714	3.206E-48	1.7387E-46
PMAIP1	1.64251139	0.17565899	9.35056828	8.7178E-21	9.5872E-20
PPIF	1.07564269	0.09290903	11.5773752	5.3664E-31	1.1462E-29
RNF186	5.02292709	0.41123819	12.2141553	2.612E-34	6.7214E-33
TNFRSF25	1.93587869	0.15253312	12.6915301	6.5886E-37	1.9749E-35
GSDMB	1.72832504	0.14655752	11.7928102	4.2512E-32	9.6566E-31
AIM2	2.81494372	0.23369958	12.0451382	2.0573E-33	5.0425E-32
CP	3.48864787	0.2213479	15.7609259	5.778E-56	4.4813E-54
FANCD2	1.54039002	0.09936755	15.501943	3.3656E-54	2.416E-52
NQO1	3.03745694	0.21520204	14.1144432	3.0945E-45	1.4315E-43
PROM2	2.60571419	0.15844105	16.4459542	8.9661E-61	8.2867E-59
SLC7A11	3.06709536	0.23907255	12.8291405	1.1261E-37	3.5057E-36
EEF1A2	6.35492205	0.32779182	19.3870672	9.9236E-84	2.5301E-81
GAPDH	1.66196889	0.12132864	13.6980759	1.0425E-42	4.2006E-41
TRAF5	1.3295247	0.11439563	11.6221629	3.1798E-31	6.8712E-30
JAK3	1.10929702	0.11317958	9.80121167	1.1124E-22	1.406E-21
CDKN2A	3.56299729	0.25871076	13.7721264	3.7501E-43	1.5592E-41
MMP1	4.92906306	0.28866086	17.0756197	2.2542E-65	2.5446E-63
BLK	1.24472433	0.22844929	5.44858051	5.0773E-08	1.8939E-07
CXCL13	2.64081676	0.24769246	10.6616761	1.538E-26	2.4757E-25
CHRNA5	3.63368293	0.23142646	15.7012424	1.4831E-55	1.1324E-53
TMEM177	1.57023601	0.08119442	19.3392115	2.5129E-83	6.0917E-81
DCAF13	1.33993053	0.09251592	14.4832426	1.5463E-47	8.0703E-46
TMPRSS4	4.82128759	0.21660475	22.2584577	9.341E-110	1.219E-106
TNC	1.55322054	0.21252172	7.30852613	2.7009E-13	1.6737E-12
HS6ST2	3.68510737	0.19440693	18.9556377	3.9672E-80	8.341E-78
IGSF9	3.23840393	0.16456882	19.6781138	3.3214E-86	9.823E-84
GINS1	3.03731533	0.14949818	20.3167375	9.1456E-92	3.8276E-89
ITGB4	1.67562812	0.1840665	9.10338454	8.756E-20	8.8827E-19
CD79A	2.01179515	0.21099868	9.53463385	1.5042E-21	1.7423E-20
CGREF1	4.2381889	0.24986005	16.9622513	1.5624E-64	1.7114E-62
FAM155B	3.20183609	0.23512578	13.6175458	3.1498E-42	1.2366E-40
SULF1	2.5454902	0.18184263	13.9983141	1.5961E-44	7.0738E-43

CENPO	1.10082225	0.10011498	10.9955796	4.0133E-28	7.1704E-27
CDT1	2.75137083	0.15787966	17.4270126	5.1465E-68	6.5987E-66
POLE2	2.34753114	0.13736272	17.0900159	1.7613E-65	2.0035E-63
CTLA4	1.03014025	0.15961947	6.45372537	1.0913E-10	5.3574E-10
CCNE1	3.28161507	0.1847596	17.76154	1.4033E-70	2.0411E-68
RRM2	3.19820731	0.1608815	19.8792735	6.1518E-88	2.0067E-85

Supplementary Table 4 the C-index of each model

TCGA	TCGA	GSE31210	GSE50081	GSE72094
Lasso	0.66576869	0.54465146	0.62315975	0.61824201
RSF+Lasso	0.66576869	0.54465146	0.62315975	0.61824201
RSF+Enet[alp	0.665707	0.54127851	0.62546693	0.61923523
Enet[alpha=0	0.66593321	0.54336653	0.62294001	0.61916901
RSF+Enet[alp	0.66593321	0.54336653	0.62294001	0.61916901
Enet[alpha=0	0.66568644	0.54433023	0.62294001	0.61837444
RSF+Enet[alp	0.66568644	0.54433023	0.62294001	0.61837444
CoxBoost+En	0.67496093	0.55187922	0.61590859	0.60857474
Enet[alpha=0	0.6662828	0.53822679	0.62656559	0.61940076
RSF+Enet[alp	0.6662828	0.53822679	0.62656559	0.61940076
CoxBoost+En	0.67498149	0.55155798	0.61579873	0.6079457
CoxBoost+Ri	0.67962902	0.54850626	0.6145902	0.60741599
CoxBoost	0.66617998	0.54481208	0.62272028	0.61595762
Enet[alpha=0	0.66387678	0.54240283	0.62294001	0.62029465
CoxBoost+La	0.67919717	0.55316415	0.61019556	0.60632346
Lasso+StepC	0.66626224	0.55701895	0.6197539	0.60562821
CoxBoost+St	0.66626224	0.55701895	0.6197539	0.60562821
RSF+Enet[alp	0.66679691	0.53356891	0.62997144	0.61691773
CoxBoost+St	0.67014889	0.54914873	0.61228302	0.60533024
Enet[alpha=0	0.66095665	0.53292644	0.61711712	0.62393643
GBM	0.77985934	0.58801799	0.53911228	0.52178447
Lasso+StepC	0.66346549	0.56103437	0.61535926	0.58814766
StepCox[both	0.66764004	0.54449085	0.61338167	0.59731833
StepCox[both	0.66788681	0.54465146	0.61283235	0.59711968
StepCox[both	0.65853007	0.54449085	0.61557899	0.60350935
StepCox[back	0.65853007	0.54449085	0.61557899	0.60350935
StepCox[back	0.6677223	0.54465146	0.61228302	0.59665618
StepCox[back	0.66794851	0.54465146	0.61107449	0.59629201
StepCox[both	0.66745496	0.54449085	0.61107449	0.5962589
StepCox[back	0.66745496	0.54449085	0.61107449	0.5962589
StepCox[back	0.66745496	0.54416961	0.61107449	0.59642443
StepCox[both	0.66776343	0.54465146	0.60986596	0.59635822
StepCox[both	0.66722876	0.54449085	0.61041529	0.59596093
StepCox[both	0.66731101	0.54449085	0.61019556	0.59592783
StepCox[both	0.66835979	0.54465146	0.60964623	0.59513326
StepCox[both	0.66755779	0.54449085	0.60964623	0.59592783
StepCox[back	0.66745496	0.54449085	0.60964623	0.59602715
StepCox[back	0.66735214	0.54416961	0.60997583	0.59602715
StepCox[back	0.66735214	0.54449085	0.6094265	0.59546433
StepCox[back	0.6682981	0.54481208	0.60964623	0.59377587
StepCox[back	0.66724932	0.54433023	0.60953637	0.59536501
StepCox[both	0.66739327	0.54433023	0.60931663	0.59539811
StepCox[back	0.66739327	0.54433023	0.60931663	0.59539811
StepCox[back	0.66729045	0.54433023	0.60920677	0.59539811
StepCox[both	0.66731101	0.54433023	0.60898704	0.59553054
StepCox[back	0.66747553	0.54416961	0.60898704	0.59543122

StepCox[bot	0.66747553	0.54416961	0.60898704	0.59539811
StepCox[bot	0.66745496	0.54416961	0.60887717	0.59546433
RSF+StepCc	0.66706424	0.54433023	0.60799824	0.5953319
RSF+StepCc	0.66706424	0.54433023	0.60799824	0.5953319
StepCox[bot	0.66706424	0.54433023	0.60799824	0.5953319
StepCox[bac	0.66706424	0.54433023	0.60799824	0.5953319
RSF+GBM	0.79587892	0.59139094	0.50043946	0.5223804
RSF+Enet[al	0.66087439	0.46980405	0.61810591	0.62403576
CoxBoost+C	0.79044995	0.49365564	0.53883762	0.51014733
StepCox[bot	0.77535576	0.49365564	0.53845309	0.51082602
StepCox[bac	0.77031751	0.49365564	0.53845309	0.51046184
Lasso+GBM	0.7963519	0.49365564	0.51054713	0.50554544
SuperPC	0.57304434	0.48715066	0.57547792	0.62264526
RSF+SuperP	0.61071811	0.48168969	0.57734564	0.54259229
survivalSVM	0.53539113	0.49469965	0.54372665	0.60440324
RSF+surviva	0.53539113	0.49469965	0.54372665	0.60440324
StepCox[bac	0.53495928	0.48939929	0.55603164	0.58652541
CoxBoost+s	0.54217735	0.48747189	0.51087673	0.62214865
Lasso+survi	0.54217735	0.48747189	0.51087673	0.62214865
StepCox[bot	0.52033808	0.48988114	0.54207866	0.58854494
StepCox[bac	0.52033808	0.48988114	0.54207866	0.58854494
CoxBoost+S	0.57964547	0.48297462	0.53900242	0.49084589
Lasso+Supe	0.57964547	0.48297462	0.53900242	0.49084589
StepCox[bot	0.54700995	0.47767427	0.52208306	0.52418474

Supplementary Table 5 GSVA results of each cohort

GSVA enrichment HALLMARK functions between high and low-PCDscoregroup in TCGA-LUAD

