

Supplementary Information

. Supplementary Figures

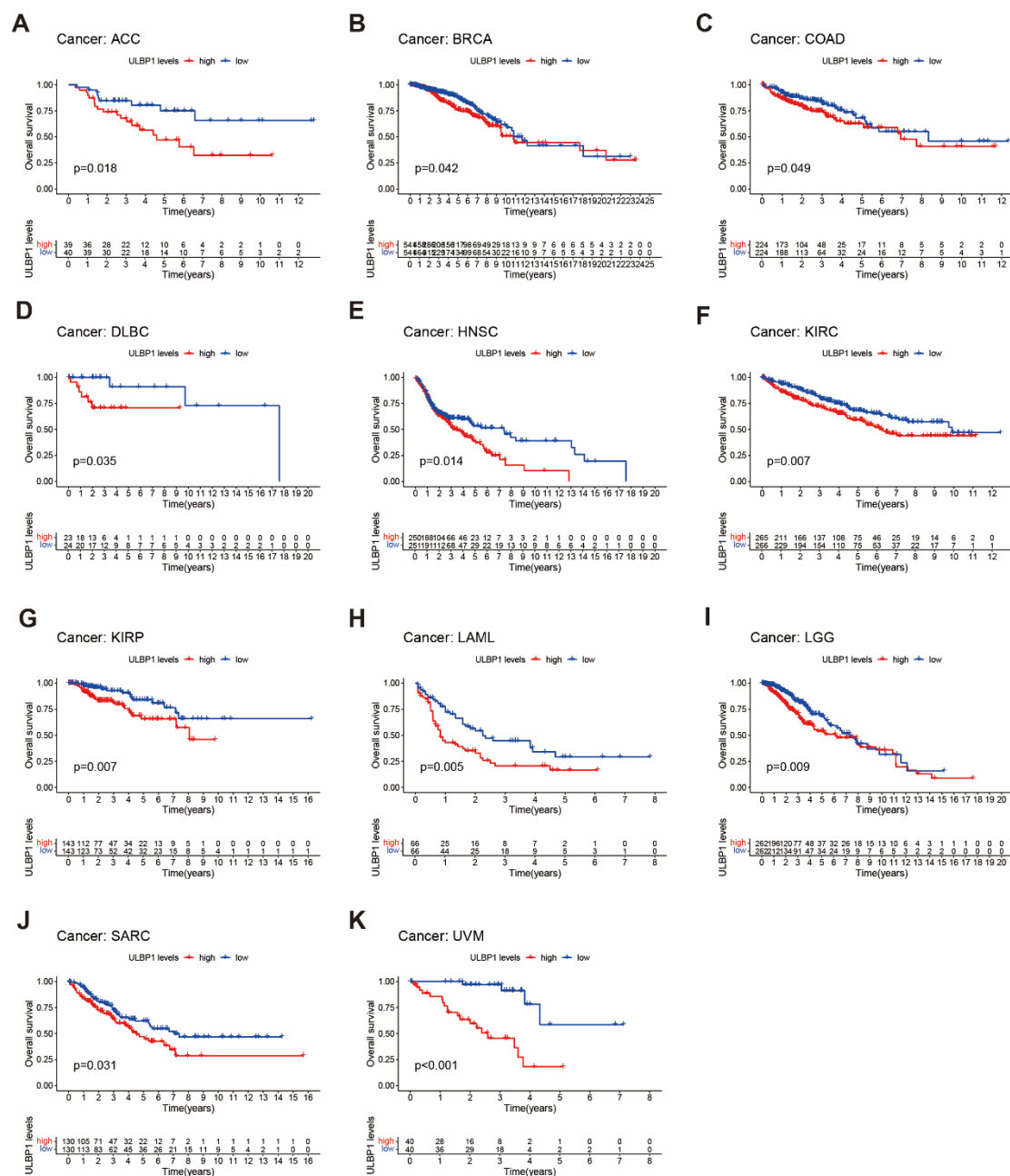


Figure S1. Kaplan–Meier curves revealing the correlation between ULBP1 overexpression and overall survival. (A) ACC, (B) BRCA, (C) COAD, (D) DLBC, (E) HNSC, (F) KIRC, (G) KIRP, (H) LAML, (I) LGG, (J) SARC, (K) UVM.

