

**S9 Table.** Significant KEGG pathways of ACE2 and top 100 similar genes in different tumors

Tumor	Pathway	Gene	p-value	Adjusted p-value	Odds ratio	Combined score
<b>Lung adenocarcinoma</b>						
	Phenylalanine metabolism	<i>MAOA, ALDH3B1</i>	0.003	> 0.99	23.30	133.34
	Histidine metabolism	<i>MAOA, ALDH3B1</i>	0.006	0.918	17.22	88.20
	beta-Alanine metabolism	<i>ALDH6A1, ALDH3B1</i>	0.011	> 0.99	12.78	58.00
	Propanoate metabolism	<i>ALDH6A1, SUCLG2</i>	0.011	0.874	12.38	55.43
	Tyrosine metabolism	<i>ASH2L</i>	0.014	0.876	11.00	46.78
<b>Breast invasive carcinoma</b>						
	Tryptophan metabolism	<i>AADAT, HAAO, KYNU</i>	0.001	0.383	14.14	94.62
	PPAR signaling pathway	<i>FABP6, FABP7, DBI</i>	0.006	0.963	8.03	40.74
	Arachidonic acid metabolism	<i>GGT1, ALOX15B</i>	0.040	> 0.99	6.29	20.17
<b>Colon adenocarcinoma</b>						
	Vitamin digestion and absorption	<i>SLC5A6, SCARB1, SLC23A1, SLC19A3</i>	<0.001	0.002	33.00	396.70
	Sulfur relay system	<i>NFS1, MOCS3</i>	0.001	0.107	49.50	360.11
	Fat digestion and absorption	<i>SCARB1, PLA2G12B, DGAT2</i>	0.001	0.119	14.49	97.95
	Renin-angiotensin system	<i>ACE2, AGT</i>	0.006	0.459	17.22	88.20
	Progesterone-mediated oocyte maturation	<i>RPS6KA3, RPS6KA6, AURKA</i>	0.014	0.851	6.00	25.69

Insulin resistance	<i>RPS6KA3, RPS6KA6, AGT</i>	0.017	0.894	5.50	22.28
Bladder cancer	<i>SRC, MYC</i>	0.018	0.802	9.66	38.69
Proteasome	<i>ADRM1, PSMA7</i>	0.022	0.836	8.80	33.71
Oocyte meiosis	<i>RPS6KA3, RPS6KA6, AURKA</i>	0.026	0.873	4.75	17.44
Cholesterol metabolism	<i>SCARB1, VAPB</i>	0.026	0.814	7.92	28.78
Central carbon metabolism in cancer	<i>PDHA1, MYC</i>	0.043	> 0.99	6.09	19.21
Cortisol synthesis and secretion	<i>SCARB1, AGT</i>	0.043	> 0.99	6.09	19.21
Acute myeloid leukemia	<i>CEBPA, MYC</i>	0.044	> 0.99	6.00	18.75
Long-term potentiation	<i>RPS6KA3, RPS6KA6</i>	0.045	0.993	5.91	18.31
<b>Prostate adenocarcinoma</b>					
Steroid hormone biosynthesis	<i>UGT1A1, AKR1C3, UGT1A6</i>	0.003	> 0.99	9.90	56.07
Ascorbate and aldarate metabolism	<i>UGT1A1, UGT1A6</i>	0.008	> 0.99	14.67	70.53
Pentose and glucuronate interconversions	<i>UGT1A1, UGT1A6</i>	0.013	> 0.99	11.65	50.81
Porphyrin and chlorophyll metabolism	<i>UGT1A1, UGT1A6</i>	0.019	> 0.99	9.43	37.34
Glycerolipid metabolism	<i>DGAT2, GK</i>	0.038	> 0.99	6.49	21.21
Arachidonic acid metabolism	<i>PLA2G16, AKR1C3</i>	0.040	> 0.99	6.29	20.17
Retinol metabolism	<i>UGT1A1, UGT1A6</i>	0.045	> 0.99	5.91	18.31
<b>Stomach adenocarcinoma</b>					
Fat digestion and absorption	<i>FABP1, MTP, APOA4</i>	0.001	0.337	14.78	100.78
Vitamin digestion and absorption	<i>RBP2, APOA4</i>	0.006	0.960	16.84	85.48

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<b>Liver hepatocellular carcinoma</b>					
Renin-angiotensin system	<i>ACE2, MME</i>	0.006	> 0.99	17.22	88.20
Amphetamine addiction	<i>MAOB, CAMK2A</i>	0.046	> 0.99	5.82	17.89

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ACE2, angiotensin-converting enzyme 2; KEGG, Kyoto Encyclopedia of Genes and Genomes.