Tag	logFC	AveExpr	t	P.Value	adj.P.Val	B
G2M_CHECKPOINT	0.42998304	-0.0113618	12.6597597	4.34E-32	2.17E-30	61.9658964
GLYCOLYSIS	0.24251821	-0.0075697	12.3299912	1.03E-30	2.57E-29	58.8253401
MITOTIC_SPINDLE	0.30093883	-0.0047231	12.0151667	2.03E-29	3.38E-28	55.8687043
E2F_TARGETS	0.4334935	-0.0149688	11.7240958	3.07E-28	3.84E-27	53.1729615
MTORC1_SIGNALING	0.30668872	-0.0095757	11.3986298	6.15E-27	6.15E-26	50.2036044
MYC_TARGETS_V1	0.35919288	-0.0116238	9.9626753	1.84E-21	1.53E-20	37.7234268
MYC_TARGETS_V2	0.35153665	-0.0169624	9.73714142	1.21E-20	8.61E-20	35.8631201
UNFOLDED_PROTEIN_RESPONSE	0.22773726	-0.0064129	7.94971935	1.23E-14	7.72E-14	22.2122447
BILE_ACID_METABOLISM	-0.1239946	-0.0011298	-7.7473424	5.20E-14	2.89E-13	20.7985643
PI3K_AKT_MTOR_SIGNALING	0.15120251	-0.0073391	7.59457627	1.51E-13	7.55E-13	19.7504499
HYPOXIA	0.14897921	-0.0033061	7.4873665	3.16E-13	1.44E-12	19.0247976
DNA_REPAIR	0.1951959	-0.0067379	6.92268604	1.35E-11	5.64E-11	15.3408238
KRAS_SIGNALING_DN	-0.1260078	0.01010012	-6.4612133	2.45E-10	9.43E-10	12.5080213
PROTEIN_SECRETION	0.18100196	-0.0087568	6.24340183	9.10E-10	3.25E-09	11.2283771
ANDROGEN_RESPONSE	0.11459792	-0.0059022	5.39597773	1.05E-07	3.50E-07	6.61338642
UV_RESPONSE_UP	0.08345384	-0.0055775	5.12888863	4.16E-07	1.30E-06	5.28243715
REACTIVE_OXYGEN_SPECIES_PATHWAY	0.14434185	-0.0117754	5.00779339	7.63E-07	2.24E-06	4.69903531
CHOLESTEROL_HOMEOSTASIS	0.10623138	-0.0105162	4.83578366	1.76E-06	4.90E-06	3.89207295
ESTROGEN_RESPONSE_LATE	0.06875318	-0.007343	4.81700295	1.93E-06	5.08E-06	3.80551937
MYOGENESIS	-0.0948045	0.01335622	-4.6605996	4.04E-06	9.81E-06	3.09667202
APOPTOSIS	0.09373766	0.00393648	4.65633405	4.12E-06	9.81E-06	3.07764014
TGF_BETA_SIGNALING	0.11946048	0.00495005	4.35734017	1.60E-05	3.63E-05	1.78363209
OXIDATIVE_PHOSPHORYLATION	0.13485073	-0.0193127	3.65428447	0.00028493	0.00061941	-0.9425714
APICAL_JUNCTION	0.07593965	0.00695298	3.6378114	0.00030328	0.00063183	-1.0010349
PANCREAS_BETA_CELLS	-0.0939544	0.00324361	-3.5080215	0.00049183	0.00098366	-1.4528837
SPERMATOGENESIS	0.05428515	-0.0057223	3.00166792	0.00281817	0.00541955	-3.0653778
ADIPOGENESIS	0.06602383	-0.0057969	2.88314184	0.00410549	0.00760276	-3.4079259
TNFA_SIGNALING_VIA_NFKB	0.08016855	0.00163177	2.81181799	0.00511819	0.00913962	-3.607622
ESTROGEN_RESPONSE_EARLY	0.04424839	-0.0009256	2.75661871	0.00605192	0.01043243	-3.7588438
P53_PATHWAY	0.04974804	0.00139366	2.74540434	0.00625946	0.01043243	-3.7892108
ALLOGRAFT_REJECTION	-0.0848171	0.0087736	-2.5106537	0.01236269	0.01993982	-4.3972388
COAGULATION	-0.0506896	0.00809967	-2.3386001	0.01974601	0.03085314	-4.8092199
EPITHELIAL_MESENCHYMAL_TRANSITION	0.07868264	0.00266501	2.18576903	0.02929182	0.04438154	-5.1511681
APICAL_SURFACE	0.04443095	0.0070855	2.13203239	0.03348694	0.0492455	-5.2660148
KRAS_SIGNALING_UP	-0.0370139	0.01123759	-1.5994111	0.11035575	0.15458011	-6.251914
ANGIOGENESIS	0.04742117	0.01004451	1.59518433	0.11129768	0.15458011	-6.2586256
HEDGEHOG_SIGNALING	-0.0398238	0.01279106	-1.5514624	0.12141842	0.16407895	-6.327018
INTERFERON_ALPHA_RESPONSE	0.05717493	0.00368903	1.53022236	0.1265889	0.16656434	-6.3595635
NOTCH_SIGNALING	0.03039098	0.00995452	1.36722344	0.17216455	0.22072379	-6.5945156
IL6_JAK_STAT3_SIGNALING	-0.0388118	0.01547518	-1.3143251	0.18933447	0.23666809	-6.6651264
FATTY_ACID_METABOLISM	0.02847593	-0.0150587	1.26919339	0.20495772	0.24994844	-6.7231825
INFLAMMATORY_RESPONSE	-0.02999335	0.01428739	-1.0410861	0.29833461	0.35516025	-6.9857468
IL2_STATS5_SIGNALING	-0.0179283	0.00960439	-0.8588946	0.39080684	0.45442655	-7.1583645
UV_RESPONSE_DN	0.01510063	0.00811982	0.61950097	0.53586625	0.60893892	-7.3349738
XENOBIOTIC_METABOLISM	-0.0046306	-0.0050399	-0.2714782	0.7861344	0.87348267	-7.4898098
WNT_BETA_CATENIN_SIGNALING	-0.0053808	0.01080693	-0.244905	0.80662968	0.87677139	-7.4966639
HEME_METABOLISM	0.00319401	-0.0026309	0.19988756	0.84164912	0.8953714	-7.5066659
INTERFERON_GAMMA_RESPONSE	0.00392394	0.00991427	0.1146049	0.90880393	0.94272364	-7.520064
COMPLEMENT	0.00225769	0.00858394	0.09560892	0.92386917	0.94272364	-7.5220589
PEROXISOME	0.00036487	-0.0055697	0.02029711	0.98381439	0.98381439	-7.5264196

GSVA enrichment HALLMARK functions between high and low-PCDscoregroup in GSE50081

Tag	logFC	AveExpr	t	P.Value	adj.P.Val	B
MYC_TARGETS_V2	0.40454067	-0.0218388	10.1125869	1.82E-19	9.08E-18	33.5068961
E2F_TARGETS	0.4542404	-0.0324492	9.93925806	5.69E-19	1.42E-17	32.3768029
G2M_CHECKPOINT	0.39131737	-0.0223526	9.27730921	4.23E-17	7.05E-16	28.1196815
DNA_REPAIR	0.22437481	-0.0034042	7.33850811	6.33E-12	7.91E-11	16.3789228
GLYCOLYSIS	0.18534653	0.00473505	7.1953282	1.45E-11	1.45E-10	15.5671874
MTORC1_SIGNALING	0.26476318	-0.0001034	6.96182188	5.47E-11	4.55E-10	14.2629756
SPERMATOGENESIS	0.13705404	-0.0060736	6.84779986	1.04E-10	7.41E-10	13.6352906
MYC_TARGETS_V1	0.30548907	-0.0126652	6.73285571	1.97E-10	1.23E-09	13.008826
HYPOXIA	0.16560044	0.0061039	6.09035592	6.23E-09	3.46E-08	9.63090015
MITOTIC_SPINDLE	0.15126204	-0.0060318	5.2671278	3.77E-07	1.89E-06	5.6434051
UV_RESPONSE_UP	0.12084831	0.00347828	5.12768226	7.27E-07	3.30E-06	5.00969055
WNT_BETA_CATENIN_SIGNALING	0.12861425	-0.0004052	4.95076589	1.64E-06	6.83E-06	4.22421595
UNFOLDED_PROTEIN_RESPONSE	0.14989728	0.00489822	4.7716914	3.66E-06	1.41E-05	3.45081795
COAGULATION	-0.1177664	0.01808585	-4.0717475	6.87E-05	0.00024544	0.64814748
PI3K_AKT_MTOR_SIGNALING	0.09626966	0.00689624	3.74365221	0.00024101	0.00080338	-0.5379462