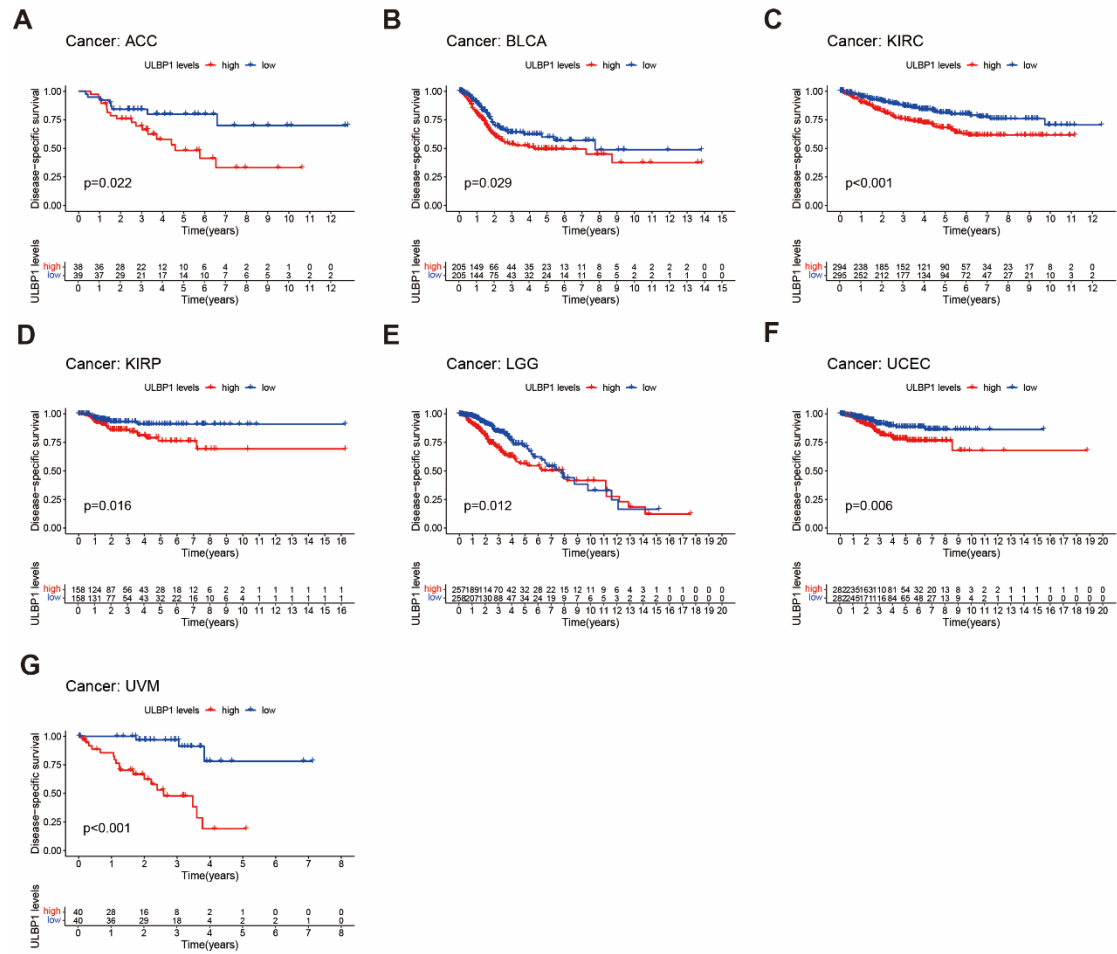


Figure S2. Kaplan–Meier curves revealing the correlation between ULBP1 overexpression and disease-specific survival. (A) ACC, (B) BLCA, (C) KIRC, (D) KIRP, (E) LGG, (F) UCEC.

