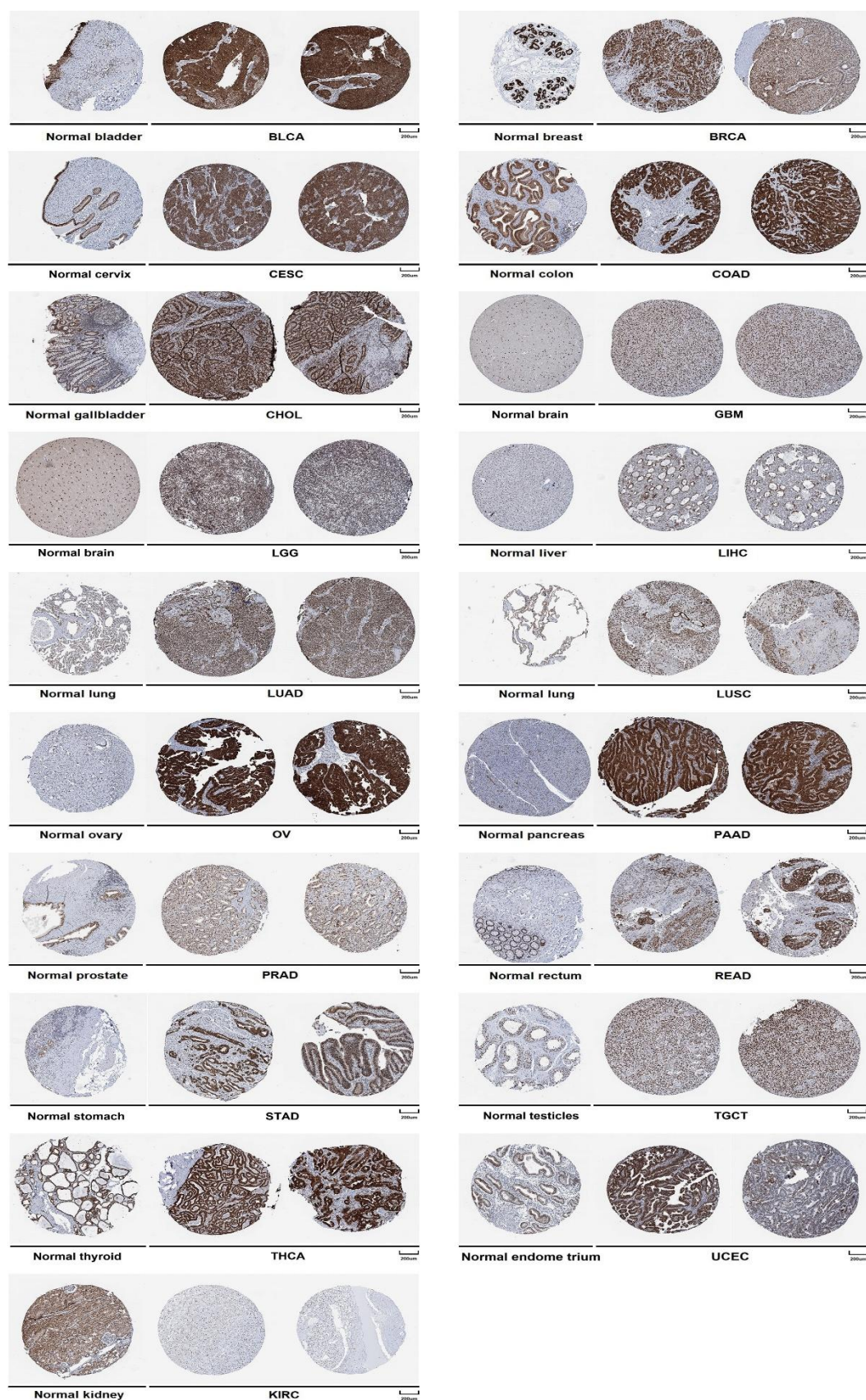
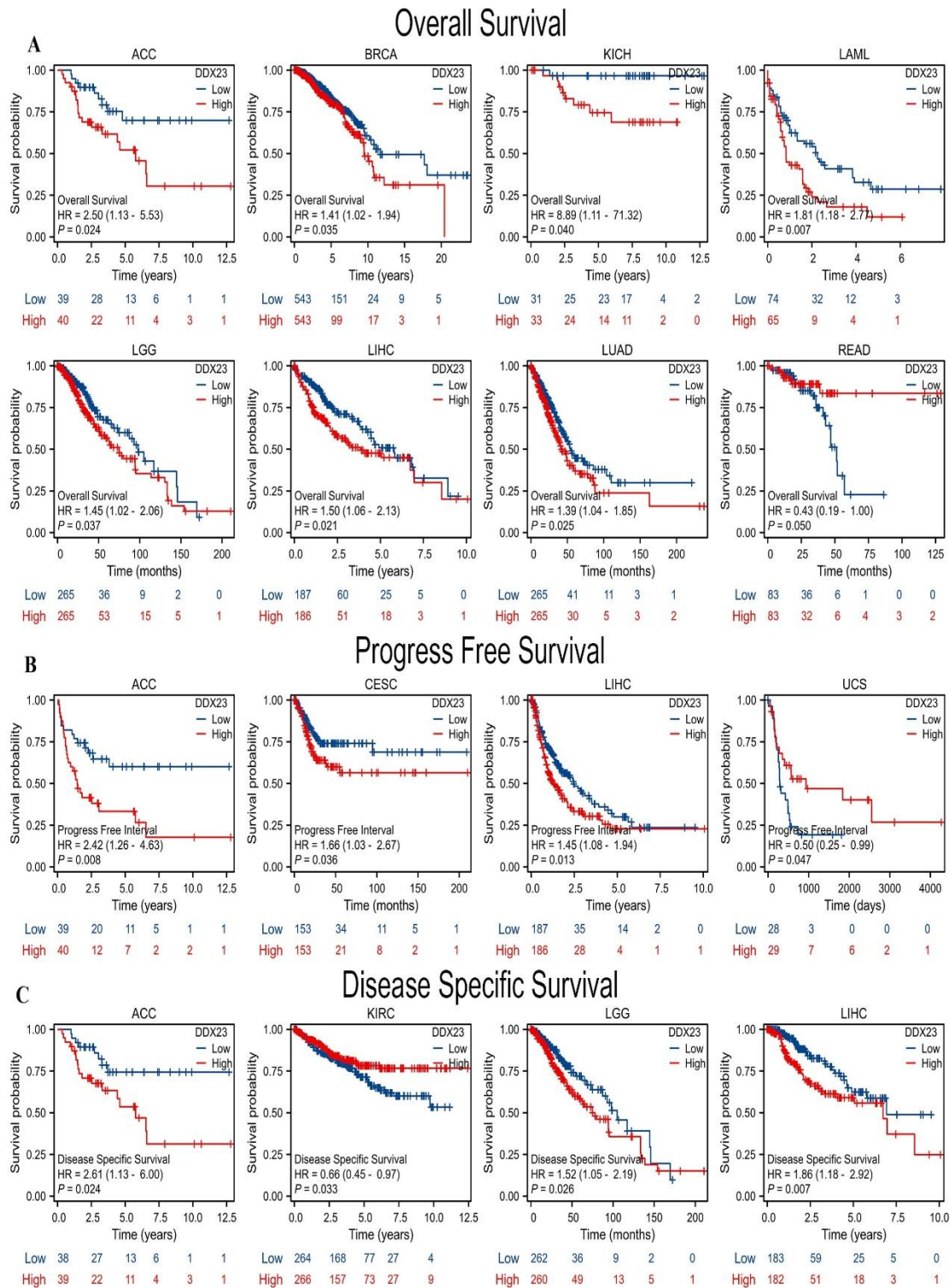
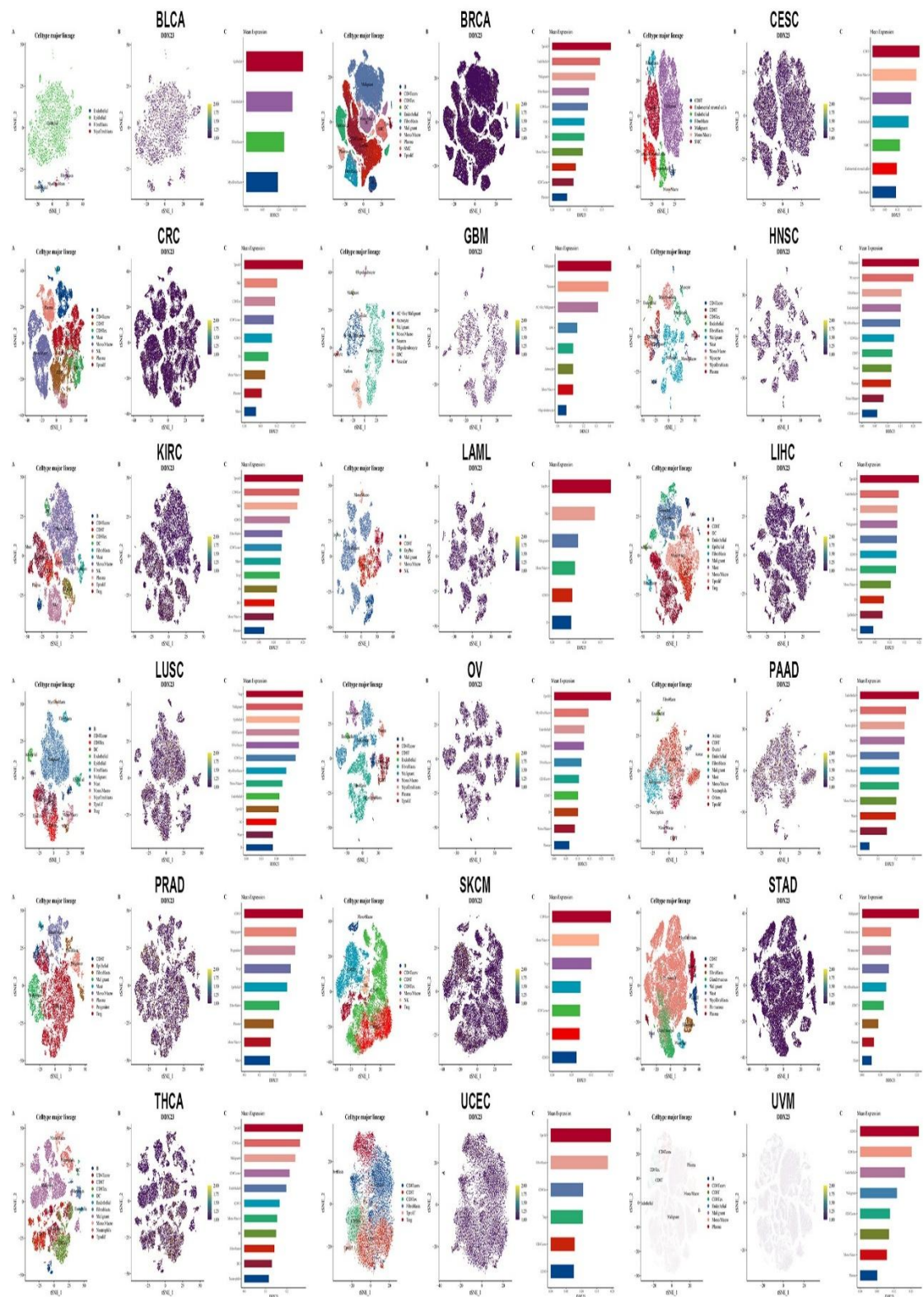