OXIDATIVE_PHOSPHORYLATION	0.15983546	0.00257858	3.70825231	0.00027465	0.00085827	-0.6608261
PANCREAS_BETA_CELLS	-0.0908402	0.00379563	-3.671425	0.00031431	0.00092445	-0.7875907
BILE_ACID_METABOLISM	-0.0851669	0.00110505	-3.5439368	0.00049747	0.00138185	-1.217932
HEME_METABOLISM	-0.0671888	0.0066789	-3.3548526	0.00096076	0.00252832	-1.8316055
CHOLESTEROL_HOMEOSTASIS	0.09404753	0.00375391	3.06572281	0.00249165	0.00622912	-2.7119347
KRAS_SIGNALING_UP	-0.0942171	0.01565082	-3.0135074	0.00293898	0.00699756	-2.863299
MYOGENESIS	-0.0770796	0.00837093	-2.7257852	0.00702189	0.01595885	-3.6546981
ALLOGRAFT_REJECTION	-0.1121135	0.00681413	-2.5527552	0.01148268	0.02475192	-4.0953148
APICAL_SURFACE	0.06964485	0.01044256	2.54043549	0.01188092	0.02475192	-4.1256613
REACTIVE_OXYGEN_SPECIES_PATHWAY	0.08625064	0.01095226	2.31909102	0.02146628	0.04293257	-4.6474128
UV_RESPONSE_DN	-0.0760233	0.01577033	-2.13201	0.03430572	0.06597254	-5.0533439
ESTROGEN_RESPONSE_LATE	0.04586458	0.00316417	2.04852074	0.04190057	0.07759365	-5.2240135
COMPLEMENT	-0.0688953	0.01452027	-1.8888201	0.06045753	0.10795988	-5.5322725
INTERFERON_GAMMA_RESPONSE	-0.0769053	0.0093865	-1.6105409	0.10895957	0.18786133	-6.011679
P53_PATHWAY	0.04184566	0.00392074	1.48662591	0.13879081	0.23131802	-6.2012956
ADIPOGENESIS	0.04480044	0.00963237	1.43334193	0.1534231	0.24745662	-6.2782763
FATTY_ACID_METABOLISM	0.0432274	0.01027545	1.30118142	0.19479071	0.30436048	-6.4573306
IL6_JAK_STAT3_SIGNALING	-0.0465006	0.01290892	-1.1488071	0.25209681	0.38196486	-6.6426508
APICAL_JUNCTION	0.03059531	0.00864547	1.11210333	0.26751554	0.38253949	-6.6838955
INFLAMMATORY_RESPONSE	-0.0434631	0.01356554	-1.1114923	0.26777764	0.38253949	-6.684571
INTERFERON_ALPHA_RESPONSE	-0.0520514	0.00513076	-1.0077681	0.31486268	0.43730928	-6.7939138
IL2_STAT5_SIGNALING	-0.0289072	0.01251047	-0.9355302	0.35071669	0.47394148	-6.8638088
TNFA_SIGNALING_VIA_NFKB	0.03045472	0.00770569	0.744868	0.45728278	0.60168787	-7.0235261
TGF_BETA_SIGNALING	-0.0269244	0.01479187	-0.6749166	0.50055896	0.64174226	-7.0730917
EPITHELIAL_MESENCHYMAL_TRANSITION	0.03122729	0.01094246	0.6319758	0.52817138	0.66021423	-7.1011105
PROTEIN_SECRETION	-0.0262293	0.01990055	-0.5966939	0.55143049	0.66146549	-7.1227598
XENOBIOTIC_METABOLISM	-0.0137783	0.01061572	-0.5854544	0.55894519	0.66146549	-7.1293963
APOPTOSIS	0.01588059	0.00974914	0.57073699	0.56886032	0.66146549	-7.1378963
KRAS_SIGNALING_DN	0.012086	0.00258651	0.48211778	0.63028377	0.71623155	-7.1845173
PEROXISOME	-0.009759	0.00261412	-0.3654055	0.71521999	0.79468888	-7.2339684
HEDGEHOG_SIGNALING	-0.0103351	0.00843458	-0.320666	0.7488201	0.79768747	-7.2493188
ANGIOGENESIS	0.01404232	0.01350775	0.31933666	0.74982623	0.79768747	-7.2497443
ESTROGEN_RESPONSE_EARLY	0.00200161	0.00758029	0.08052791	0.93590317	0.97489913	-7.2975159
ANDROGEN_RESPONSE	0.00133096	0.01443675	0.03999766	0.96813749	0.98743965	-7.2999604
NOTCH_SIGNALING	-0.0004665	0.00279287	-0.0157637	0.98743965	0.98743965	-7.3006366

GSVA enrichment HALLMARK functions between high and low-PCDscoregroup in GSE72094

Tag	logFC	AveExpr	t	P.Value	adj.P.Val	B
GLYCOLYSIS	0.21710328	-0.0059096	14.3845921	7.93E-39	3.97E-37	77.3308448
MYC_TARGETS_V2	0.35724782	-0.0181254	12.2438258	6.34E-30	1.58E-28	56.9627948
G2M_CHECKPOINT	0.30665288	-0.0173738	11.6562407	1.34E-27	2.24E-26	51.6454177
MYC_TARGETS_V1	0.2684288	-0.015591	11.5378618	3.89E-27	4.87E-26	50.590782
E2F_TARGETS	0.33545895	-0.0226865	11.4986279	5.53E-27	5.53E-26	50.2425272
MTORC1_SIGNALING	0.20777102	-0.006153	11.4602404	7.79E-27	6.49E-26	49.9024088
DNA_REPAIR	0.15891522	-0.0110652	9.89802454	5.12E-21	3.66E-20	36.6282953
MITOTIC_SPINDLE	0.13127992	-0.008993	8.60849483	1.27E-16	7.96E-16	26.6243335
UNFOLDED_PROTEIN_RESPONSE	0.13411516	-0.0063133	7.0604341	6.38E-12	3.55E-11	15.9739545
OXIDATIVE_PHOSPHORYLATION	0.14000901	-0.0114242	6.25885245	9.10E-10	4.55E-09	11.1198978
SPERMATOGENESIS	0.08030376	-0.0049354	5.94343803	5.62E-09	2.56E-08	9.34380679
ESTROGEN_RESPONSE_LATE	0.06905733	-0.0022501	5.71522399	2.00E-08	8.35E-08	8.10766535
BILE_ACID_METABOLISM	-0.0829384	0.0096038	-5.5688042	4.43E-08	1.71E-07	7.33659054
ALLOGRAFT_REJECTION	-0.1437355	0.01401155	-4.8829511	1.46E-06	5.21E-06	3.9599172
HYPOXIA	0.0842771	0.00031816	4.67018078	3.99E-06	1.33E-05	2.99306521
KRAS_SIGNALING_DN	-0.0469789	0.0068902	-4.468917	9.98E-06	3.12E-05	2.11450914
HEDGEHOG_SIGNALING	-0.0913385	0.00529667	-4.429016	1.19E-05	3.50E-05	1.94453034
REACTIVE_OXYGEN_SPECIES_PATHWAY	0.09825984	-0.0043763	4.27935369	2.29E-05	6.37E-05	1.31943595
KRAS_SIGNALING_UP	-0.0830934	0.0163604	-4.2252653	2.89E-05	7.62E-05	1.09839178
IL6_JAK_STAT3_SIGNALING	-0.1053056	0.01622959	-3.8265279	0.00014847	0.00037117	-0.4505068
MYOGENESIS	-0.0695615	0.00553376	-3.5989193	0.00035527	0.00084589	-1.2702205
UV_RESPONSE_DN	-0.0675196	0.00571081	-3.572143	0.00039253	0.00089211	-1.3635402
HEME_METABOLISM	-0.0396568	0.00064675	-3.4399678	0.00063638	0.00138344	-1.8145324
CHOLESTEROL_HOMEOSTASIS	0.06201232	-0.0013304	3.31714997	0.00098365	0.00199013	-2.2191329
IL2_STAT5_SIGNALING	-0.0657022	0.01273005	-3.312192	0.00100082	0.00199013	-2.2351724
INFLAMMATORY_RESPONSE	-0.0857084	0.0151908	-3.3025889	0.00103487	0.00199013	-2.2661739
UV_RESPONSE_UP	0.04417687	0.00029316	3.26428057	0.00118169	0.00218832	-2.3889915
PROTEIN_SECRETION	0.05112901	-0.0031184	3.22326058	0.00136016	0.00242886	-2.5189877
PI3K_AKT_MTOR_SIGNALING	0.0404931	0.00291661	2.88598284	0.00409087	0.00705322	-3.528099
COMPLEMENT	-0.0589269	0.0134598	-2.6770296	0.00770107	0.01283512	-4.0993966
APICAL_SURFACE	-0.0451841	0.00774715	-2.4779077	0.01358394	0.02190958	-4.6050983
FATTY_ACID_METABOLISM	0.04144669	-0.0061453	2.29511976	0.02218869	0.03438816	-5.0358288
EPITHELIAL_MESENCHYMAL_TRANSITION	0.07455196	0.00378558	2.28642747	0.02269618	0.03438816	-5.0555098