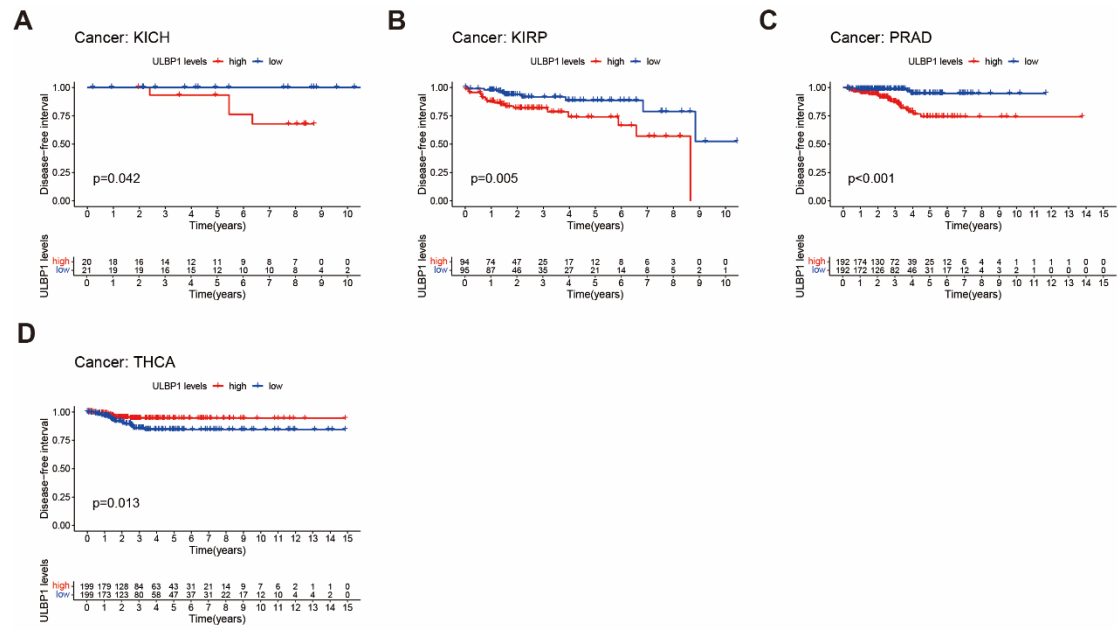


Figure S4. Kaplan–Meier curves revealing the correlation between ULBP1 overexpression and disease-free interval. (A) KICH, (B) KIRP, (C) PRAD, (D) THCA.

