

Table S1 24 neutrophil extracellular traps formation-related genes enrolled in this study

AZU1

BPI

CAMP

CAT

CEACAM1

CTSC

CTSG

CXCL8

ENO1

GSDMD

HMGB1

LCT

LTF

LYZ

MMP9

MNDA

MPO

S100A12

S100A8

S100A9

TKT

TLR2

TLR4

TNF

Table S2 The clinical information of LUAD in TCGA-LUAD, GSE72094 and CHCAMS cohorts

Characteristic	TCGA-LUAD (n=486)	GSE72094 (n=393)	CHCAMS (n=55)	P
Age, year				<0.001
≤65	227 (46.71%)	117 (29.77%)	35 (63.64%)	
>65	240 (49.38%)	276 (70.23%)	20 (36.36%)	
Unknown	19 (3.91%)	0 (0%)	0 (0%)	
Gender				0.68
Female	264 (54.32%)	219 (55.73%)	37 (67.27%)	
Male	222 (45.68%)	174 (44.27%)	18 (32.73%)	
Stage				0.13
Stage I	262 (53.91%)	254 (64.63%)		
Stage II	112 (23.05%)	67 (17.05%)		
Stage III	79 (16.26%)	57 (14.50%)		
Stage IV	25 (5.14%)	15 (3.82%)		
Unknown	8 (1.65%)	0 (0%)		
T stage				N/A
T1	163 (33.54%)		39 (70.91%)	
T2	260 (53.5%)		12 (21.82%)	
T3	41 (8.44%)		3 (5.45%)	
T4	19 (3.91%)		1 (1.82%)	
Unknown	3 (0.62%)			
N stage				N/A
N0	312 (64.20%)		46 (83.64%)	
N1	90 (18.52%)		1 (1.82%)	
N2	70 (14.40%)		8 (14.55%)	
N3	2 (0.41%)			
Unknown	12 (2.47%)			
M stage				N/A
M0	333 (68.52%)		46 (83.64%)	
M1	24 (4.94%)		9 (16.36%)	
Unknown	129 (26.54%)			
Differentiation				N/A
High/Medium			28 (50.91%)	
Low			21 (38.18%)	
Unknown			6 (10.91%)	

Data are presented as n (%). P values were calculated by Pearson Chi-squared test between TCGA-LUAD cohort and GSE72094 cohort. LUAD, lung adenocarcinoma; TCGA, The Cancer Genome Atlas; N/A, not applicable; CHCAMS, Cancer Hospital of the Chinese Academy of Medical Sciences.

Table S3 Quantitative RT-PCR primers for this study

Gene symbol	Forward primer	Reverse primer
<i>CAT</i>	GAAGTGTCCCTACCGTGCTCGA	CCAGAATATTGGATGCTGTGCTCCAGG
<i>CTSG</i>	ATCTTCAGATCCAGAGTCCAGCAG	AGCAGTTTGAAGCTTCTCATTGTTGTCC
<i>ENO1</i>	TGGTGTCTATCGAAGATCCCTT	CCTTGGCGATCCTCTTTGG
<i>TLR2</i>	GCTGCTCGGCGTTCTCTC	AAGCAGTGAAAGAGCAATGGG
<i>GAPDH</i>	TTGGCCAGGGGTGCTAAG	AGCCAAAAGGGTCATCATCTO

RT-PCR, reverse transcription-polymerase chain reaction.