ANGIOGENESIS	0.05691404	0.00874816	2.17375336	0.03024784	0.04448211	-5.3040179
TGF_BETA_SIGNALING	-0.0394669	0.00478329	-1.8165594	0.06995427	0.09993467	-6.0103428
COAGULATION	-0.0310036	0.01303114	-1.651746	0.09928865	0.1379009	-6.2942443
INTERFERON_GAMMA_RESPONSE	-0.0480124	0.01126827	-1.5313757	0.12638401	0.1707892	-6.4847434
PEROXISOME	-0.0211117	-0.0018099	-1.4895197	0.13705582	0.1803366	-6.5476446
ESTROGEN_RESPONSE_EARLY	0.02020657	0.00047156	1.46365769	0.14399039	0.18460306	-6.5856476
APICAL_JUNCTION	0.02216599	0.00865736	1.15499329	0.24871026	0.31088783	-6.988233
ADIPOGENESIS	0.01307159	-0.0005836	0.83805422	0.40244817	0.49079045	-7.3033605
TNFA_SIGNALING_VIA_NFKB	-0.0214662	0.00237599	-0.7707944	0.44123602	0.52528098	-7.357389
PANCREAS_BETA_CELLS	-0.0124738	0.00066424	-0.7340097	0.46332769	0.53875313	-7.3850316
P53_PATHWAY	-0.0109465	0.00169943	-0.7163995	0.47411881	0.53877138	-7.3977879
NOTCH_SIGNALING	-0.0083827	0.00302563	-0.4278185	0.66898935	0.7433215	-7.562764
ANDROGEN_RESPONSE	-0.0045704	0.00171808	-0.3083337	0.75797209	0.80754753	-7.6067311
WNT_BETA_CATENIN_SIGNALING	-0.0054064	0.00235797	-0.3068576	0.75909468	0.80754753	-7.607185
INTERFERON_ALPHA_RESPONSE	0.00928355	0.01103864	0.26370867	0.79212594	0.82513119	-7.6194928
XENOBIOTIC_METABOLISM	-0.0020464	0.0031522	-0.1386375	0.88979905	0.90795821	-7.644652
APOPTOSIS	0.00119311	0.00997577	0.06645864	0.9470424	0.9470424	-7.6520538

GSVA enrichment HALLMARK functions between high and low-PCDscoregroup in GSE31210

Tag	logFC	AveExpr	t	P.Value	adj.P.Val	B
GLYCOLYSIS	0.38301869	-0.0045916	17.8020909	1.88E-46	9.40E-45	94.8974394
MTORC1_SIGNALING	0.42344306	-0.0113756	17.6310654	7.27E-46	1.82E-44	93.5474998
UNFOLDED_PROTEIN_RESPONSE	0.34561066	-0.0073474	15.6996736	3.39E-39	5.65E-38	78.2334782
MYC_TARGETS_V1	0.42612733	-0.0212983	14.9228096	1.65E-36	2.06E-35	72.0662094
E2F_TARGETS	0.47213655	-0.0312316	14.5898449	2.32E-35	2.32E-34	69.4277178
G2M_CHECKPOINT	0.39655946	-0.0246535	13.2063169	1.30E-30	1.08E-29	58.5345272
MYC_TARGETS_V2	0.39270014	-0.0242504	12.9347971	1.09E-29	7.80E-29	56.4166747
DNA_REPAIR	0.31020966	-0.009591	12.8536326	2.06E-29	1.29E-28	55.7852668
PROTEIN_SECRETION	0.29239919	-0.0016918	12.0273194	1.25E-26	6.92E-26	49.4088469
OXIDATIVE_PHOSPHORYLATION	0.33493972	-0.0122518	10.4670109	1.60E-21	7.99E-21	37.7162661
PI3K_AKT_MTOR_SIGNALING	0.19667989	-0.0029553	9.75058898	2.90E-19	1.32E-18	32.5554611
REACTIVE_OXYGEN_SPECIES_PATHWAY	0.20242751	-0.0036705	8.42099907	2.86E-15	1.19E-14	23.4464963
ANDROGEN_RESPONSE	0.14535941	-0.0028583	7.97689748	5.28E-14	2.03E-13	20.5665689
UV_RESPONSE_UP	0.15540818	-0.0011948	7.66841791	3.79E-13	1.35E-12	18.62101
HYPoxIA	0.18402293	-0.0014396	7.64554161	4.38E-13	1.46E-12	18.47861
MITOTIC_SPINDLE	0.14216575	-0.0077348	7.59127946	6.17E-13	1.93E-12	18.1419017
MYOGENESIS	-0.1515978	0.00011706	-6.8971616	4.26E-11	1.25E-10	13.9725988
INTERFERON_ALPHA_RESPONSE	0.27746548	0.00092603	6.56941935	2.88E-10	7.99E-10	12.0983408
UV_RESPONSE_DN	-0.1280173	0.00528306	-5.672464	3.85E-08	1.01E-07	7.31075993
INTERFERON_GAMMA_RESPONSE	0.20768953	0.00866199	5.58260145	6.12E-08	1.53E-07	6.8604878
APOPTOSIS	0.1158059	0.00641402	5.41669029	1.42E-07	3.37E-07	6.04396056
ADIPOGENESIS	0.13161947	0.0019125	5.24065913	3.39E-07	7.69E-07	5.19900919
FATTY_ACID_METABOLISM	0.12832255	-0.0023642	5.22506571	3.65E-07	7.94E-07	5.1252379
ESTROGEN_RESPONSE_LATE	0.08322242	3.23E-05	4.80282386	2.69E-06	5.40E-06	3.19596218
SPERMATOGENESIS	0.07049199	-0.0017604	4.80195319	2.70E-06	5.40E-06	3.19212245
BILE_ACID_METABOLISM	-0.0802853	0.00543095	-4.5548726	8.17E-06	1.57E-05	2.12609756
IL6_JAK_STAT3_SIGNALING	0.13524161	0.0026333	4.37084088	1.81E-05	3.35E-05	1.36316316
COMPLEMENT	0.11520645	0.00507262	4.26182781	2.87E-05	5.12E-05	0.92397897
ALLOGRAFT_REJECTION	0.13121237	0.00329676	3.84941746	0.00015017	0.00025891	-0.64966
CHOLESTEROL_HOMEOSTASIS	0.09831607	-0.0040412	3.54883425	0.00046148	0.00076914	-1.7067581
INFLAMMATORY_RESPONSE	0.10111057	0.00590991	3.36890676	0.00087296	0.00137376	-2.3023258
NOTCH_SIGNALING	-0.0843372	0.00600555	-3.3668512	0.0008792	0.00137376	-2.3089667
XENOBIOTIC_METABOLISM	0.06042633	0.00276771	3.34769422	0.00093947	0.00142343	-2.3706785
EPITHELIAL_MESENCHYMAL_TRANSITION	0.1214046	0.00095902	3.19789579	0.00156152	0.00229636	-2.8420887
PEROXISOME	0.06462652	-0.00096	3.12804665	0.00196663	0.00280947	-3.0551028
KRAS_SIGNALING_DN	-0.0370435	0.00315107	-2.9773046	0.00319137	0.00443246	-3.4999392
WNT_BETA_CATENIN_SIGNALING	-0.0599334	0.00279638	-2.8038671	0.00544264	0.00735491	-3.9863665
IL2_STAT5_SIGNALING	0.049473	0.00298012	2.17498421	0.03056194	0.04021308	-5.5175639
P53_PATHWAY	0.0384629	-0.0009502	2.12658799	0.03442681	0.04413693	-5.6200318
PANCREAS_BETA_CELLS	0.04134868	-0.0019837	1.88773119	0.0602116	0.0752645	-6.0930626
TGF_BETA_SIGNALING	-0.0567822	-0.0003828	-1.8110654	0.07132201	0.08697806	-6.2332982
ANGIOGENESIS	0.05254435	0.00296081	1.57357599	0.11684075	0.13909613	-6.6316631
COAGULATION	0.02866824	0.00410528	1.45452451	0.14704597	0.17098368	-6.8107335
HEDGEHOG_SIGNALING	-0.0287901	0.00047397	-1.184954	0.23715247	0.26949144	-7.1649164
HEME_METABOLISM	0.01237505	0.00255379	0.86834661	0.38603123	0.42892359	-7.4893903
KRAS_SIGNALING_UP	0.01868133	0.00612333	0.81331536	0.41680542	0.45304936	-7.5356489
ESTROGEN_RESPONSE_EARLY	-0.0147261	0.00113379	-0.7953492	0.42715929	0.45442478	-7.550099
TNFA_SIGNALING_VIA_NFKB	0.0104004	-0.0028786	0.27954801	0.78005372	0.81255596	-7.8276235
APICAL_SURFACE	0.00447475	0.00846065	0.19531419	0.84530445	0.86255556	-7.8476691
APICAL_JUNCTION	0.00213137	0.00190307	0.10581898	0.91581021	0.91581021	-7.8611768