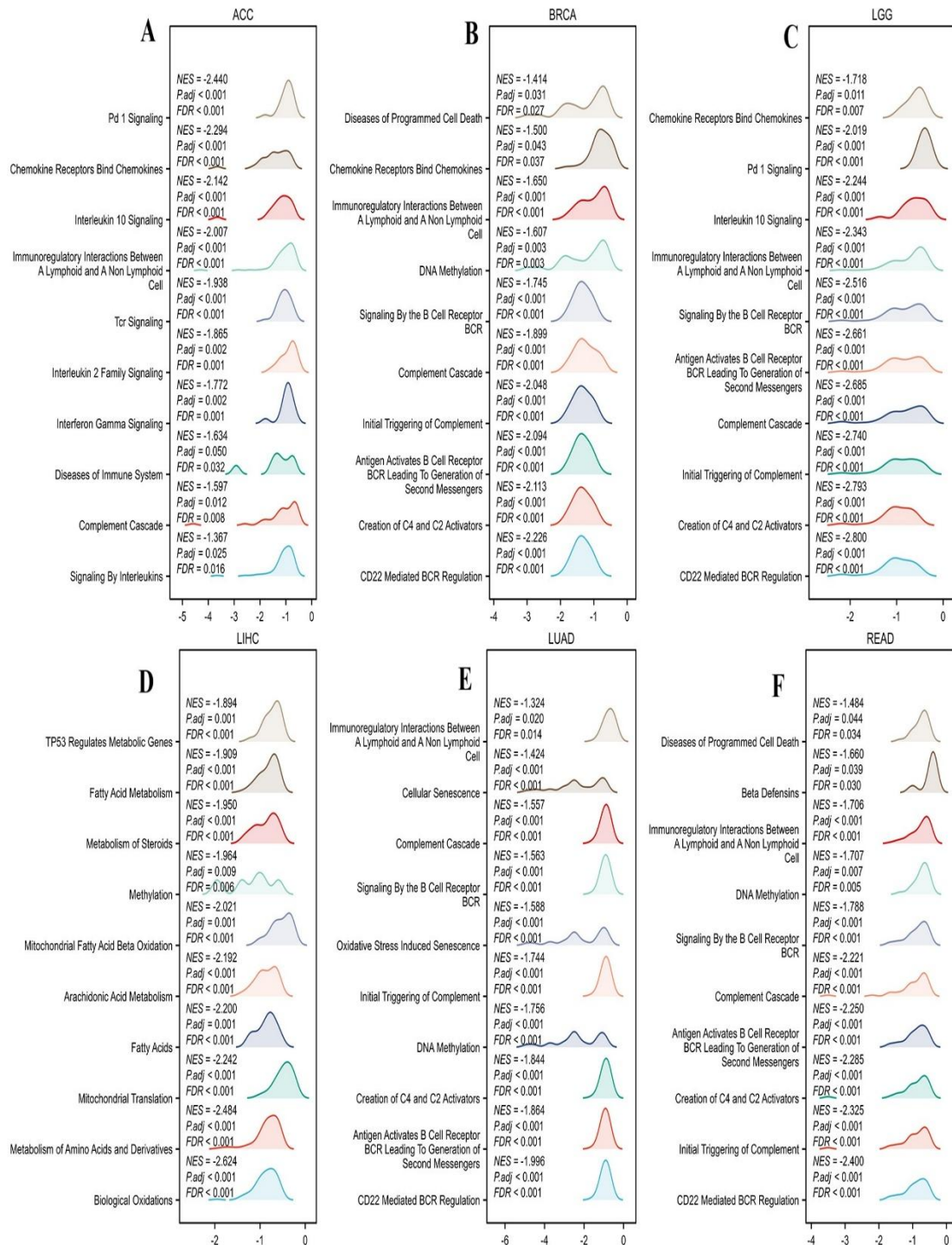
Supplementary Figure S1. Immunohistochemical Staining of 19 Normal Tissues and Tumor Tissues from the HPA Database.