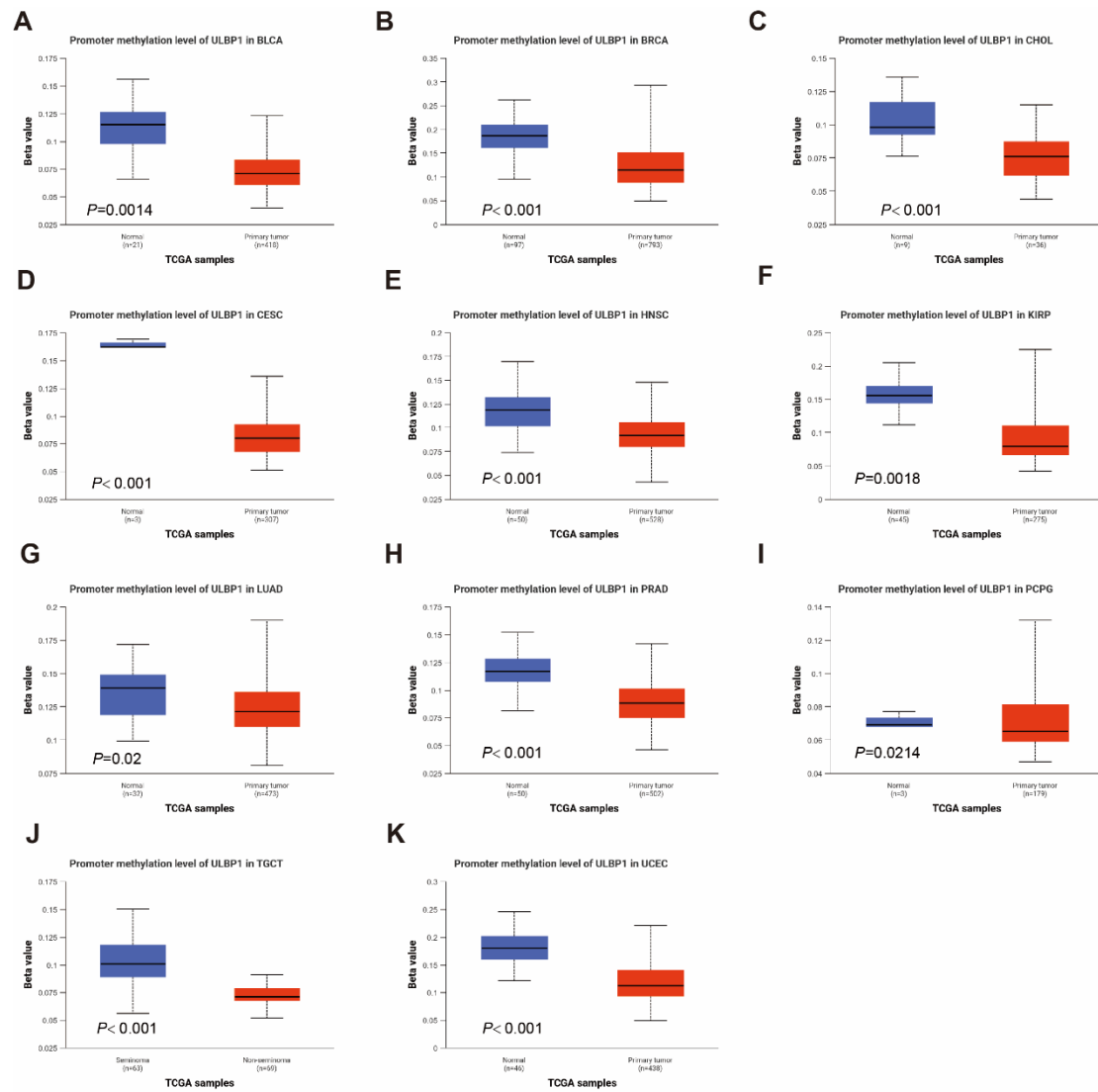


Figure S5. Promoter methylation levels of ULBP1 in pan-cancers from UALCAN. (A) BLCA, (B) BRCA, (C) CHOL, (D) CESC, (E) HNSCC, (F) KIRP, (G) LUAD, (H) PRAD, (I) PCPG, (J) TGCT, (K) UCEC.

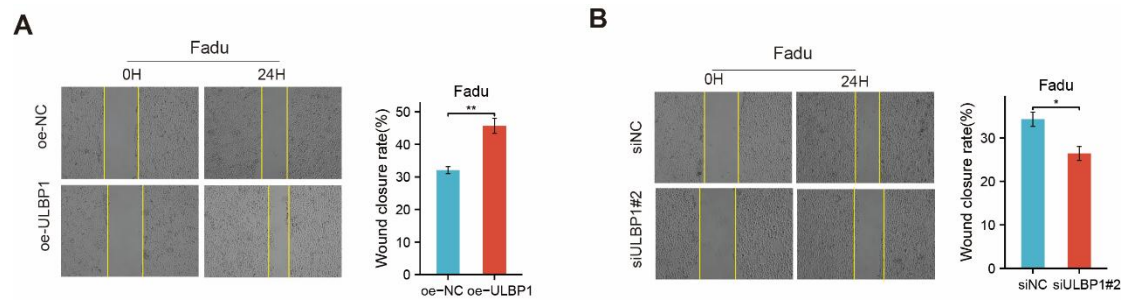


Figure S6. Representative images and statistical graphs of invasion assays for Fadu cells in the indicated groups.