Supplementary Table 6 The correlation between the IC50 of various drugs and PCDI

	CHEK2	KRT18	GAPDH	MMP1	CHRNA5	TMPRSS4	ITGB4	CD79A	CTLA4	RRM2	PCDI
Camptothecin_1003	-0.0277197	0.21147061	0.03807721	-0.0599118	-0.0078515	0.07258063	0.16814124	-0.3263178	-0.4105553	-0.016624	0.24060552
Cisplatin_1005	-0.3014577	0.13877372	-0.1137259	-0.2116566	-0.1376721	0.12009934	0.23027804	-0.3820834	-0.4682946	-0.269967	0.12822277
Cytarabine_1006	-0.1228067	0.10009897	0.00613326	-0.057495	-0.1727008	0.06298496	0.18530429	-0.2381881	-0.3043414	-0.0378578	0.17869708
Docetaxel_1007	-0.3708936	-0.1575163	-0.4047335	-0.2409157	-0.3019893	0.06475126	-0.0297939	-0.129629	-0.0692159	-0.4133552	-0.2595271
Gefitinib_1010	-0.3289532	-0.1808259	-0.1973529	-0.0830007	-0.1552752	-0.0394872	-0.2689281	-0.0531831	-0.073148	-0.2159908	-0.1601608
Navitoclax_1011	-0.4257151	-0.1465191	-0.2062069	-0.0960176	-0.2226856	-0.1362883	-0.064148	-0.3846643	-0.5037999	-0.2535308	0.15576992
Vorinostat_1012	-0.2151488	0.12500688	0.10377596	0.0451534	-0.1010756	0.15473963	0.268215	-0.3295218	-0.3204994	0.01565773	0.34237699
Nilotinib_1013	-0.3748422	0.04080437	-0.1341602	-0.0286712	-0.1904229	0.06870403	0.20066015	-0.3492303	-0.4195549	-0.1444665	0.27588086
Olaparib_1017	-0.0583499	0.3022778	0.19137643	-0.040632	-0.0195933	0.19119625	0.28809323	-0.3649252	-0.3294522	0.10340985	0.37059867
Axitinib_1021	-0.4124311	-0.2053416	-0.2635549	-0.1894873	-0.1171377	-0.2675695	-0.2132381	-0.4782055	-0.5474287	-0.175795	0.22124766
AZD7762_1022	-0.2952852	0.01522821	-0.2876414	-0.2574199	-0.0681878	0.13087336	-0.0297172	-0.2677386	-0.4035883	-0.4114073	-0.1409257
SB216763_1025	0.1272441	0.21934127	0.18336618	-0.1434112	0.26705817	-0.0216762	-0.0612562	-0.5516313	-0.6256218	0.21956315	0.47240601
KU_55933_1030	0.04758155	0.16856047	-0.0114773	-0.3226634	0.16492299	-0.0319197	-0.0697398	-0.490972	-0.4588715	-0.0390492	0.18280736
Afatinib_1032	-0.3429652	-0.2830414	-0.2761091	-0.1255792	-0.04475	-0.2860722	-0.4493504	-0.0952129	-0.1055171	-0.1657597	-0.1252732
PLX-4720_1036	-0.3005547	-0.1020228	-0.2383449	-0.278177	-0.0438952	-0.1454581	-0.2371357	-0.4401521	-0.4658228	-0.1282739	0.11424827
NU7441_1038	0.14341335	0.31061004	0.19084615	-0.1973803	0.21534308	0.11879603	0.08195872	-0.4413436	-0.3608888	0.15472449	0.33455333
Doramapimod_1042	0.16636933	0.34506768	0.43789079	0.11937237	0.22479945	-0.0061706	0.22607524	-0.4529194	-0.3373685	0.46690222	0.70087288
Nutlin-3a_1047	0.25005362	0.27097474	0.30796818	-0.026692	0.10258895	0.09129576	0.08238341	-0.3084728	-0.1616701	0.42323303	0.42734069
PD173074_1049	-0.337604	-0.0159348	-0.1080423	-0.1352999	-0.1620865	-0.0441806	0.00139367	-0.4470499	-0.4501916	-0.1184216	0.24544349
ZM447439_1050	-0.3771918	-0.1798519	-0.2466623	-0.2329426	-0.052997	-0.2551585	-0.2773652	-0.4695758	-0.5535211	-0.2223149	0.13588029
RO-3306_1052	-0.1610234	0.11774988	0.00537315	-0.1282227	-0.0139345	-0.0371138	-0.0062172	-0.3802036	-0.3955929	-0.0391429	0.28103798
MK-2206_1053	-0.3212011	-0.1600476	-0.1885728	-0.0894827	-0.1220665	-0.2191229	-0.1632907	-0.4647321	-0.3192614	0.02645143	0.29819633
Palbociclib_1054	-0.1970075	-0.1642713	-0.1983832	-0.116156	-0.1318079	-0.178303	-0.1206853	-0.3537631	-0.3271859	0.04634263	0.22025061
Dactolisib_1057	-0.1698423	0.1361408	-0.1741217	-0.1143722	-0.1247409	-0.0469309	-0.0853758	-0.3138296	-0.208913	0.03556505	0.18278772
AZD8055_1059	-0.2359608	-0.096765	-0.2274847	-0.1944474	-0.0187959	-0.1038273	-0.1155196	-0.5779018	-0.6053584	-0.095145	0.3031285
Dasatinib_1079	-0.2144958	-0.1684553	-0.3462612	-0.3974917	0.07893424	-0.0665365	-0.3699857	-0.3327124	-0.4172416	-0.317197	-0.1978192
Paclitaxel_1080	-0.5865981	-0.2939534	-0.4878601	-0.2211782	-0.3300206	-0.0348475	-0.11098	-0.2245567	-0.2420883	-0.4803678	-0.1858105
Rapamycin_1084	-0.5523774	-0.287413	-0.4050557	-0.1509988	-0.2849199	-0.0835913	-0.0835924	-0.3847978	-0.380851	-0.2764471	0.10321643
Sorafenib_1085	-0.3753892	-0.0563088	-0.1256252	0.02389747	-0.2689114	-0.016138	0.12623486	-0.3191844	-0.2624195	-0.1026959	0.24606538
BL-2536_1086	0.02687951	0.26796386	0.17383359	0.06518288	-0.0854916	0.32565163	0.37086332	0.39948565	0.45562019	-0.1110485	-0.2339054
Irinotecan_1088	-0.0741568	0.19835609	0.06749791	-0.0517816	-0.0248552	0.03566093	0.17878663	-0.3692143	-0.3926381	0.03431427	0.31180042
Oxaliplatin_1089	-0.0873808	0.12536836	0.03973475	-0.0086275	0.0766268	-0.0007775	0.1724065	-0.3503792	-0.3267436	0.06302105	0.30109968
BMS-536924_1091	-0.1208741	-0.2878781	-0.3180231	-0.2703974	-0.1617891	-0.1297059	-0.3748197	-0.2382168	-0.1241596	-0.1031754	-0.1310854
GSK1904529A_1093	-0.4388571	-0.0567293	-0.12919898	0.05637147	-0.2923928	0.07866465	0.1963655	-0.2172034	-0.1790327	-0.188665	0.14296416
PF-4708671_1129	-0.3190767	-0.2441043	-0.2427395	-0.1631264	-0.0424846	-0.3073561	-0.2901456	-0.532464	-0.5808514	-0.0871819	0.25308408
PRIMA-1MET_1131	0.07838335	0.32802524	0.28609589	-0.0009399	0.29930523	0.18262504	0.12340439	-0.3947586	-0.5109173	0.22137079	0.47778522
Erlotinib_1168	0.13718414	0.21749063	0.13188175	-0.0617878	0.06969945	0.24349619	0.09172509	0.14297505	0.18009192	0.02450599	-0.0917484
Niraparib_1177	0.07140338	0.32214259	0.28671798	0.05338558	0.0721365	0.15085776	0.25082335	-0.3404969	-0.3504848	0.29151863	0.49028175
MK-1775_1179	-0.5717767	-0.3397528	-0.5238106	-0.2342884	-0.3721394	-0.0722608	-0.201241	-0.2551298	-0.397283	-0.5801197	-0.2440999
Dinaciclib_1180	-0.3549613	-0.096433	-0.1888302	-0.2037468	-0.1163941	-0.028828	-0.098145	-0.4058694	-0.3709944	-0.1739125	0.10378723
Gemcitabine_1190	-0.0636418	0.14825993	-0.0367003	-0.1463507	-0.0080621	0.05956283	-0.0740288	-0.3374989	-0.4628606	-0.1149328	0.14338973
GSK269962A_1192	-0.2580109	-0.1337514	-0.1202522	-0.1561709	-0.0216621	-0.2059719	-0.1649784	-0.5639795	-0.5149784	0.03029698	0.36765154
SB505124_1194	0.53059374	0.43695547	0.58167508	0.29573509	0.16547041	0.23191779	0.42373742	0.36483873	0.54218374	0.53380435	0.19816972
Tamoxifen_1199	-0.1206625	0.15932373	0.0234707	0.06235868	-0.1544163	0.17178167	0.30137564	-0.2178422	-0.0746031	0.01490149	0.21035645
Fulvestrant_1200	-0.3269822	0.13000195	0.02569402	-0.0210256	-0.1094127	0.10508132	0.21507545	-0.37972	-0.3970621	-0.076634	0.31118109
EPZ004777_1237	-0.3106507	0.12711819	-0.0124196	-0.0914726	-0.0739911	0.06794677	0.10449374	-0.4966123	-0.5132459	-0.0950251	0.31315418
YK-4-279_1239	-0.4559584	-0.2339708	-0.4410561	-0.2604067	-0.2730775	-0.0587928	-0.1721119	-0.3426605	-0.4075887	-0.4046008	-0.0959561
Daporinad_1248	-0.1413959	0.19708194	0.17328344	0.03326987	-0.0794574	0.05615663	0.23418284	-0.1388559	-0.0969175	-0.0020907	0.20625789
BMS-345541_1249	-0.5177258	-0.4059038	-0.5011478	-0.1617214	-0.3671412	-0.1713522	-0.2986135	-0.2389862	-0.3188027	-0.3826901	-0.1171059
Talazoparib_1259	-0.1087286	0.14497762	0.06487503	-0.0472603	-0.1449804	0.06196493	0.20673609	-0.3380487	-0.3275079	0.06095955	0.33029617
XAV939_1268	-0.1918474	0.01674988	-0.107352	-0.2033078	-0.0322733	0.09787392	-0.0906033	-0.4001275	0.04816931	-0.1430299	0.10778211
Trametinib_1372	0.36935812	-0.0174672	0.01663268	-0.1961666	-0.22031076	-0.0944165	-0.3832133	-0.06686467	0.05819882	0.20708371	-0.1358696
Dabrafenib_1373	-0.2070888	-0.0474304	-0.153856	-0.1865404	-0.1729331	-0.0381284	0.01187443	-0.4211633	-0.3531226	-0.1194903	0.14867022
Temozolomide_1375	-0.2706478	0.06356931	-0.0908165	-0.1154833	-0.1231508	-0.0786245	0.08610547	-0.4116314	-0.4137463	-0.2115924	0.1361973
AZD5438_1401	-0.2069344	0.01078886	-0.0976212	-0.2150812	-0.0894353	-0.0055218	0.02451142	-0.4162667	-0.3627673	-0.084347	0.17008525
IAP_5620_1428	-0.0961512	0.26754001	0.11545755	0.03824162	0.02780730	0.31288597	0.40505164	-0.1201279	-0.1087557	-0.065398	0.13685253
AZD2014_1441	-0.015587	-0.0904356	-0.1044965	-0.2313582	0.0121927	-0.1014063	-0.301142	-0.3736152	-0.2000355	0.13228026	0.15941876
AZD1208_1449	-0.1410731	0.23870015	0.15862625	0.02180018	-0.0941443	0.12544793	0.2396129	-0.3849627	-0.3757237	0.05454507	0.40379169
AZD1332_1463	-0.1601289	-0.0928128	-0.1372288	-0.288812	0.03586774	-0.1200603	-0.2953631	-0.40291	-0.39671	-0.0209198	0.12859419
Ruxolitinib_1507	-0.2932896	0.03551429	-0.0963706	-0.1102966	-0.0670396	0.04770246	0.00856058	-0.3905573	-0.5987498	-0.1866739	0.20970108
Linsitinib_1510	-0.3958807	-0.2270882	-0.2022813	-0.0180784	-0.3106215	-0.084951	-0.0761454	-0.3158402	-0.2103956	-0.1044472	0.13110564

