

Figure S1 *SLC31A1* expression in the UALCAN and HPA databases. *, $P < 0.05$; ****, $P < 0.0001$. TCGA, The Cancer Genome Atlas; *SLC31A1*, solute carrier family 31 (copper transporter), member 1; KIRC, kidney renal clear cell carcinoma; LUSC, lung squamous cell carcinoma; PRAD, prostate adenocarcinoma; THCA, thyroid carcinoma; UALCAN, University of Alabama at Birmingham CANcer; HPA, Human Protein Atlas.

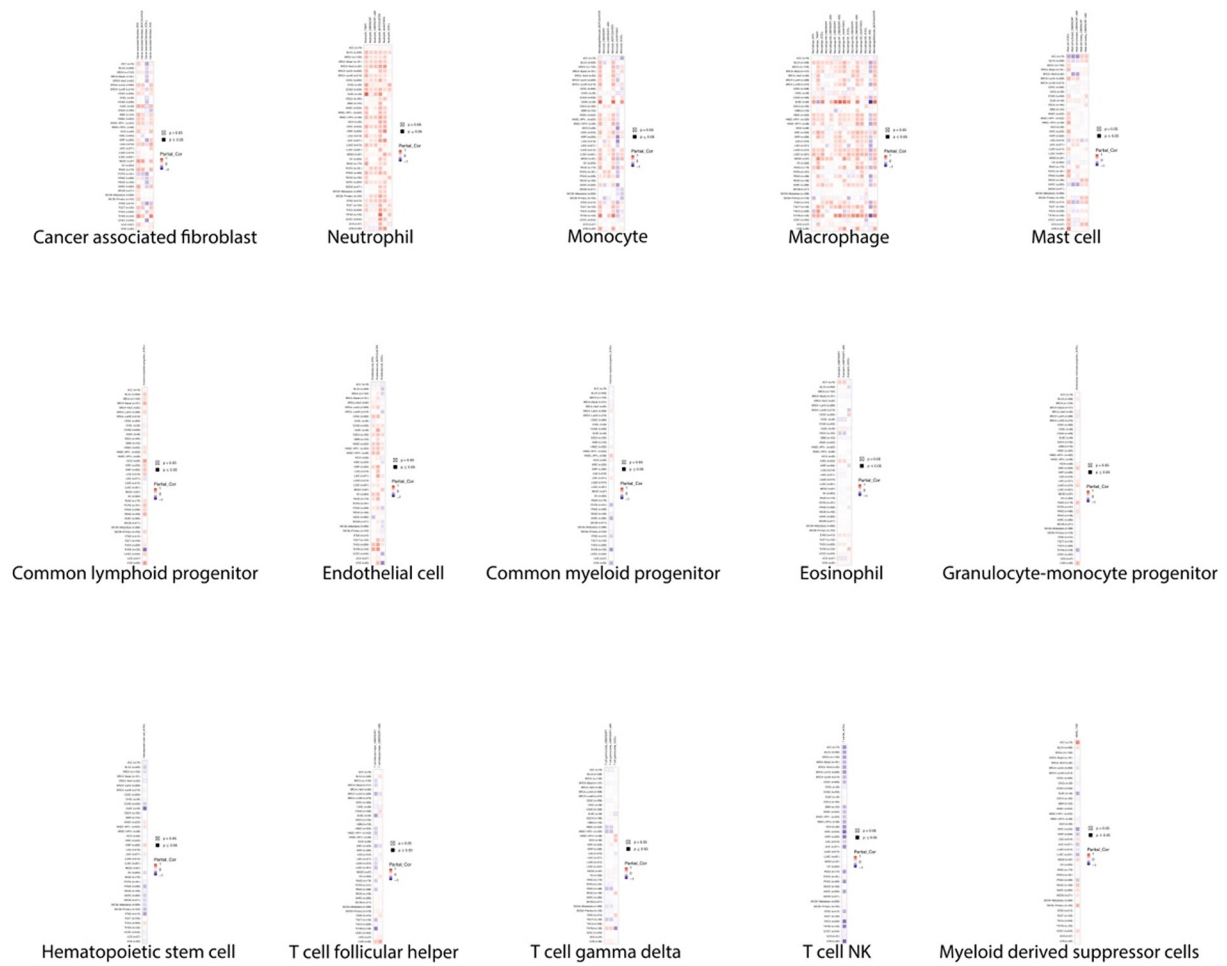


Figure S2 Correlation analysis of *SLC31A1* gene expression with multiple immune cells based on TIMER2.0 database. NK, natural killer; *SLC31A1*, solute carrier family 31 (copper transporter), member 1; TIMER, Tumor Immune Estimation Resource.