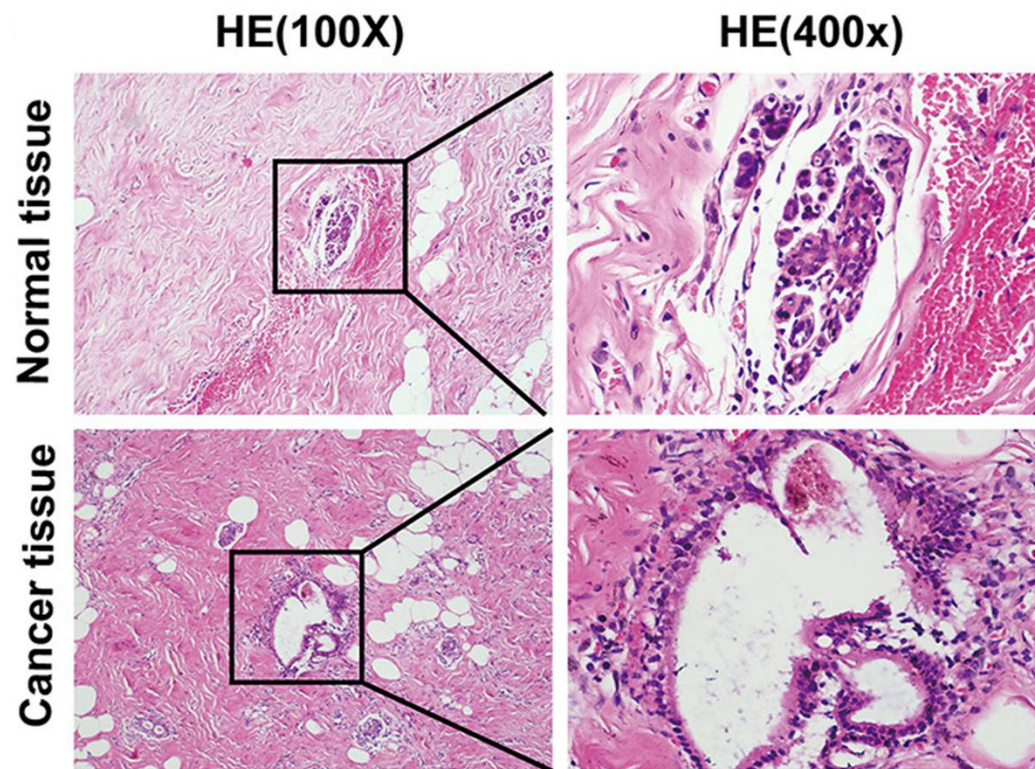
Supplementary Figure S2. Kaplan-Meier (KM) Curves Showing the Detailed Association Between DDX23 Expression and Prognosis in Cancer Patients. (A) Overall Survival (OS) in ACC, BRCA, KICH, LAML, LGG, LIHC, LUAD, READ. (B) Progression-free survival (PFS) in ACC, CESC, LIHC and UCS. (C) Disease-Specific Survival (DSS) in ACC, KIRC, LGG and LIHC.