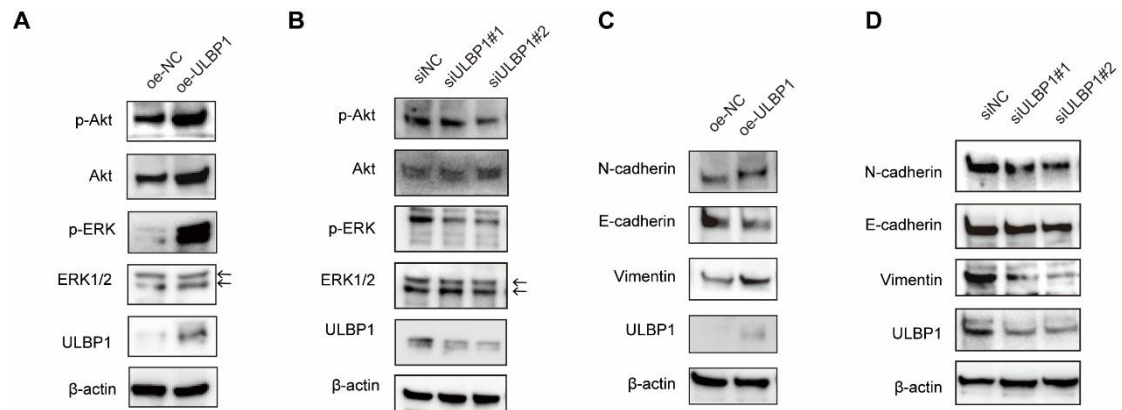


Figure S7. Correlation of ULBP1 with KRAS, EMT signaling pathways. Western blot analysis of KRAS pathway markers (p-Akt, Akt, p-ERK, and ERK1/2) in Fadu cells with ULBP1 overexpression (A), ULBP1 knockdown (B), or negative control. Western blot analysis of EMT-related proteins (E-cadherin, N-cadherin, Vimentin) in Fadu cells with ULBP1 overexpression (C), ULBP1 knockdown (D), or negative control.

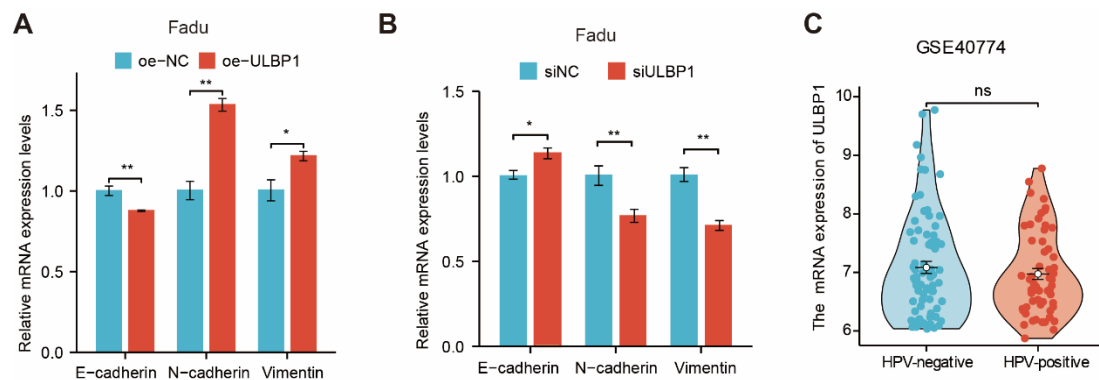


Figure S8. The relationship between ULBP1 expression and the mRNA levels of EMT markers, as well as HPV infection status in HNSCC. (A) Relative mRNA expression levels of E-cadherin,

N-cadherin, and vimentin in Fadu cells with overexpression of ULBP1 compared to negative control. (B) Relative mRNA expression levels in Fadu cells with ULBP1 knockdown compared to negative control. (C) The mRNA expression of ULBP1 in HPV - negative and HPV - positive samples from the GSE40774 dataset. ns: not significant. ns, $p \geq 0.05$; *, $p < 0.05$; **, $p < 0.01$.