TAF1_5496_1732	-0.1000162	0.15462521	0.22243482	0.16186572	-0.2268938	0.02773541	0.37645887	-0.1359319	0.03413446	0.13938343	0.35080849
JAK_8517_1739	0.01070863	0.16190048	0.06444845	-0.21559946	0.11931502	0.05865134	-0.1253858	-0.3219625	-0.3058083	0.0609285	0.14581813
AZD4547_1786	-0.2285584	0.05935227	-0.0526386	-0.0409755	-0.2954323	0.08000339	0.24255436	-0.2669188	-0.0874726	-0.0717677	0.1585501
Zoledronate_1802	-0.2447564	0.09769494	0.00958223	-0.0441162	-0.082386	0.06816259	0.09785971	-0.4100961	-0.4497548	-0.0158908	0.35049527
Oxaliplatin_1806	0.02195937	0.21149385	0.17682132	0.05388806	0.02710091	0.06738403	0.16628365	-0.3260506	-0.2703958	0.22988837	0.38090181
Carmustine_1807	-0.3145705	0.06763343	-0.0303745	-0.0008047	-0.190296	0.11550581	0.15596117	-0.2644103	-0.3533693	-0.1427949	0.17926225
Topotecan_1808	-0.0187625	0.2248393	0.08072274	-0.0307688	0.04259046	0.0832327	0.16440652	-0.3441662	-0.4799709	0.01348155	0.28545711
Teniposide_1809	-0.1093864	0.15113512	-0.0407801	-0.0954119	-0.0262152	0.11031333	0.13049086	-0.4225848	-0.5524853	-0.1078454	0.23862044
Mitoxantrone_1810	0.23223636	0.42326677	0.27463525	0.03582853	0.15306198	0.23475719	0.26463574	-0.2656711	-0.3223069	0.21854716	0.3440166
Dactinomycin_1811	-0.113034	0.05491626	-0.0853975	-0.0735445	-0.048769	0.04735458	0.00262288	-0.2357633	-0.3155931	-0.0304751	0.1172423
Fludarabine_1813	-0.0648572	0.16869225	-0.0537378	-0.2113234	0.10977897	0.11114636	0.02811607	-0.3911301	-0.5715646	-0.0571196	0.20277515
Nelarabine_1814	-0.1881396	0.15238827	0.05413296	-0.0810922	-0.0319125	0.08307957	0.0667574	-0.3856965	-0.4897917	-0.066936	0.26549064
Fulvestrant_1816	-0.05091264	-0.1787651	-0.2318575	0.01691778	-0.3580782	-0.0140457	0.09779733	-0.274222	-0.3199798	-0.2770848	0.09674767
Docetaxel_1819	-0.3727593	-0.1992663	-0.3946443	-0.2619882	-0.252197	0.07493687	-0.1092043	-0.2655111	-0.2324171	-0.4035652	-0.2006404
Dihydoroterenone_182	-0.3295266	-0.1049405	-0.0274829	0.11981172	-0.358633	-0.0809313	0.23524192	-0.1130666	0.03589766	-0.0515694	0.17277058
Gallibiscoquinazole_1	-0.4895026	-0.1111952	-0.2307576	-0.0762523	-0.299572	-0.0345167	0.0709026	-0.35940926	-0.4245243	-0.3067887	0.13830101
Elephantin_1835	-0.0905699	0.19845092	0.19212407	0.0232257	0.16510568	0.14726844	0.11714022	-0.3480886	-0.3301177	0.14265423	0.37496611
Sinularin_1838	-0.26438	0.03805758	0.10311372	0.12872996	-0.105918	0.02535527	0.0838366	-0.1521811	-0.170156	0.04619639	0.27736149
Sabutoclax_1849	-0.2150843	0.17833773	0.05534815	0.04546928	-0.0457239	0.17874339	0.23055983	-0.3421915	-0.3488243	-0.0167976	0.30898012
LY2109761_1852	-0.1303236	0.15987145	0.09205695	-0.029635	0.0503716	0.0125987	0.07329922	-0.3601542	-0.3898774	0.03253172	0.32721192
OF-1_1853	-0.1038562	0.15619797	0.22245749	0.18633178	-0.2210082	0.06963265	0.43403566	-0.1099522	0.04209485	0.16471099	0.37536142
MN-64_1854	-0.3540218	-0.0007157	-0.1125968	-0.1141623	-0.0786537	0.04106496	-0.0537685	-0.2951629	-0.3871353	-0.1794585	0.13209998
KRAS (G12C) Inhibitor	-0.3921341	-0.0476327	-0.0746157	0.00891529	-0.229198	-0.0202181	0.14579133	-0.2741592	-0.2581254	-0.1024708	0.22505463
Venetoclax_1909	-0.1463323	0.23272709	0.07811638	-0.0908839	-0.037257	0.12836886	0.26244857	-0.4477299	-0.4148352	-0.0144763	0.35444277
ABT737_1910	-0.1046448	0.27900187	0.17821029	-0.0044434	0.01003696	0.15550475	0.25810578	-0.3335226	-0.3710959	-0.0015562	0.32002001
Dactinomycin_1911	-0.0047479	0.15798101	0.04957316	-0.0505247	0.08888228	0.15063101	0.11284346	-0.1743181	-0.0669797	0.07702809	0.12986414
Afuresertib_1912	-0.2954228	-0.0657279	-0.118413	-0.093794	-0.0939464	-0.2084502	-0.1009493	-0.3578599	-0.192318	0.0509424	0.25189532
AGI-5198_1913	-0.1939331	0.21054485	0.02338724	-0.0443822	-0.0807156	0.16245009	0.28062164	-0.3870318	-0.3740703	-0.0637075	0.2924694
AZD5363_1916	-0.4131431	-0.2015161	-0.3068913	-0.2015806	-0.1452874	-0.219226	-0.2163318	-0.4034378	-0.3107998	-0.1253622	0.11793163
AZD6738_1917	-0.4835799	-0.2831137	-0.5067418	-0.3091126	-0.3247276	-0.0627217	-0.2029248	-0.2569479	-0.3983306	-0.5159192	-0.2349452
AZD8186_1918	-0.122481	-0.105849	-0.2009776	-0.2467904	0.09788827	-0.1983322	-0.3590327	-0.437167	-0.4002473	-0.0030543	0.14831213
Osimertinib_1919	-0.4461068	-0.3757618	-0.3538791	-0.1226982	-0.1914873	-0.2380922	-0.3955924	-0.1436178	-0.2023087	-0.2449139	-0.0989127
Ipatasertib_1924	-0.4772454	-0.2564592	-0.3328474	-0.1468562	-0.2130676	-0.289721	-0.210748	-0.3464276	-0.2669697	-0.1496433	0.10934959
GNE-317_1926	-0.1015389	-0.1450002	-0.1432881	-0.1581862	-0.059358	-0.145334	-0.1825915	-0.4326091	-0.2416558	0.12300103	0.23637668
GSK2578215A_1927	-0.4424645	0.05003009	-0.1304864	-0.0679639	-0.2049693	0.14304293	0.25083626	-0.422361	-0.4541744	-0.2201869	0.24679261
I-BRD9_1928	-0.3972668	0.0859848	0.2346467	-0.1028387	-0.1894624	-0.0999901	-0.0321377	-0.440372	-0.4584602	-0.1560569	0.23525456
MIRA-1_1931	-0.4076419	0.03840341	-0.0542266	-0.036135	0.1689547	0.08489503	0.1649025	0.4348361	-0.487401	-0.1525971	0.28479529
NVP-ADW742_1932	-0.2449702	-0.1737265	-0.2259945	-0.1424641	-0.2340641	-0.1062967	-0.1659484	-0.3481325	-0.2019219	-0.0595204	0.10253227
P22077_1933	-0.5293775	-0.1171051	-0.2314114	0.02058112	-0.2919125	0.06611555	0.19059591	-0.2669502	-0.3213646	-0.2880112	0.15350506
Savolitinib_1936	-0.1225208	0.07672051	-0.1750437	-0.1809415	-0.1538578	0.1950356	0.12273771	-0.1403369	-0.2178893	-0.3001705	-0.1058341
UMI-77_1939	-0.3892387	0.00379134	-0.1343877	-0.1130936	-0.1632633	0.23273045	0.18137652	-0.160289	0.1909129	-0.3899024	-0.1167299
WIKI4_1940	-0.4269364	-0.2746204	-0.3661981	-0.207301	-0.1746506	0.06062771	-0.2593204	-0.1851951	-0.35537	-0.4466158	-0.2337981
Sepantronium bromic	-0.2542127	-0.0917521	-0.1119212	0.04414079	-0.0607132	0.22704765	0.14674944	0.10920143	0.102028534	-0.2947576	-0.2037709
BIBR-1532_2043	-0.1369043	0.30123809	0.20618896	0.05154205	0.0325469	0.22601567	0.33669148	-0.3080938	-0.2430575	0.09918364	0.37762927
Pyridostatin_2044	-0.3935225	0.0762573	-0.0840074	-0.0640067	-0.15797	0.07272089	0.13480458	-0.3203417	-0.2982233	-0.1368864	0.19646755
AMG-319_2045	-0.1926582	0.23173136	0.00144634	-0.1209715	0.09538418	0.09365166	0.11041949	-0.5104454	-0.623113	-0.0829403	0.32082896
VX-11e_2096	-0.065264	-0.2580529	-0.3163684	-0.3045153	-0.0993801	-0.1438072	-0.4000393	-0.1804007	-0.0914727	-0.1313399	
Uprosertib_2106	-0.4323998	-0.1941407	-0.2765995	-0.1223893	-0.15645059	-0.2081842	-0.1597125	-0.3693683	-0.2508607	-0.0771707	0.18428234
LJ308_2107	-0.2248029	0.079793	0.02730527	-0.1093194	-0.0108698	0.1732744	0.15445961	-0.4745482	-0.5051213	-0.0678281	0.33277947
AZ6102_2109	-0.1439468	-0.0463563	-0.0567297	-0.167269	-0.0791151	-0.0706682	-0.1617213	-0.3958934	-0.2830359	0.07165393	0.22230006
GSK591_2110	-0.1047585	0.23308729	0.11584498	0.0453997	-0.057185	0.19242625	0.3639323	-0.3027011	-0.2882613	0.08409599	0.36482792
AZD6482_2169	0.1335602	0.31973069	0.2051529	-0.0350309	0.28808983	-0.047246	0.06377273	-0.4988251	-0.4600697	0.23838077	0.49887883
AT13148_2170	-0.4732921	-0.0847364	-0.2506972	-0.1472667	-0.2184197	0.04912345	0.1059927	-0.3369491	-0.2952198	-0.2115445	0.15234922
BMS-754807_2171	-0.0735246	0.0045091	0.00690945	-0.0992627	0.05972144	-0.1594055	-0.1047412	-0.5460462	-0.5420622	0.15045193	0.44601174
JQ1_2172	-0.1416749	0.08475792	0.05159152	-0.0927692	0.02799339	-0.0790296	0.003761717	-0.5264319	-0.6052987	0.03267593	0.41362064

