

## Supplementary Tables

**Table S1. Clinical characteristics of patient studies in TCGA cohort**

Clinical Factors	Status	Number of cases	
		TCGA cohort (n=4,231)	Study cohort (n=2210)
Age	Age≤45	425	226
	45<Age≤65	1816	920
	Age>65	1933	1035
	Not reported	57	29
Age at diagnosis	Age≤45	387	207
	45<Age≤65	1662	827
	Age>65	2125	1147
	Not reported	57	29
Gender	Male	1949	1084
	Female	2282	1126
Tumor Stage	I&II	1833	884
	III&IV	1120	659
	Not reported	1278	667
Vital Status	Alive	2828	823
	Dead	1403	1387
Survival Time	>3.5 years (dead, alive)	1133	1133
	≤3.5 years (dead)	1077	1077
	≤3.5 years (alive)	1994	-
	Unknown	27	-

**Table S2. Survival distribution of TCGA cohort under different cutoffs.**

Cutoff (year)	No. of cases	
	Survival > Cutoff years	Survival ≤ Cutoff years
1	3216	459
1.5	2558	671
2	2047	824
2.5	1680	933
3	1364	1021
<b>3.5</b>	<b>1133</b>	<b>1077</b>
4	962	1131
4.5	800	1181
5	695	1210
5.5	577	1245
6	488	1262

**Table S3. Expression summary of lncRNA signature**

	TCGA cohort			Study cohort		
LncRNA	min	median	max	min	median	max
ENSG00000206567	0.031	0.888	14.450	0.047	0.873	13.821
PCAT29	0	0.035	11.851	0	0.032	2.573
ENSG00000257989	0	0.027	58.813	0	0	58.813
LOC388282	0	0.056	16.258	0	0.059	16.258
LINC00339	0.097	8.230	165.091	0.501	8.408	47.036

**Table S4. Time-dependent ROC analysis of the 5-lncRNA signature on individual cancers (overall TCGA cohort)**

Cancer Type	Survival AUC			Cancer Type	Survival AUC	
	5-year	3-year			5-year	3-year
BLCA	0.64	0.63		LIHC	0.76	0.73
BRCA	0.65	0.60		LUAD	0.62	0.61
CESC	0.60	0.69		LUSC	0.49	0.51
CHOL	0.79	0.81		OV	0.61	0.64
COAD	0.66	0.65		PAAD	-	0.64
DLBC	-	1.00		READ	0.90	0.79
ESCA	0.82	0.54		SARC	0.56	0.61
GBM	-	0.79		SKCM	0.62	0.57
HNSC	0.51	0.63		STAD	0.58	0.56
KICH	0.89	0.93		THYM	0.94	0.93
KIRC	0.72	0.69		UCEC	0.60	0.67
KIRP	0.55	0.77		UCS	0.78	0.66
LAML	0.75	0.76		UVM	-	1.00
LGG	0.80	0.67				

*Performance for some cancer types, including ACC, PCPG, PRAD, THCA, MESO and TGCT, cannot be reported due to the insufficient cases or censored data for survival analysis.*