Table S4 The signatures of ten oncogenic pathways

Symbol	Pathway
CCND1	Cell.Cycle_activated
CCND2	Cell.Cycle_activated
CCND3	Cell.Cycle_activated
CCNE1	Cell.Cycle_activated
CDK2	Cell.Cycle_activated
CDK4	Cell.Cycle_activated
CDK6	Cell.Cycle_activated
E2F1	Cell.Cycle_activated
E2F3	Cell.Cycle_activated
YAP1	Hippo_activated
TEAD1	Hippo_activated
TEAD2	Hippo_activated
TEAD3	Hippo_activated
TEAD4	Hippo_activated
WWTR1	Hippo_activated
MYC	MYC_activated
MYCL1	MYC_activated
MYCN	MYC_activated
CREBBP	NOTCH_activated
EP300	NOTCH_activated
HES1	NOTCH_activated
HES2	NOTCH_activated
HES3	NOTCH_activated
HES4	NOTCH_activated
HES5	NOTCH_activated
HEY1	NOTCH_activated
HEY2	NOTCH_activated
HEYL	NOTCH_activated
KAT2B	NOTCH_activated
NOTCH1	NOTCH_activated
NOTCH2	NOTCH_activated
NOTCH3	NOTCH_activated
NOTCH4	NOTCH_activated
PSEN2	NOTCH_activated
LFNG	NOTCH_activated

*Table S4 (continued)***Table S4** (*continued*)

Symbol	Pathway
NCSTN	NOTCH_activated
JAG1	NOTCH_activated
APH1A	NOTCH_activated
FHL1	NOTCH_activated
THBS2	NOTCH_activated
MFAP2	NOTCH_activated
RFNG	NOTCH_activated
MFAP5	NOTCH_activated
JAG2	NOTCH_activated
MAML3	NOTCH_activated
MFNG	NOTCH_activated
CNTN1	NOTCH_activated
MAML1	NOTCH_activated
MAML2	NOTCH_activated
PSEN1	NOTCH_activated
PSENEN	NOTCH_activated
RBPJ	NOTCH_activated
RBPJL	NOTCH_activated
SNW1	NOTCH_activated
ADAM10	NOTCH_activated
APH1B	NOTCH_activated
ADAM17	NOTCH_activated
DLK1	NOTCH_activated
DLL1	NOTCH_activated
DLL3	NOTCH_activated
DLL4	NOTCH_activated
DNER	NOTCH_activated
DTX1	NOTCH_activated
DTX2	NOTCH_activated
DTX3	NOTCH_activated
DTX3L	NOTCH_activated
DTX4	NOTCH_activated
EGFL7	NOTCH_activated
NFE2L2	NRF2_activated

Table S4 (continued)

Table S4 (continued)

Symbol	Pathway
EIF4EBP1	PI3K_activated
AKT1	PI3K_activated
AKT2	PI3K_activated
AKT3	PI3K_activated
AKT1S1	PI3K_activated
INPP4B	PI3K_activated
MAPKAP1	PI3K_activated
MLST8	PI3K_activated
MTOR	PI3K_activated
PDK1	PI3K_activated
PIK3CA	PI3K_activated
PIK3CB	PI3K_activated
PIK3R2	PI3K_activated
RHEB	PI3K_activated
RICTOR	PI3K_activated
RPTOR	PI3K_activated
RPS6	PI3K_activated
RPS6KB1	PI3K_activated
STK11	PI3K_activated
TGFBR1	TGF-B_activated
TGFBR2	TGF-B_activated
ACVR2A	TGF-B_activated
ACVR1B	TGF-B_activated
SMAD2	TGF-B_activated
SMAD3	TGF-B_activated
SMAD4	TGF-B_activated
TP53	TP53_activated
ATM	TP53_activated
CHEK2	TP53_activated
RPS6KA3	TP53_activated
LEF1	Wnt_activated
LGR4	Wnt_activated
LGR5	Wnt_activated
LZTR1	Wnt_activated

Table S4 (continued)

Table S4 (continued)