Fig.9A, B

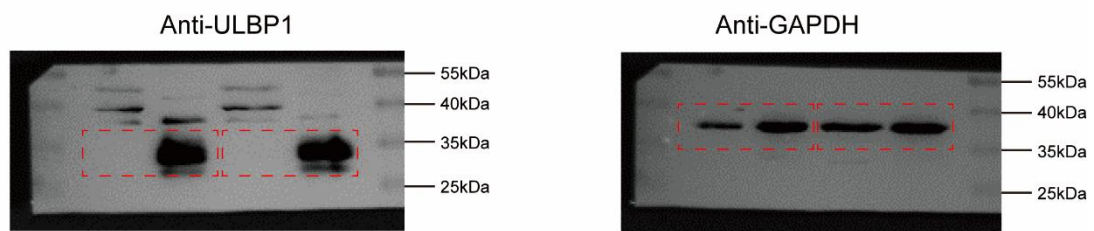


Fig.9C

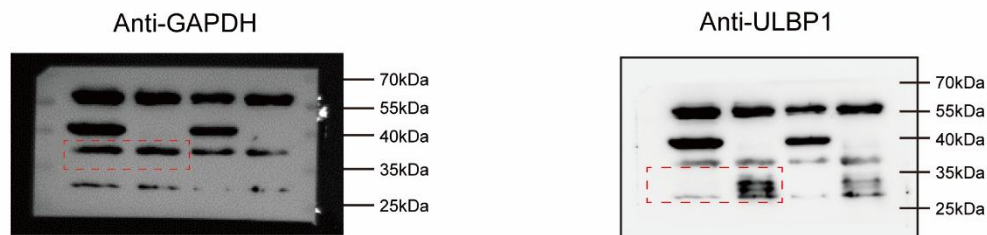


Fig.9D

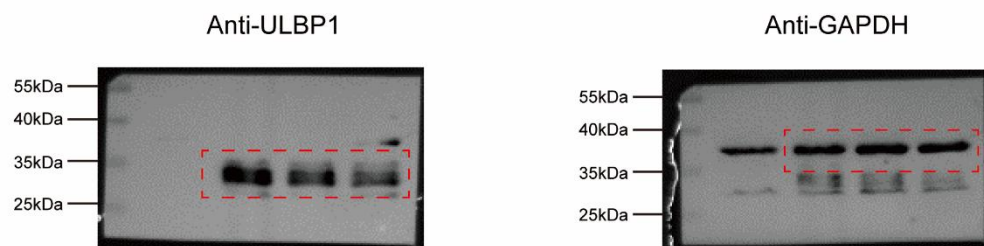


Fig.9E

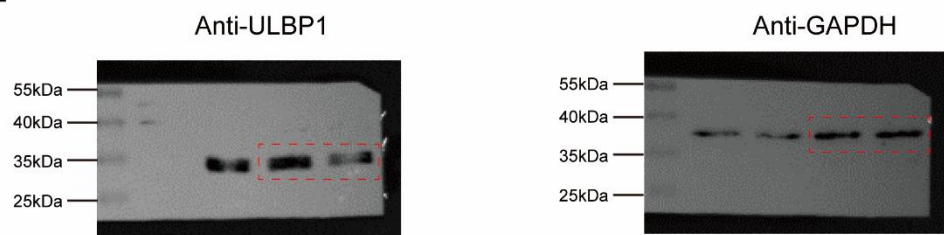


Fig.9F



Figure S9. The Original electrophoretic blots of the image presented in the manuscript. The red dotted line indicates the approximate cropping position of Figure 9 in the original immunoblot

image.