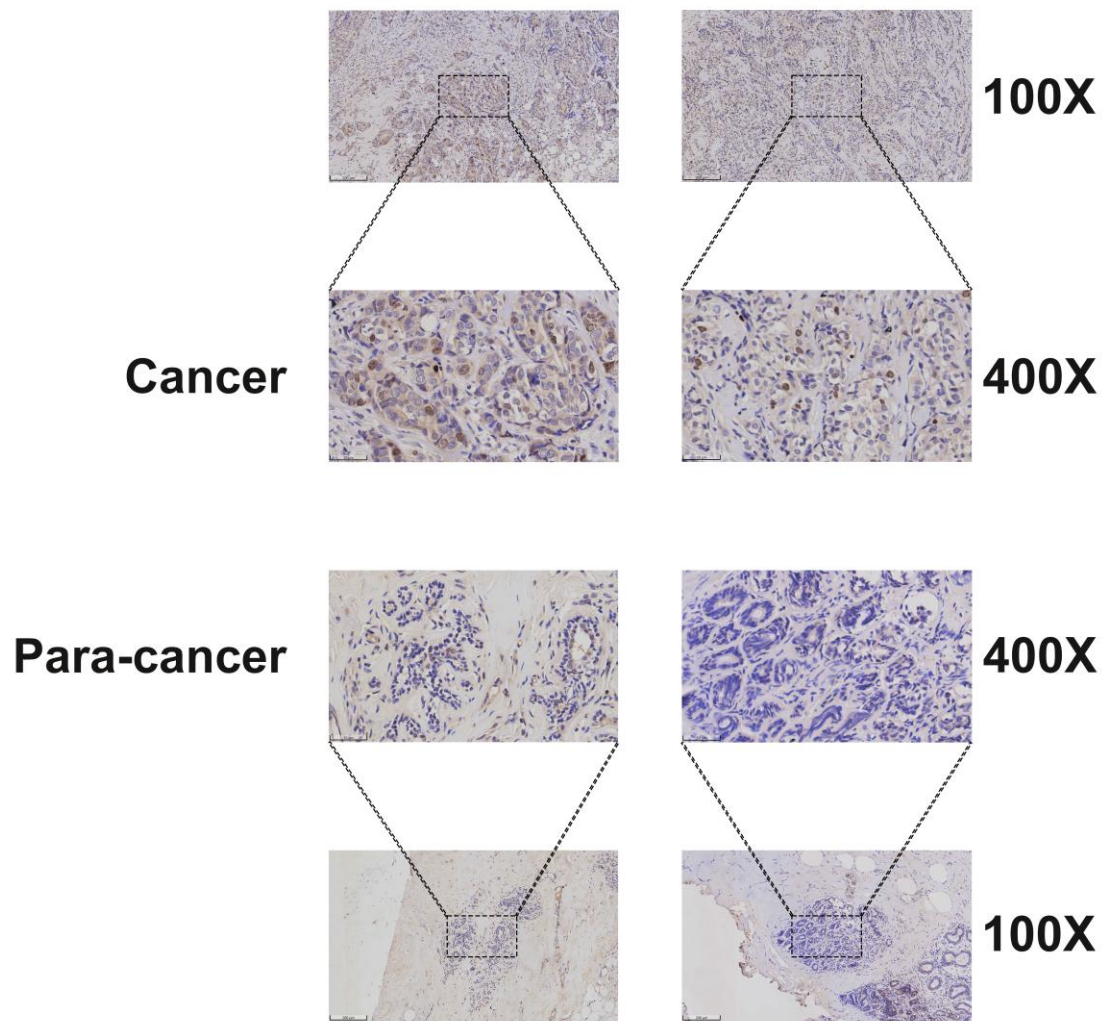
Supplementary Figure S3. Cellular subtype distribution and expression proportion of DDX23 across 18 cancer types