The significance between the IC50 of various drugs and PCDI

CHEK2	1.2838E-06	0.38838555	0.17461243	0.85892083	0.09991109	0.00012618	3.0483E-14	2.3251E-22	0.70664348	4.8209E-08
Cisplatin_1005	2.7933E-12	0.00159449	0.00982727	1.256E-06	0.00173851	0.00635752	1.2617E-07	2.4003E-19	1.9743E-29	4.7351E-10
Cytarabine_1006	0.000525899	0.02309885	0.88953205	0.19268493	8.1713E-05	0.15349332	2.3192E-05	4.4713E-08	1.69E-12	0.39125123
Docetaxel_1007	3.0653E-18	0.00033277	0	3.0988E-08	0.25473E-12	0.14226463	0.49990631	0.00320827	0.11668918	1.1325E-22
Gefitinib_1010	1.8415E-14</									

Gemcitabine_1190	0.14924186	0.00073803	0.4057808	0.00086501	0.85517803	0.17714123	0.09330767	3.4729E-15	1.0472E-28	0.00903946	0.00127588
GSK269962A_1192	2.8179E-09	0.00235321	0.00631782	0.00037466	0.62381227	2.4347E-06	0.00016947	1.4041E-44	3.1955E-36	0.49269129	1.6384E-17
SB505124_1194	9.7418E-39	2.0006E-25	0	7.4487E-12	0.00016192	1.0207E-07	7.4081E-24	1.1678E-17	1.0833E-40	2.8506E-39	7.6973E-06
Tamoxifen_1199	0.00611335	0.00028336	0.59501553	0.15763205	0.00043668	8.9273E-05	2.8333E-12	5.9855E-07	0.09078776	0.73584135	1.9878E-06
Fulvestrant_1200	2.6858E-14	0.00312065	0.56060065	0.63404565	0.01297709	0.01705649	8.3608E-07	4.1446E-19	6.779E-21	0.08231102	9.8499E-13
EPZ004777_1237	5.5199E-13	0.00385866	0.77850655	0.03797253	0.09347494	0.12356254	0.0176885	2.0029E-33	5.9666E-36	0.03107555	6.9599E-13
YK-4-279_1239	8.3547E-28	7.8096E-08	0	1.9852E-09	2.9339E-10	0.18281709	8.6425E-05	1.2362E-15	4.9458E-22	1.0497E-21	0.0315921
Daporinad_1248	0.00129464	6.6092E-06	7.9136E-05	0.45121711	0.07160164	0.20326459	7.5955E-08	0.0015842	0.0278607	0.96224989	3.1627E-06
BMS-345541_1249	1.1784E-36	7.5675E-22	0	0.00023783	6.6341E-18	9.3028E-05	6.183E-12	4.0186E-08	1.2492E-13	2.0847E-19	0.00863186
Talazoparib_1259	0.01357575	0.00096851	0.14146376	0.28439507	0.00096828	0.16027695	2.2298E-06	3.1139E-15	2.4293E-14	0.16718188	3.0501E-14
XAV939_1268	1.1656E-05	0.70452582	0.01483071	3.2994E-06	0.46489633	0.02634755	0.03984411	3.1935E-21	2.8328E-31	0.00113501	0.01569559
Trametinib_1372	4.3147E-18	6.69250344	0.70640438	7.3066E-06	4.4257E-07	0.03217484	1.8457E-19	0.12966863	0.18728613	2.1422E-06	0.0022825
Dabrafenib_1373	2.1409E-06	0.28266294	0.000465	2.0402E-05	7.99E-05	0.38778274	0.78806182	1.4696E-23	1.4349E-16	0.00663136	0.0008339
Temozolomide_1375	4.2664E-10	0.14970648	0.03940797	0.00871219	0.00513239	0.07463535	0.05082858	1.7649E-22	1.0237E-22	1.2655E-06	0.00222668
AZD5438_1401	2.1794E-06	0.80703694	0.02677465	8.355E-07	0.04248426	0.90051882	0.57890527	5.322E-23	1.8334E-17	0.05576117	0.0012853
IAP_5620_1428	0.0291249	6.8501E-10	0.00875792	0.38646361	0.94981272	3.6894E-13	9.3749E-22	0.00559591	0.01353431	0.13831447	0.00211879
AZD2014_1441	0.72417228	0.04021545	0.01772064	1.0974E-07	0.78252173	0.02135671	2.9503E-12	1.6648E-18	4.7664E-06	0.00263103	0.00033593
AZD1208_1449	0.00132852	4.1755E-08	0.00030653	0.6216019	0.03267702	0.00435518	3.6946E-08	1.2264E-19	1.0333E-18	0.21655636	4.1392E-21
AZD1332_1463	0.00026363	0.03523158	0.00181488	2.3706E-11	0.41664694	0.00637475	7.9331E-12	1.6016E-21	0.3875E-21	0.63575388	0.00390163
Ruxolitinib_1507	1.1252E-11	0.42125668	0.02879272	0.01225931	0.12866602	0.27990813	0.84633102	3.2632E-20	2.0589E-51	0.20121E-05	4.5598E-06
Linsitinib_1510	9.0416E-21	1.8972E-07	3.8861E-06	0.68231937	5.5489E-13	0.0540241	0.08428954	2.1549E-13	1.4569E-06	0.01773942	0.00325198
Epirubicin_1511	0.47533808	4.7855E-08	0.00057486	0.17205476	0.06044981	0.0001816	0.00091101	1.4675E-13	2.1368E-13	0.01021874	1.6197E-11
Cyclophosphamide_1	0.6209E-11	0.00042817	0.58656545	0.26150112	0.04774495	0.00415704	1.4937E-07	3.3251E-21	1.3119E-20	0.12748481	1.3261E-12
Sapitinib_1549	0.00731226	4.1335E-06	0.0039891	0.14068329	0.07178163	0.92337E-06	6.8437E-27	0.501112892	0.01937989	0.55610024	1.0063E-05
Uprosertib_1553	1.0548E-05	0.136365	0.01557852	0.10869043	0.73028405	8.2315E-05	1.0777E-06	1.2674E-15	7.7297E-07	0.00566791	8.8256E-10
Lapatinib_1558	5.4389E-35	2.1686E-16	0	0.00367222	1.00831229	0.003242434	1.0683E-07	0.00066118	0.00348104	1.0014E-15	9.5745E-05
EPZ5676_1563	2.1822E-08	3.3052E-05	0.76758723	0.28069023	0.05950645	0.00075972	6.7235E-05	5.4535E-19	4.1234E-26	0.00871399	3.0276E-09
SCH772984_1564	1.755E-10	0.72551487	0.48463161	1.1906E-05	0.00683888	0.28829851	4.859E-12	0.01179683	0.03384175	0.03245019	6.9026E-07
IWP-2_1576	2.1334E-20	0.47900517	5.4503E-06	0.00587974	5.9208E-06	0.19357055	0.49118236	3.4175E-22	8.1094E-38	9.0123E-10	0.004836
Leflunomide_1578	7.62E-07	0.30187936	0.96408567	0.73924745	0.33478535	0.46451165	0.04322469	5.1363E-18	3.6777E-19	0.90743093	6.6162E-12
Entinostat_1593	0.18347043	4.6756E-11	0.1149201	0.0326473	0.80187762	1.0238E-08	2.2488E-10	3.2752E-14	1.3219E-21	0.14274461	2.8053E-06
LGK974_1598	1.4006E-16	0.01573202	0.00135343	0.60984127	1.4543E-11	0.03151815	0.03691096	2.8902E-14	5.7727E-10	8.1924E-05	0.00046812
WZ4003_1614	0.07365228	0.35974889	0.08019108	3.0656E-07	0.02422346	0.6739573	0.01035435	6.1569E-39	1.8515E-33	0.10940662	4.3944E-10
CZC24832_1615	2.1536E-09	0.04997484	0.01393909	4.5106E-06	0.48696726	0.37946062	0.75042716	1.2217E-42	2.3080E-62	0.00117162	7.6739E-11