Symbol	Pathway
NDP	Wnt_activated
PORCN	Wnt_activated
SFRP1	Wnt_activated
SFRP2	Wnt_activated
SFRP4	Wnt_activated
SFRP5	Wnt_activated
SOST	Wnt_activated
TCF7L1	Wnt_activated
WIF1	Wnt_activated
ZNRF3	Wnt_activated
CTNNB1	Wnt_activated
DVL1	Wnt_activated
DVL2	Wnt_activated
DVL3	Wnt_activated
FRAT1	Wnt_activated
FRAT2	Wnt_activated
DKK1	Wnt_activated
DKK2	Wnt_activated
DKK3	Wnt_activated
DKK4	Wnt_activated
RNF43	Wnt_activated
TCF7	Wnt_activated
TCF7L2	Wnt_activated
ABL1	RAS_activated
EGFR	RAS_activated
ERBB2	RAS_activated
ERBB3	RAS_activated
ERBB4	RAS_activated
PDGFRA	RAS_activated
PDGFRB	RAS_activated
MET	RAS_activated
FGFR1	RAS_activated
FGFR2	RAS_activated
FGFR3	RAS_activated

Table S4 (continued)

Table S4 (continued)

Symbol	Pathway
FGFR4	RAS_activated
FLT3	RAS_activated
ALK	RAS_activated
RET	RAS_activated
ROS1	RAS_activated
KIT	RAS_activated
IGF1R	RAS_activated
NTRK1	RAS_activated
NTRK2	RAS_activated
NTRK3	RAS_activated
SOS1	RAS_activated
GRB2	RAS_activated
PTPN11	RAS_activated
KRAS	RAS_activated
HRAS	RAS_activated
NRAS	RAS_activated
RIT1	RAS_activated
ARAF	RAS_activated
BRAF	RAS_activated
RAF1	RAS_activated
RAC1	RAS_activated
MAP2K1	RAS_activated
MAP2K2	RAS_activated
MAPK1	RAS_activated
INSR	RAS_activated
INSRR	RAS_activated
IRS1	RAS_activated
SOS2	RAS_activated
SHC1	RAS_activated
SHC2	RAS_activated
SHC3	RAS_activated
SHC4	RAS_activated
RASGRP1	RAS_activated
RASGRP2	RAS_activated

Table S4 (continued)

Table S4 (continued)

Symbol	Pathway
RASGRP3	RAS_activated
RASGRP4	RAS_activated
RAPGEF1	RAS_activated
RAPGEF2	RAS_activated
RASGRF1	RAS_activated
RASGRF2	RAS_activated
FNTA	RAS_activated
FNTB	RAS_activated
SPRED1	RAS_activated
SPRED2	RAS_activated
SPRED3	RAS_activated
SHOC2	RAS_activated
KSR1	RAS_activated
KSR2	RAS_activated
JAK2	RAS_activated
IRS2	RAS_activated
CDKN1A	Cell.Cycle_repressed
CDKN1B	Cell.Cycle_repressed
CDKN2A	Cell.Cycle_repressed
CDKN2B	Cell.Cycle_repressed
CDKN2C	Cell.Cycle_repressed
RB1	Cell.Cycle_repressed
STK4	Hippo_repressed
STK3	Hippo_repressed
SAV1	Hippo_repressed
LATS1	Hippo_repressed
LATS2	Hippo_repressed
MOB1A	Hippo_repressed
MOB1B	Hippo_repressed
PTPN14	Hippo_repressed
NF2	Hippo_repressed
WWC1	Hippo_repressed
TAOK1	Hippo_repressed
TAOK2	Hippo_repressed

Table S4 (continued)

Table S4 (continued)

Symbol	Pathway
TAOK3	Hippo_repressed
CRB1	Hippo_repressed
CRB2	Hippo_repressed
CRB3	Hippo_repressed
LLGL1	Hippo_repressed
LLGL2	Hippo_repressed
HMCN1	Hippo_repressed
SCRIB	Hippo_repressed
HIPK2	Hippo_repressed
FAT1	Hippo_repressed
FAT2	Hippo_repressed
FAT3	Hippo_repressed
FAT4	Hippo_repressed
DCHS1	Hippo_repressed
DCHS2	Hippo_repressed
CSNK1E	Hippo_repressed
CSNK1D	Hippo_repressed
AJUBA	Hippo_repressed
LIMD1	Hippo_repressed
WTIP	Hippo_repressed
MGA	MYC_repressed
MNT	MYC_repressed
MXD1	MYC_repressed
MXD3	MYC_repressed
MXD4	MYC_repressed
MXI1	MYC_repressed
ARRDC1	NOTCH_repressed
CNTN6	NOTCH_repressed
KDM5A	NOTCH_repressed
NOV	NOTCH_repressed
NRARP	NOTCH_repressed
ITCH	NOTCH_repressed
SPEN	NOTCH_repressed
FBXW7	NOTCH_repressed