Fig.12E

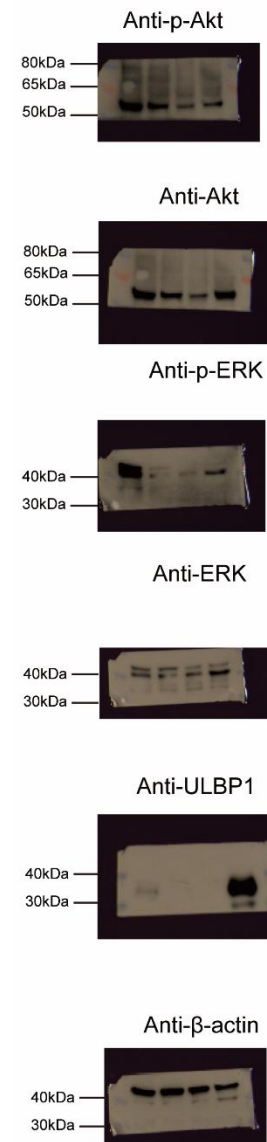


Fig.12F

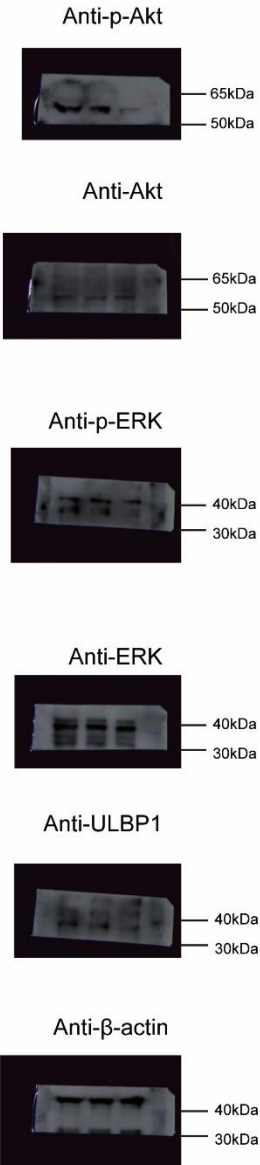


Fig.12G



Fig.12H

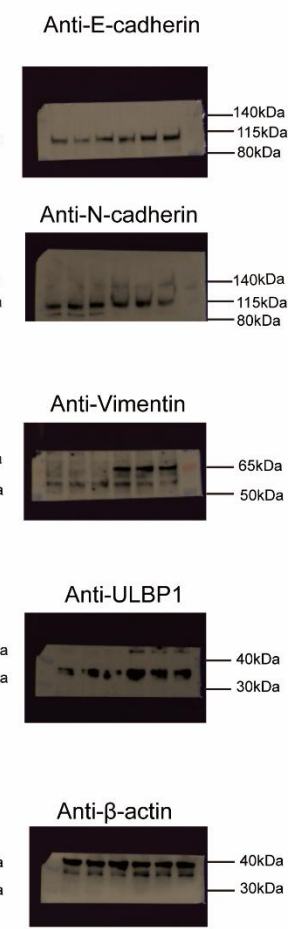


Figure S10. The Original electrophoretic blots of the image presented in Fig.12.