Table S1 Top 100 genes associated with SLC31A1 in the GEPIA 2.0 database

Gene symbol	Gene ID	PCC
CYB561	ENSG00000008283.15	0.54
CHGB	ENSG000000089199.9	0.53
EML5	ENSG00000165521.15	0.53
DBH	ENSG00000123454.10	0.52
PHOX2B	ENSG00000109132.6	0.51
TBX20	ENSG00000164532.10	0.5
SURF4	ENSG00000148248.13	0.5
SLC6A2	ENSG00000103546.18	0.49
RP11-269G24.4	ENSG00000265282.1	0.49
LINC00682	ENSG00000245870.2	0.49
GCH1	ENSG00000131979.18	0.49
MAB21L1	ENSG00000180660.7	0.49
CHGA	ENSG00000100604.12	0.48
CHRNA3	ENSG00000080644.15	0.48
TH	ENSG00000180176.14	0.48
RP11-415I12.2	ENSG00000255583.2	0.47
KCNG4	ENSG00000168418.7	0.47
HAND2-AS1	ENSG00000237125.8	0.47
CHRNA4	ENSG00000117971.11	0.47
C18orf42	ENSG00000231824.3	0.46
RIMBP2	ENSG00000060709.13	0.46
RP11-662M24.2	ENSG00000256725.1	0.46
DRD2	ENSG00000149295.13	0.46
HAND2	ENSG00000164107.8	0.45
RP11-561B11.6	ENSG00000259017.1	0.45
DDC	ENSG00000132437.17	0.45
SLC18A1	ENSG00000036565.14	0.45
TTC8	ENSG00000165533.18	0.45
PROKR1	ENSG00000169618.6	0.45
HTATSF1	ENSG00000102241.11	0.44
RP11-124O11.1	ENSG00000234944.1	0.44
RP11-481F24.3	ENSG00000278928.1	0.44
RP11-227F19.1	ENSG00000250467.1	0.43
DGKK	ENSG00000274588.1	0.43
SYT4	ENSG00000132872.11	0.43
TLX2	ENSG00000115297.10	0.43
SEZ6L2	ENSG00000174938.14	0.43
MRAP2	ENSG00000135324.5	0.43
OCRL	ENSG00000122126.15	0.43
CAMK4	ENSG00000152495.10	0.43
HACD3	ENSG00000074696.12	0.43
PTPRN2	ENSG00000155093.17	0.43
UBQLN1	ENSG00000135018.13	0.43
CFAP20	ENSG00000070761.7	0.43
SCG2	ENSG00000171951.4	0.42
SLC18A2	ENSG00000165646.11	0.42
RP11-976B16.1	ENSG00000274492.1	0.42
ERLEC1	ENSG00000068912.13	0.42
FAM163A	ENSG00000143340.6	0.42
ATP6V1G1	ENSG00000136888.6	0.42
L1CAM	ENSG00000198910.12	0.42
COG5	ENSG00000164597.13	0.41
PHOX2A	ENSG00000165462.5	0.41
CDK5R2	ENSG00000171450.5	0.41
DSTNP5	ENSG00000236681.1	0.41
TMX4	ENSG00000125827.8	0.41
RBM18	ENSG00000119446.13	0.41
DNAJC3	ENSG00000102580.14	0.4
RP11-429O1.1	ENSG00000263317.1	0.4
RP11-159N11.3	ENSG00000256757.1	0.4
RAB3C	ENSG00000152932.7	0.4
RP11-17A4.2	ENSG00000254254.5	0.4
JKAMP	ENSG00000050130.17	0.4
ALG2	ENSG00000119523.9	0.4
TMEM63C	ENSG00000165548.10	0.4
LL09NC01-254D11.1	ENSG00000261018.1	0.39
RET	ENSG00000165731.17	0.39
FAIM2	ENSG00000135472.8	0.39
G3BP2	ENSG00000138757.14	0.39
ARFGEF3	ENSG00000112379.8	0.39
GPR107	ENSG00000148358.19	0.39
FAM163B	ENSG00000196990.8	0.39
RP11-814P5.1	ENSG00000250007.6	0.39
SPOCK3	ENSG00000196104.10	0.39
CALM2	ENSG00000143933.16	0.39
YIPF6	ENSG00000181704.11	0.38
DRGX	ENSG00000165606.8	0.38
QDPR	ENSG00000151552.11	0.38
SLC35D3	ENSG00000182747.4	0.38
SAR1B	ENSG00000152700.13	0.38
HAND1	ENSG00000113196.2	0.38
PRLHR	ENSG00000119973.4	0.38
DNAJC25	ENSG00000059769.19	0.38
SHF	ENSG00000138606.19	0.38
CTC-340D7.1	ENSG00000249335.1	0.38
UMAD1	ENSG00000219545.9	0.38
TM9SF2	ENSG00000125304.8	0.38
RP5-967N21.2	ENSG00000215589.3	0.38
SHC1	ENSG00000160691.18	0.38
INSM2	ENSG00000168348.3	0.38
VPS33A	ENSG00000139719.9	0.38
BEGAIN	ENSG00000183092.15	0.38
RP11-475B2.1	ENSG00000261672.1	0.38
CELF3	ENSG00000159409.14	0.37
CHUK	ENSG00000213341.10	0.37
TNPO1	ENSG00000083312.17	0.37
RP11-12M5.3	ENSG00000229407.5	0.37
GPR22	ENSG00000172209.5	0.37
YIPF5	ENSG00000145817.16	0.37
INIP	ENSG00000148153.13	0.37

SLC31A1, solute carrier family 31 (copper transporter), member 1; GEPIA, Gene Expression Profiling Interactive Analysis; PCC, preclinical candidate compounds.