Table S4 (continued)

Table S4 (continued)

Symbol	Pathway
HDAC2	NOTCH_repressed
CUL1	NOTCH_repressed
NCOR1	NOTCH_repressed
NCOR2	NOTCH_repressed
HDAC1	NOTCH_repressed
NUMB	NOTCH_repressed
CIR1	NOTCH_repressed
NUMBL	NOTCH_repressed
RBX1	NOTCH_repressed
SAP30	NOTCH_repressed
SKP1	NOTCH_repressed
CTBP1	NOTCH_repressed
CTBP2	NOTCH_repressed
KEAP1	NRF2_repressed
CUL3	NRF2_repressed
DEPDC5	PI3K_repressed
DEPTOR	PI3K_repressed
NPRL2	PI3K_repressed
NPRL3	PI3K_repressed
PIK3R1	PI3K_repressed
PIK3R3	PI3K_repressed
PPP2R1A	PI3K_repressed
PTEN	PI3K_repressed
TSC1	PI3K_repressed
TSC2	PI3K_repressed
NF1	RAS_repressed
RASA1	RAS_repressed
CBL	RAS_repressed
ERRFI1	RAS_repressed
CBLB	RAS_repressed
CBLC	RAS_repressed
RCE1	RAS_repressed
ICMT	RAS_repressed
MRAS	RAS_repressed

Table S4 (continued)

Table S4 (continued)

Symbol	Pathway
PLXNB1	RAS_repressed
MAPK3	RAS_repressed
ARHGAP35	RAS_repressed
RASA2	RAS_repressed
RASA3	RAS_repressed
RASAL1	RAS_repressed
RASAL2	RAS_repressed
RASAL3	RAS_repressed
DAB2IP	RAS_repressed
PPP1CA	RAS_repressed
SCRIB	RAS_repressed
PIN1	RAS_repressed
PEBP1	RAS_repressed
ERF	RAS_repressed
PEA15	RAS_repressed
MDM2	TP53_repressed
MDM4	TP53_repressed
CHD8	Wnt_repressed
LRP5	Wnt_repressed
LRP6	Wnt_repressed
RSPO1	Wnt_repressed
TLE1	Wnt_repressed
TLE2	Wnt_repressed
TLE3	Wnt_repressed
TLE4	Wnt_repressed
FZD1	Wnt_repressed
FZD10	Wnt_repressed
FZD2	Wnt_repressed
FZD3	Wnt_repressed
FZD4	Wnt_repressed
FZD5	Wnt_repressed
FZD6	Wnt_repressed
FZD7	Wnt_repressed
FZD8	Wnt_repressed

Table S4 (continued)

Table S4 (continued)

Symbol	Pathway
FZD9	Wnt_repressed
WNT1	Wnt_repressed
WNT10A	Wnt_repressed
WNT10B	Wnt_repressed
WNT11	Wnt_repressed
WNT16	Wnt_repressed
WNT2	Wnt_repressed
WNT3A	Wnt_repressed
WNT4	Wnt_repressed
WNT5A	Wnt_repressed
WNT5B	Wnt_repressed
WNT6	Wnt_repressed
WNT7A	Wnt_repressed
WNT7B	Wnt_repressed
WNT8A	Wnt_repressed
WNT8B	Wnt_repressed
WNT9A	Wnt_repressed
WNT9B	Wnt_repressed
AMER1	Wnt_repressed
APC	Wnt_repressed
AXIN1	Wnt_repressed
AXIN2	Wnt_repressed
GSK3B	Wnt_repressed
CHD4	Wnt_repressed