

**Table S3. List of cancer types, number of tumor and normal tissue samples, and statistical significance in the gene expression changes.**

Abbreviation	Cancer type	Tumor	Normal	Statistical significance (gene expression)					
				FASTK	FASTKD1	FASTKD2	FASTKD3	TBRG4	FASTKD5
ACC	Adrenocortical carcinoma	79	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
AML	Acute myeloid leukemia	173	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
BLCA	Bladder urotelial carcinoma	408	19	<b><math>3.8 \times 10^{-12}</math></b>	$5.3 \times 10^{-02}$	<b><math>7.9 \times 10^{-04}</math></b>	<b><math>1.7 \times 10^{-11}</math></b>	<b><math>1.9 \times 10^{-12}</math></b>	$6.8 \times 10^{-01}$
BRCA	Breast invasive carcinoma	1097	114	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>1.9 \times 10^{-08}</math></b>	<b><math>1.5 \times 10^{-10}</math></b>	<b><math>1.1 \times 10^{-16}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>1.9 \times 10^{-05}</math></b>
CESC	Cervical squamous cell carcinoma and endocervical adenocarcinoma	305	3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CHOL	Cholangiocarcinoma	36	9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
COAD	Colorectal adenocarcinoma	286	41	<b><math>1.4 \times 10^{-03}</math></b>	<b><math>6.5 \times 10^{-03}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>4.8 \times 10^{-03}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	$1.2 \times 10^{-02}$
DLBC	Lymphoid Neoplasm Diffuse Large B-cell Lymphoma	48	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ESCA	Esophageal carcinoma	184	11	<b><math>4.3 \times 10^{-05}</math></b>	<b><math>4.7 \times 10^{-06}</math></b>	<b><math>9.3 \times 10^{-03}</math></b>	<b><math>7.7 \times 10^{-08}</math></b>	<b><math>5.7 \times 10^{-10}</math></b>	<b><math>2 \times 10^{-03}</math></b>
GBM	Glioblastoma multiforme	156	5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
HNSC	Head and neck squamous cell carcinoma	520	44	<b><math>1 \times 10^{-04}</math></b>	$3.4 \times 10^{-02}$	<b><math>1.2 \times 10^{-03}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>1.4 \times 10^{-03}</math></b>
KICH	Kidney Chromophobe carcinoma	67	25	<b><math>8.5 \times 10^{-07}</math></b>	<b><math>4.6 \times 10^{-04}</math></b>	<b><math>3.9 \times 10^{-08}</math></b>	<b><math>5.8 \times 10^{-04}</math></b>	<b><math>4.9 \times 10^{-08}</math></b>	$2.6 \times 10^{-01}$
KIRC	Kidney renal clear cell carcinoma	533	72	<b><math>1.2 \times 10^{-03}</math></b>	<b><math>1.7 \times 10^{-12}</math></b>	$1.7 \times 10^{-02}$	$5.5 \times 10^{-01}$	<b><math>7.5 \times 10^{-09}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>
KIRP	Kidney renal papillary cell carcinoma	290	32	<b><math>1.6 \times 10^{-12}</math></b>	$9.7 \times 10^{-01}$	$1.1 \times 10^{-01}$	$5.8 \times 10^{-01}$	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>1.7 \times 10^{-04}</math></b>
LGG	Brain Lower Grade Glioma	513	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
LIHC	Liver hepatocellular carcinoma	371	50	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>
LUAD	Lung adenocarcinoma	515	59	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>3.3 \times 10^{-16}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	$1.1 \times 10^{-01}$
LUSC	Lung squamous cell carcinoma	503	52	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>2.1 \times 10^{-13}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>3 \times 10^{-12}</math></b>
MESO	Mesothelioma	87	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
OV	Ovarian serous cystadenocarcinoma	305	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
PAAD	Pancreas adenocarcinoma	178	4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
PCPG	Pheochromocytoma and paraganglioma	179	3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
PRAD	Prostate adenocarcinoma	497	52	<b><math>1.6 \times 10^{-12}</math></b>	$6.4 \times 10^{-01}$	<b><math>1.2 \times 10^{-03}</math></b>	<b><math>2.3 \times 10^{-08}</math></b>	<b><math>5.7 \times 10^{-09}</math></b>	$6.5 \times 10^{-01}$
READ	Rectal adenocarcinoma	166	10	<b><math>1.5 \times 10^{-05}</math></b>	$4.3 \times 10^{-02}$	<b><math>7.8 \times 10^{-03}</math></b>	$7.9 \times 10^{-01}$	<b><math>1.6 \times 10^{-12}</math></b>	$8.4 \times 10^{-02}$
SARC	Sarcoma	260	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
SKCM	Skin cutaneous melanoma	472	1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
STAD	Stomach adenocarcinoma	415	34	<b><math>2 \times 10^{-04}</math></b>	<b><math>7.2 \times 10^{-14}</math></b>	<b><math>1 \times 10^{-12}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>&lt; 1 \times 10^{-12}</math></b>
TGCT	Testicular Germ Cell Tumors	150	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
THCA	Thyroid carcinoma	505	59	<b><math>2.3 \times 10^{-03}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>6.9 \times 10^{-10}</math></b>	<b><math>6.4 \times 10^{-07}</math></b>	<b><math>1.6 \times 10^{-12}</math></b>
THYM	Thymoma	120	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UCEC	Uterine Corpus Endometrial Carcinoma	546	35	<b><math>3.2 \times 10^{-09}</math></b>	<b><math>4.9 \times 10^{-11}</math></b>	<b><math>7.6 \times 10^{-05}</math></b>	$2.9 \times 10^{-01}$	<b><math>1.6 \times 10^{-12}</math></b>	<b><math>1.1 \times 10^{-10}</math></b>
UCS	Uterine Carcinosarcoma	57	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UVM	Uveal Melanoma	80	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Statistically significant p-values are in bold.