Supplementary Fig.8

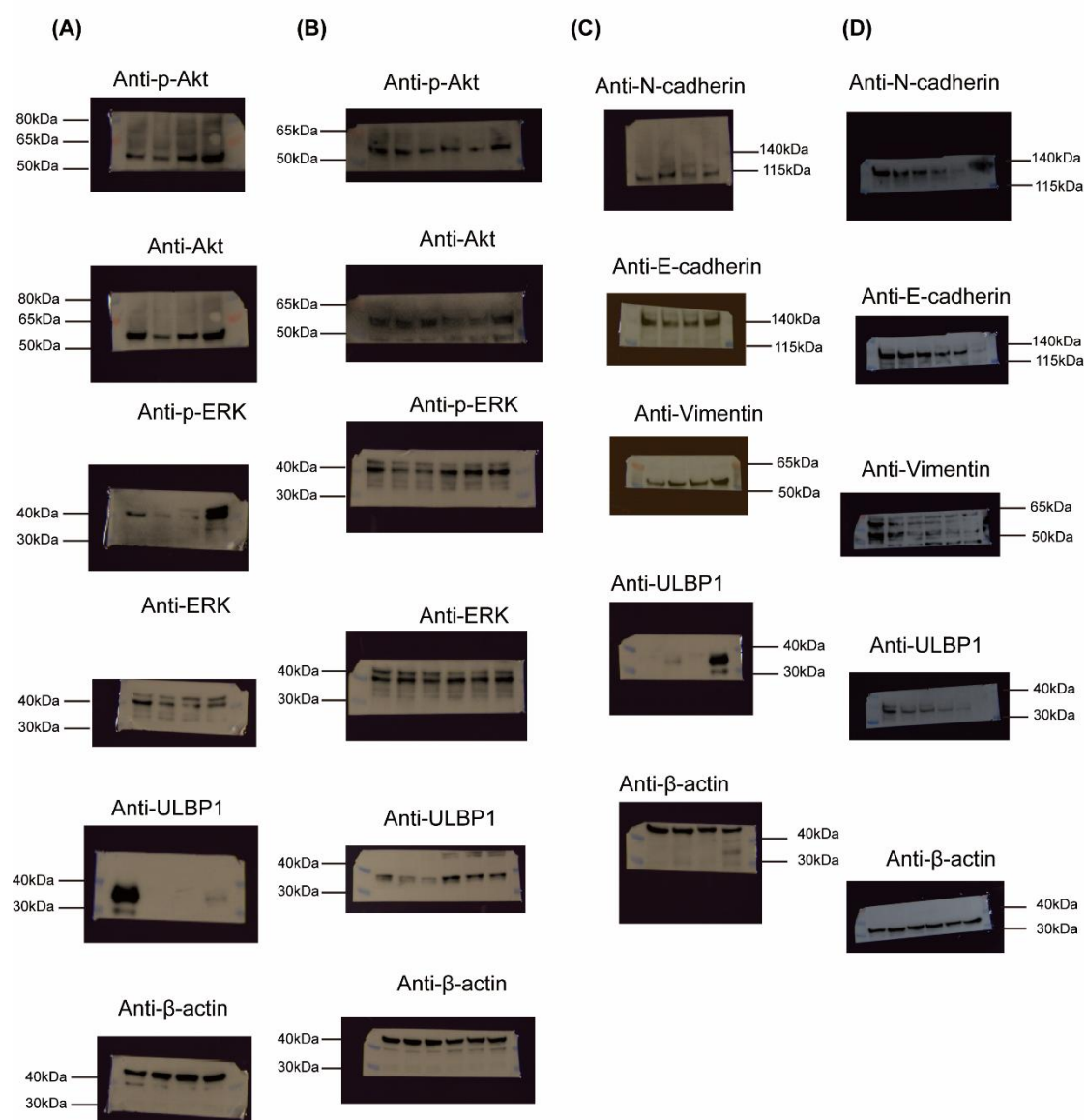


Figure S11. The Original electrophoretic blots of the image presented in Supplementary Fig.S7.

Supplementary Tables

Table S1. The abbreviations for 33 cancer types

Full name	Abbreviations
Adrenocortical carcinoma	ACC
Bladder urothelial carcinoma	BLCA
Breast invasive carcinoma	BRCA
Cervical squamous cell carcinoma and endocervical adenocarcinoma	CESC
Cholangiocarcinoma	CHOL
Colon adenocarcinoma	COAD
Diffuse large B-cell lymphoma	DLBC

Esophageal carcinoma	ESCA
Glioblastoma multiforme	GBM
Head and neck squamous cell carcinoma	HNSC
Kidney chromophobe carcinoma	KICH
Kidney renal clear cell carcinoma	KIRC
Kidney renal papillary cell carcinoma	KIRP
Acute myeloid leukemia-like	LAML
Lower-grade glioma	LGG
Liver hepatocellular carcinoma	LIHC
Lung adenocarcinoma	LUAD
Lung squamous cell carcinoma	LUSC
Mesothelioma	MESO
Pancreatic adenocarcinoma	PAAD
Pheochromocytoma and paraganglioma	PCPG
Prostate adenocarcinoma	PRAD
Rectum adenocarcinoma	READ
Sarcoma	SARC
Skin cutaneous melanoma	SKCM
Stomach adenocarcinoma	STAD
Stomach and esophageal carcinoma	STES
Testicular germ cell tumors	TGCT
Thyroid carcinoma	THCA
Thymoma	THYM
Uterine corpus endometrial carcinoma	UCEC
Uterine carcinosarcoma	UCS
Uveal melanoma	UVM

Table S2. The siRNA sequences of ULBP1

Gene	sense (5'-3')	antisense (5'-3')
siULBP1#1	UCCUAAGUCCAGACCUGAATT	CCUUAAGGGCAACUGCUUTT
siULBP1#2	UUCAGGUCUGGACUUAGGATT	AAGCAGUUGCCCUUUAAGGTT

Table S3. The sequences for primers.

Gene	Forward primer (5'-3')	Reverse primer (5'-3')
ULBP1	TTCTGCACCTGCTGTCTGGC	AGGCCTTTCATCCACCAGGC
E-cadherin	TCTGATTCTGCTGCTCTTGCTGTT	TCCTCTTCTCCGCCTCCTTCTTC
Vimentin	CGCCATCAACACCGAGTTCAAGA	CCAGAGACGCATTGTCAACATCCT

N-cadherin	CCTCCAGAGTTTACTGCCATGAC	GTAGGATCTCCGCCACTGATTC
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Table S4. Information on primary antibodies.

Antibody	Cat No.	Manufacturer	Application
ULBP1	ab176566	Abcam	WB
ULBP1	DF14795	Affinity	IHC
Vimentin	Ab45939	Abcam	WB
E-cadherin	20874-1-AP	Proteintech	WB
N-cadherin	22018-1-AP	Proteintech	WB
p-AKT	CY5885	Abways	WB
AKT	CY5551	Abways	WB
ERK1/2	CY5487	Abways	WB
p-ERK	CY5277	Abways	WB
Ki67	ab16667	Abcam	IHC