GSK2606414_1618	5.1217E-10	0.00076732	5.3748E-09	2.9203E-07	0.11004354	0.0022987	3.2815E-09	9.6553E-22	1.2211E-28	0.00195266	0.0092544
PFI-1620_1620	3.7522E-11	0.00209424	0.28489875	0.00153788	0.94292363	0.00486145	0.02583315	6.7518E-30	3.2454E-46	0.00051461	9.9716E-10
PCI-C34051_1621	0.3168764	5.1669E-11	9.0789E-09	0.36778891	0.10831493	3.5732E-06	1.3007E-07	1.1021E-29	1.2782E-27	0.00014519	1.1543E-31
Wnt-C59_1622	6.2314E-26	0.01179742	0.0005071	0.95071847	2.3509E-08	0.63669651	0.03285072	4.1636E-21	7.8236E-22	0.00074669	1.6364E-09
I-BET-762_1624	0.34331695	6.3335E-07	0.13256425	9.1743E-06	0.00683309	1.2E-07	0.25414029	1.3582E-16	2.9126E-17	0.96196536	0.00042639
RVX-208_1625	4.3919E-09	0.09057586	7.6696E-06	5.7312E-08	0.01644241	0.00356644	5.8153E-07	3.0423E-40	1.0391E-07	0.00353555	
OTX015_1626	0.00537366	3.1047E-07	0.42797038	0.00016303	1.4424E-05	9.8852E-12	0.82590986	5.2023E-08	1.7213E-06	0.0229762	0.01368635
GSK343_1627	0.00116759	2.6255E-08	0.08316857	0.01809039	0.20709567	0.00040967	0.00295802	4.9239E-32	2.1956E-42	0.88792336	3.2889E-17
ML323_1629	7.786E-39	1.0063E-08	5.3753E-12	0.78909741	3.9453E-23	0.01449884	0.04322914	1.255E-20	3.6685E-08	5.5826E-10	0.02225273
PTR062607_1631	0.0121264	0.95080008	0.112339	5.6423E-05	0.06421355	0.02526491	1.7819E-06	8.1174E-44	7.8825E-47	0.14355939	3.7547E-12
Ribociclib_1632	6.4945E-07	0.00265265	1.7348E-05	4.25459E-05	0.88344254	1.0009E-07	3.1744E-05	1.1012E-55	9.3799E-74	0.19539448	1.6071E-14
AGI-6780_1634	6.7527E-08	0.00012045	0.2013036	0.74886962	0.0148706	0.00545217	3.4027E-12	5.3107E-16	7.4291E-13	0.29920479	3.1971E-13
Picolinici-acid_1635	0.00293518	1.6964E-06	0.17418304	0.03929699	0.53716194	0.00912302	0.00012838	3.0342E-08	4.7615E-33	0.83808729	8.3985E-16
AZD5153_1706	0.13277871	2.5925E-05	0.02117918	0.15160817	0.01384743	2.8651E-08	0.19277E-14	1.9277E-14	4.897E-09	0.00012367	1.6491E-09
CDK9_5576_1708	6.4949E-06	0.32060927	0.19775574	0.00011326	0.02440009	0.22460769	0.24807492	7.3556E-19	4.9375E-13	0.75348059	2.5927E-06
CDK9_5038_1709	2.6513E-08	0.51848114	0.98199425	0.00369557	0.09840624	4.6996997	0.29230931	1.2626E-22	1.1073E-11	0.64347991	3.0237E-08
ERK_2440_1713	2.4141E-15	0.01076075	0.2352385	3.4405E-07	0.02086E-14	0.57007628	2.6761E-11	1.0226E-07	4.6339E-14	0.20799E-09	0.00045994
ERK_6604_1714	4.9352E-10	0.43985051	1.7058242	1.5146E-09	0.00807856	8.0119269	6.1095E-11	0.15008949	0.31283661	0.10852645	4.5402E-08
IRAK4_4710_1716	0.00398061	0.00041451	0.13363673	0.68113007	0.00883746	0.00351503	1.4735E-06	1.6407E-04	10.4547E-07	0.88123777	1.0138E-07
JAK1_8709_1718	0.36717885	0.00043539	2.6116E-05	0.43123824	0.65338115	0.01422825	0.00159314	1.1279E-16	1.5553E-09	5.5004E-11	3.1927E-24
AZD5991_1720	7.0093E-12	0.00086666	0.68247557	0.15105437	0.00048628	1.414E-05	3.094E-13	1.1668E-10	2.7647E-08	0.09720077	2.9168E-11
PAK_5339_1730	3.0161E-20	0.0062873	5.8121E-06	0.00538231	3.63575E-05	0.69283735	0.05887023	3.1477E-30	1.1171E-24	0.00052494	0.00013016
TAF1_5496_1732	0.02321311	0.00042882	3.6559E-07	0.00022536	1.9446E-07	0.52999879	8.7429E-19	0.00199047	0.4395359	0.00151958	5.5317E-16
JAK_8517_1739	0.80843492	0.00022465	0.14410343	7.4858E-07	0.00671213	0.18387411	0.00437473	6.9365E-14	1.3061E-12	0.16739867	0.00105105
AZD4547_1786	1.5732E-07	0.17868004	0.23298631	0.35340065	7.8407E-12	0.0459191	2.4822E-08	7.5247E-10	0.0472502	0.10377785	

Sepantronium bromic	4.9382E-09	0.0373864	0.01106374	0.31742316	0.16890738	1.907E-07	0.00083689	0.01330644	0.02049762	8.7881E-12	4.1734E-06
BIBR-1532_2043	0.00184583	2.9016E-12	2.5008E-06	0.2429644	0.46111779	2.1732E-07	4.0749E-15	8.7151E-13	2.3177E-08	0.02439071	1.8429E-18
Pyridostatin_2044	1.6011E-20	0.08383297	0.05677703	0.14691885	0.00031966	0.09925571	0.00217107	9.3878E-14	4.8756E-12	0.00184841	9.2397E-06
AMG-319_2045	1.0686E-05	1.0456E-07	0.97387122	0.00598302	0.03044222	0.03360316	0.01216232	1.6248E-35	1.0079E-56	0.05998792	1.7586E-13
VX-11e_2096	0.13912558	2.8008E-09	2.6077E-13	1.6393E-12	0.02410824	0.00106563	3.2637E-21	3.8931E-05	2.6525E-05	0.03797237	0.0031967
Uprosertib_2106	7.0727E-25	9.1079E-06	2.0248E-10	0.00541635	0.00036556	1.8952E-06	0.00027367	4.3049E-18	7.8501E-09	0.08018117	3.2636E-05
LJ308_2107	2.5319E-07	3.9927E-05	0.53627677	0.01305493	0.80561769	7.7305E-05	0.00043504	2.7877E-30	1.0638E-34	0.12422125	1.9003E-14
AZ6102_2109	0.0010536	0.29371754	0.19861473	0.00011941	0.07283613	0.10919464	0.00022834	9.0137E-21	6.0809E-11	0.10432811	4.8695E-07
GSK591_2110	0.01740124	8.7657E-08	0.00853337	0.3038041	0.19509893	1.096E-05	1.4232E-17	2.2507E-12	6.2545E-11	0.05649678	2.9992E-17
AZD6482_2169	0.00238774	1.0517E-13	2.8131E-06	0.42760976	2.6661E-11	0.28454098	0.14840498	9.4101E-34	2.4389E-28	4.3577E-08	6.0116E-33
AT13148_2170	4.144E-30	0.05463588	9.0452E-09	0.00080176	5.579E-07	0.26581515	0.01611528	3.8725E-15	8.1278E-12	1.2727E-06	0.00061493
BMS-754807_2171	0.09556608	0.91869341	0.87565887	0.02427675	0.17598853	0.00028129	0.01745142	2.3255E-41	1.1366E-40	0.00061363	6.5701E-26
JQ1_2172	0.001266	0.05457436	0.24242259	0.0353181	0.52617769	0.07314683	0.93213332	4.6992E-38	8.5352E-53	0.45934211	3.626E-22