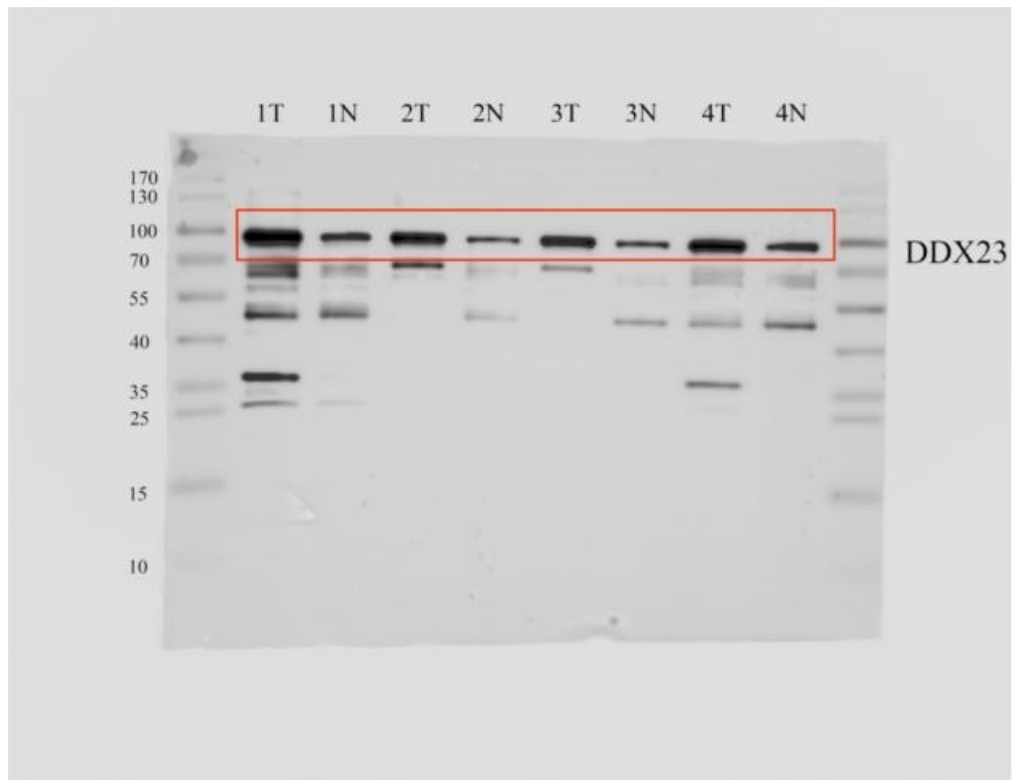
Supplementary Figure S4. GSEA Functional Enrichment Analysis of DDX23 in six Cancers. In ACC (A), BRCA (B), LGG (C), LIHC (D), LUAD (E), READ, the first 10 pathways are negatively correlated with DDX23 expression.



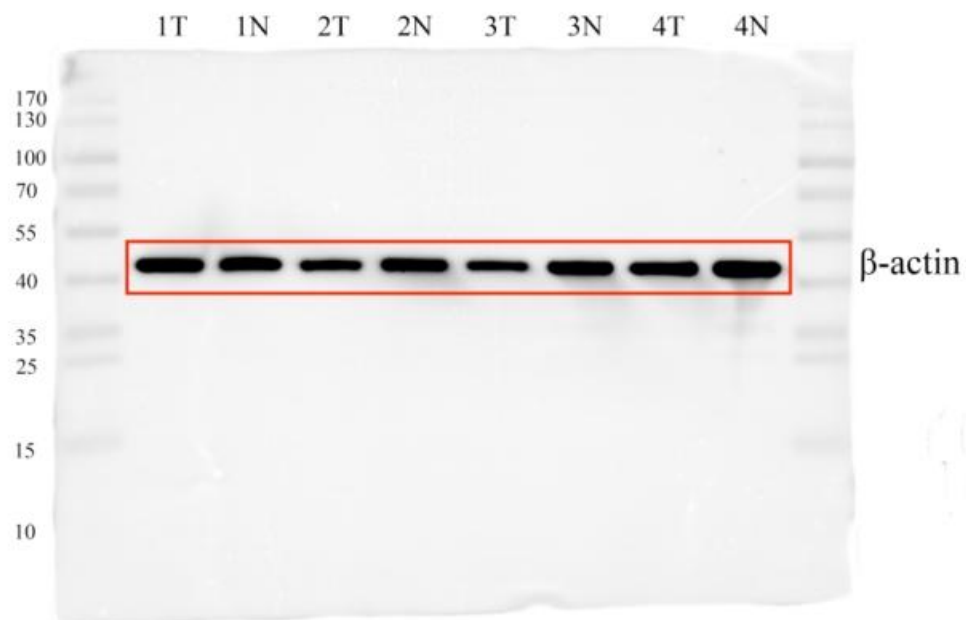
Supplementary Figure S5. Histological validation of normal breast tissue and cancer tissue by HE staining.



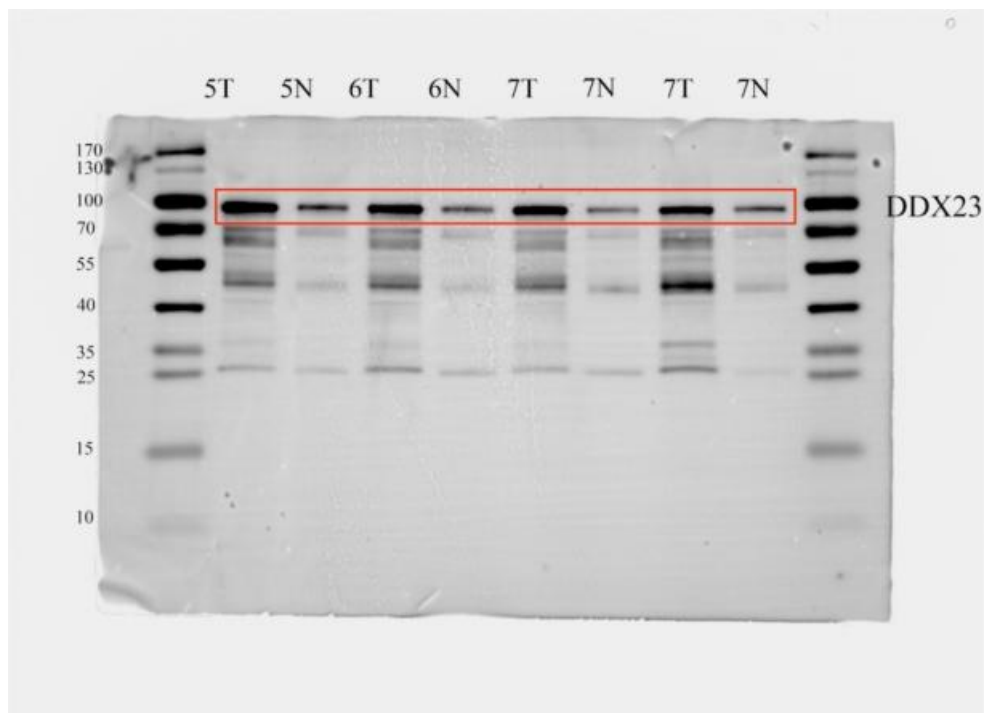
Supplementary Figure S6. Additional immunohistochemical validation of DDX23 expression in breast cancer tissues.



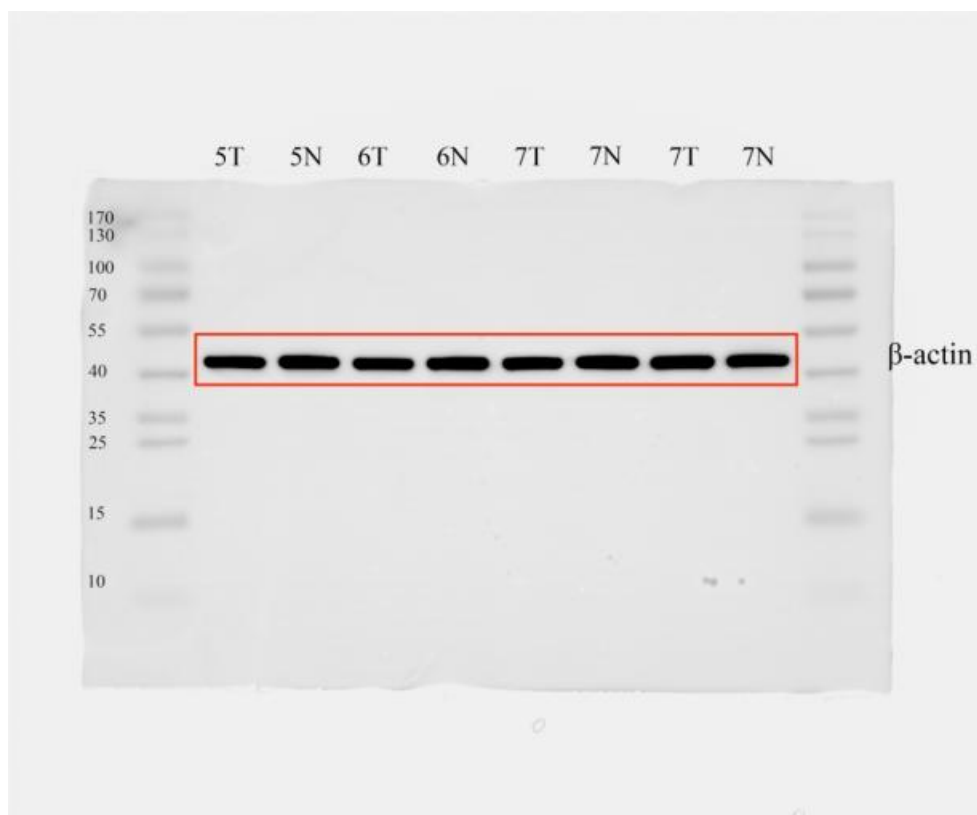
Western blot images of the target protein in patients T1-T4



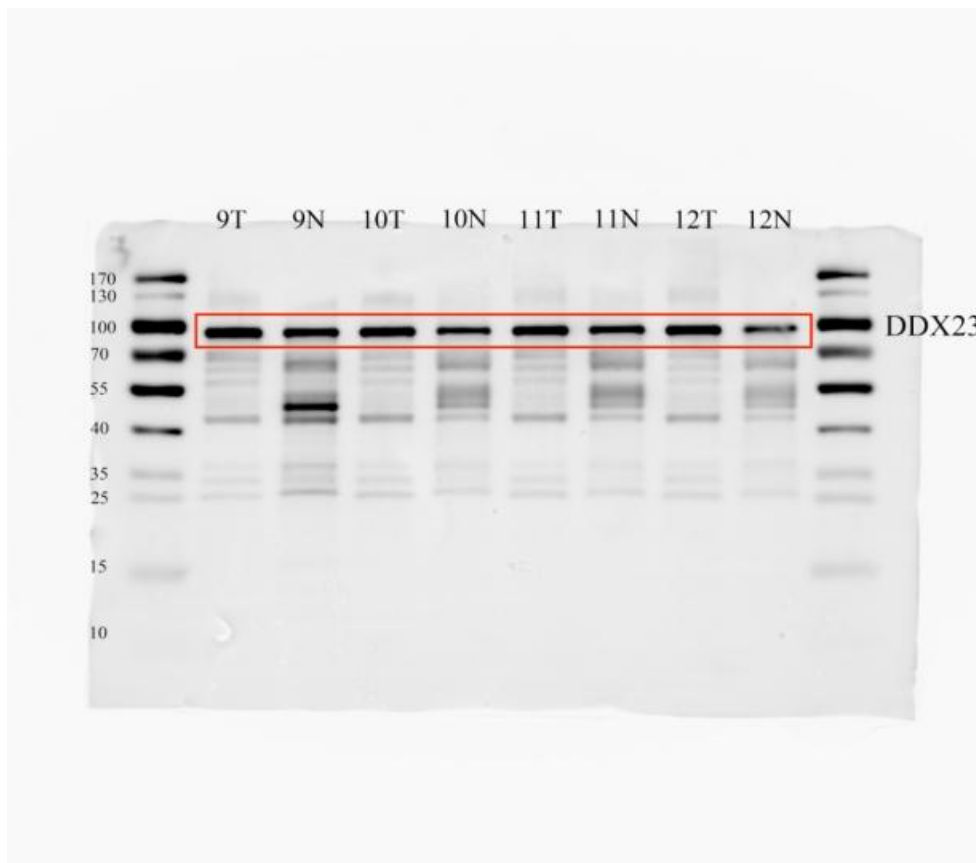
Western blot images of the Internal Control in patients T1-T4



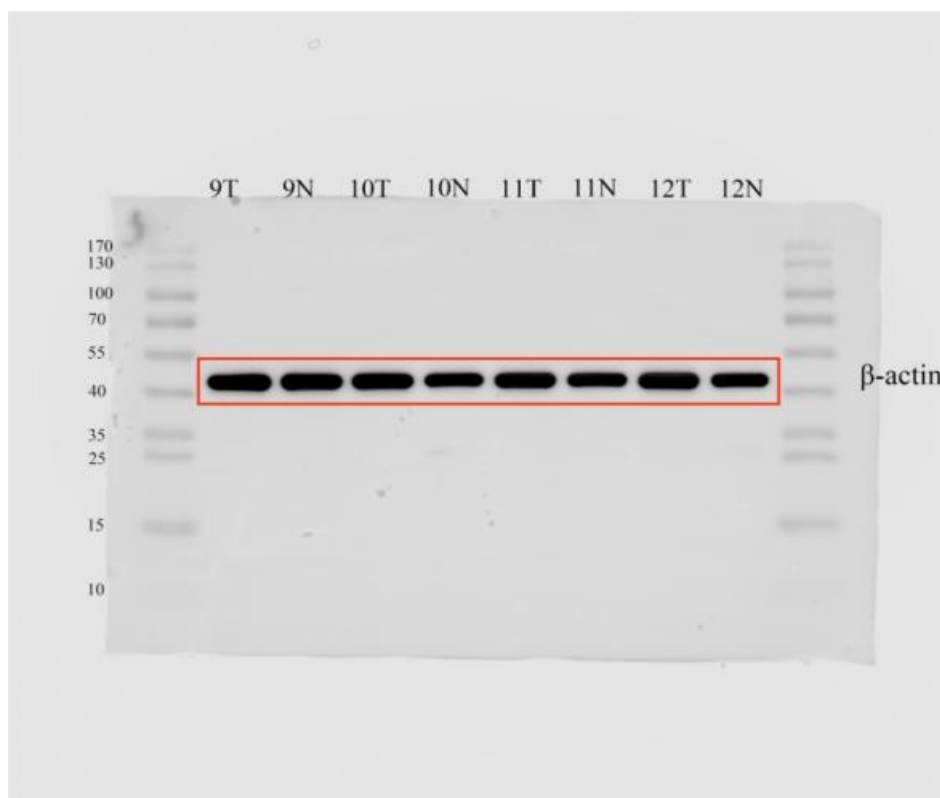
Western blot images of the target protein in patients T5-T7



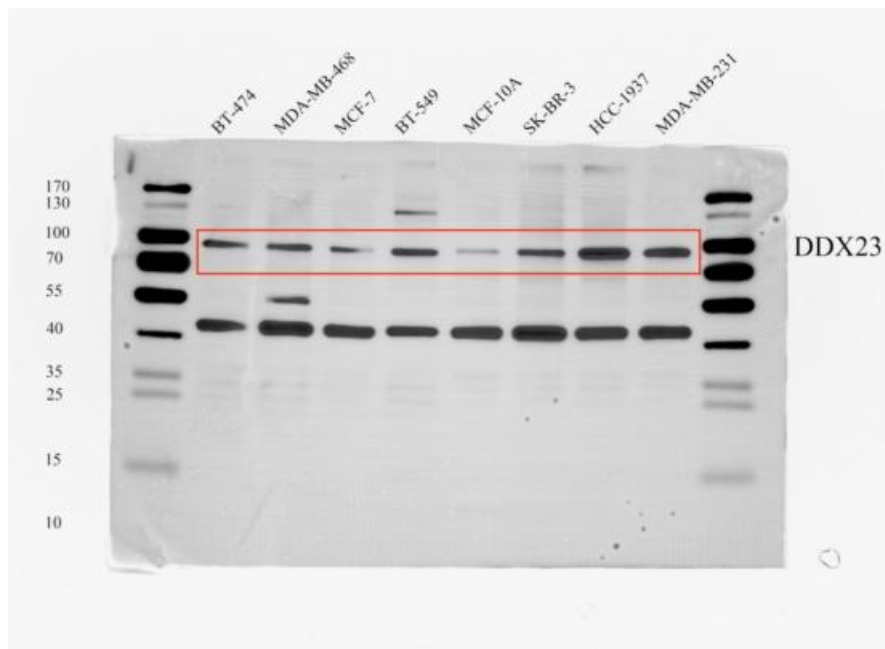
Western blot images of the Internal Control in patients T5-T7



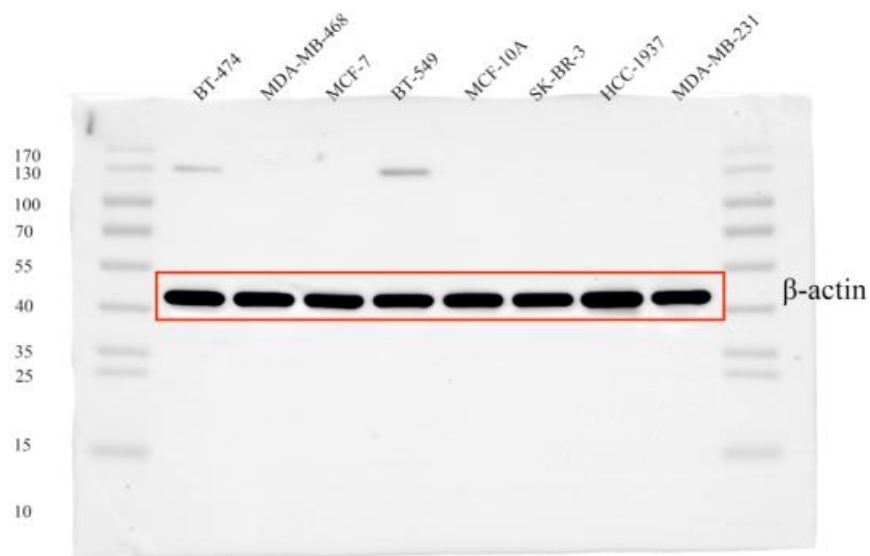
Western blot images of the target protein in patients T9-T12



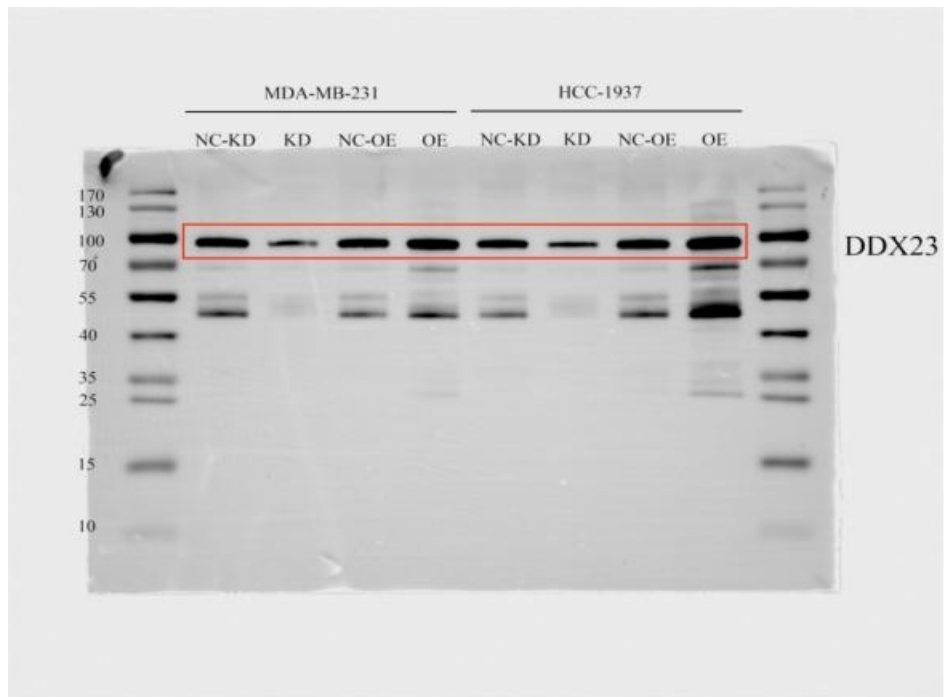
Western blot images of the Internal Control in patients T9-T12



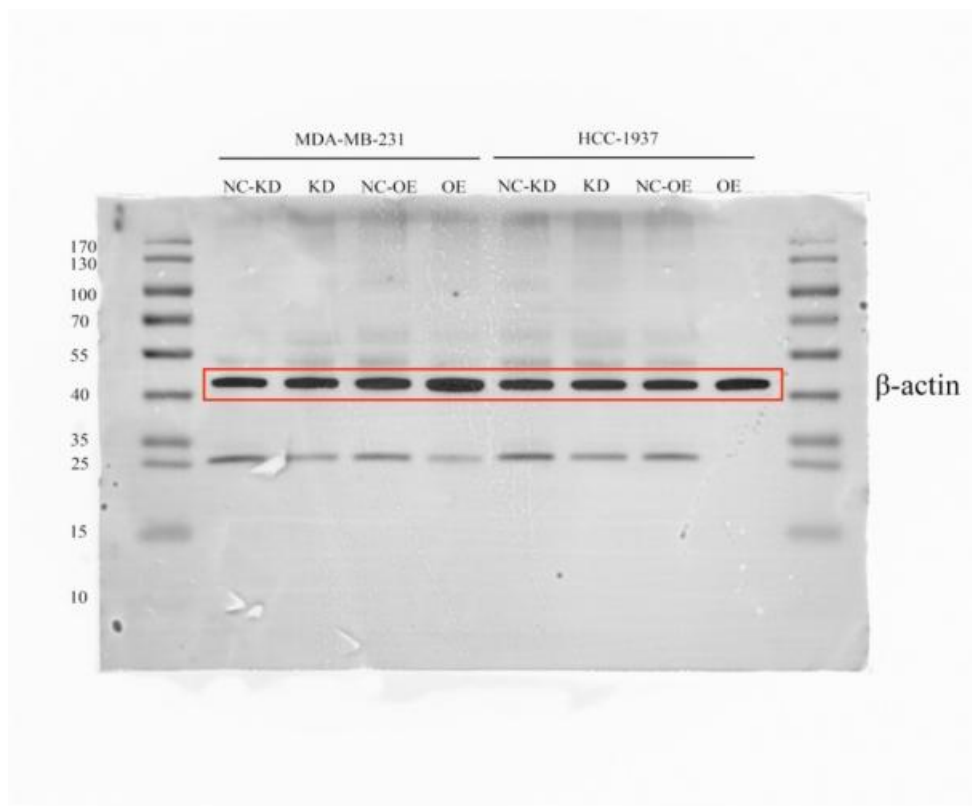
Western blot images of the target protein from 8 Breast Cancer Cell Lines



Western blot images of the Internal Control from 8 Breast Cancer Cell Lines



MDA-MB-231 and HCC-1937 cell lines validation of target gene regulation efficiency - target protein



MDA-MB-231 and HCC-1937 cell lines validation of target gene regulation efficiency - Internal Control

Supplement Tables

Supplement Table S1. DDX23 sequence and primer sequence

Name	Targeting sequence (5'→3')
sh-DDX23-1	CGTGGTATTGACATCCAAGAT
sh-DDX23-2	GCAATCTTGGAGCAAGGCTTT
sh-DDX23-3	CCACACATCTTGGAGGTCATT
DDX23-OE-F	GCGATCACGGACTCCTGAC
DDX23-OE-R	GAACGATGCCGCTTTCTATCT
DDX23-F	GAGCTGGCTGACAAAAAGGAC
DDX23-R	CCAGCAGCTTTCTGAGACAGT
GAPDH-F	ATGGGAAGGTGAAGGTCGG
GAPDH-R	CCTGGAAGATGGTGATGGGATT

Supplementary Table S2. The top 100 genes associated with DDX23.

Supplementary Table S3. GO terms and KEGG pathways enriched.

Supplementary Table S4. DDX23 Pan-Cancer Prognosis (OS, PFI, DSS) - Combined Data

Supplementary Table S5. Differential Expression of DDX23 Across Pan-Cancer in TCGA

Supplementary Table S6. DDX23 AUC and 95% CI in pan-cancer ROC analysis DeLong method