

Table S1 Cuproptosis-related genes

ID
<i>FDX1</i>
<i>LIPT1</i>
<i>LIAS</i>
<i>DLD</i>
<i>DBT</i>
<i>GCSH</i>
<i>DLST</i>
<i>DLAT</i>
<i>PDHA1</i>
<i>PDHB</i>
<i>SLC31A1</i>
<i>ATP7A</i>
<i>ATP7B</i>

Table S2 Primers used in this study

Gene	Forward/reverse primer	Sequence
<i>ATP7A</i>	F	CTGTACAGGGCAAACATCAG
	R	ACTGTGCTGCCAGGTTTCTT
<i>LIPT1</i>	F	GGGGTCGTATGACGCACTTT
	R	TGGGACCTGGCAGTTACAAA
<i>DLAT</i>	F	CTCCACAGGTCCTGGAATG
	R	TGCTTCTCCCTTCTAATATCTGG
<i>GAPDH</i>	F	GCACCGTCAAGGCTGAGAAC
	R	TGGTGAAGACGCCAGTGGA
<i>DLAT-shRNA</i>		CCACTCTGTATCATTGTAGAA

Table S3 Immune_checkpoint_genes

Immune_checkpoint_genes
<i>ADORA2A</i>
<i>BTLA</i>
<i>BTNL2</i>
<i>C10orf54</i>
<i>CD160</i>
<i>CD200</i>
<i>CD200R1</i>
<i>CD244</i>

Table S3 (continued)

Table S3 (continued)

Immune_checkpoint_genes
<i>CD27</i>
<i>CD274</i>
<i>CD276</i>
<i>CD28</i>
<i>CD40</i>
<i>CD40LG</i>
<i>CD44</i>
<i>CD48</i>
<i>CD70</i>
<i>CD80</i>
<i>CD86</i>
<i>CTLA4</i>
<i>HAVCR2</i>
<i>HHLA2</i>
<i>ICOS</i>
<i>ICOSLG</i>
<i>IDO1</i>
<i>IDO2</i>
<i>KIR3DL1</i>
<i>LAG3</i>
<i>LAIR1</i>
<i>LGALS9</i>
<i>NRP1</i>
<i>PDCD1</i>
<i>PDCD1LG2</i>
<i>TIGIT</i>
<i>TMIGD2</i>
<i>TNFRSF14</i>
<i>TNFRSF18</i>
<i>TNFRSF25</i>
<i>TNFRSF4</i>
<i>TNFRSF8</i>
<i>TNFRSF9</i>
<i>TNFSF14</i>
<i>TNFSF15</i>
<i>TNFSF18</i>
<i>TNFSF4</i>
<i>TNFSF9</i>
<i>VTCN1</i>

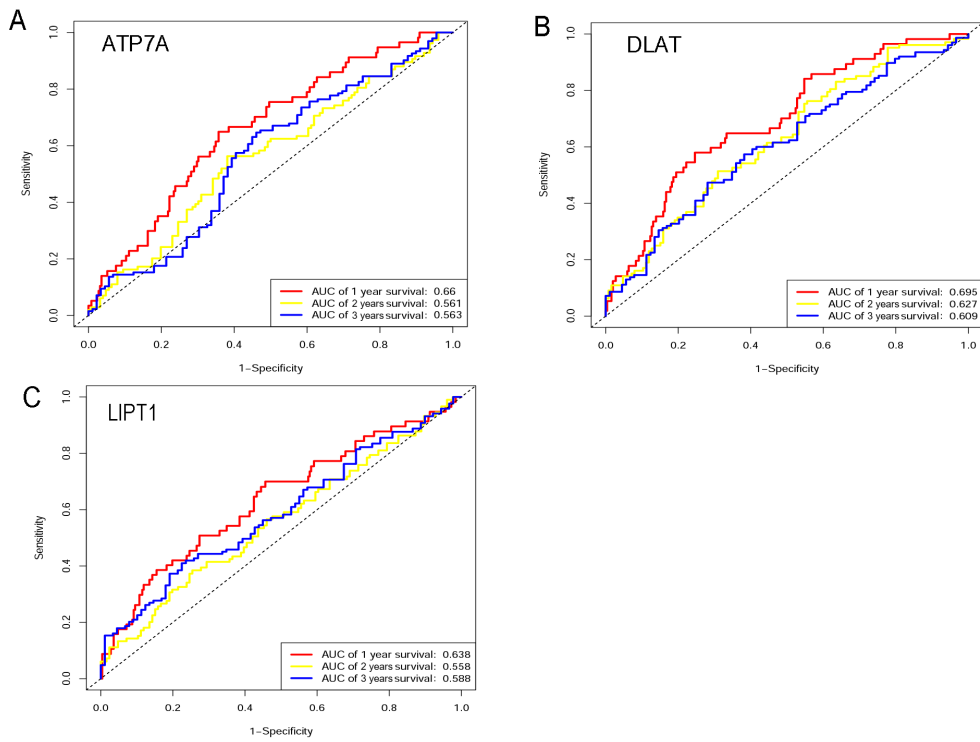


Figure S1 AUC curve of *ATP7A*, *DLAT*, and *LIPT1*. AUC, area under the curve.

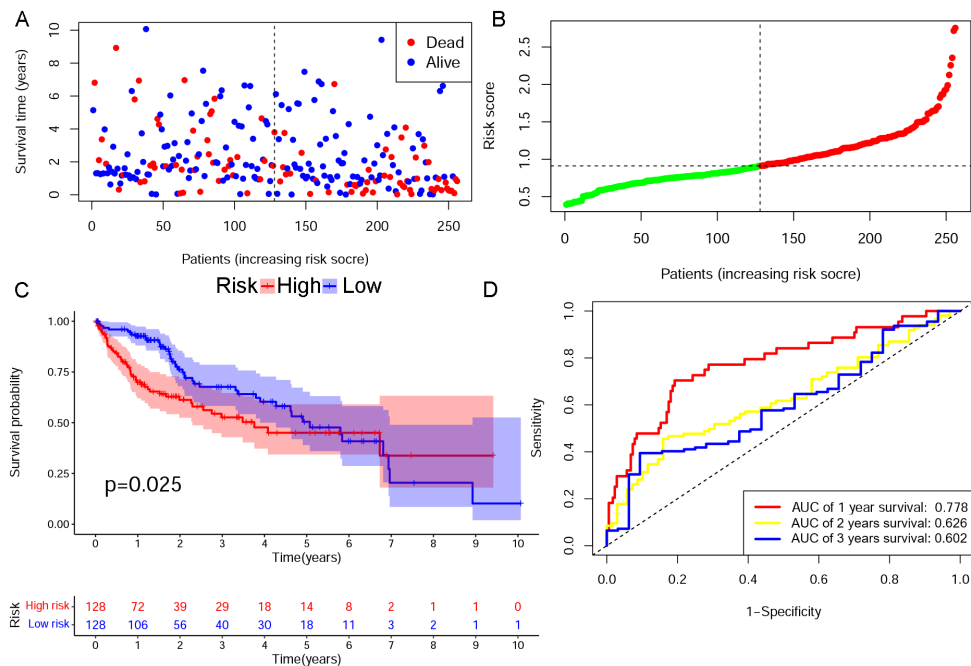


Figure S2 Validation of the risk model with GEO dataset. Green dots: these are located on the left side of the graph and represent patients with lower risk scores; Red dots: these are on the right side of the graph and represent patients with higher risk scores. GEO, Gene Expression Omnibus; AUC, area under the curve.

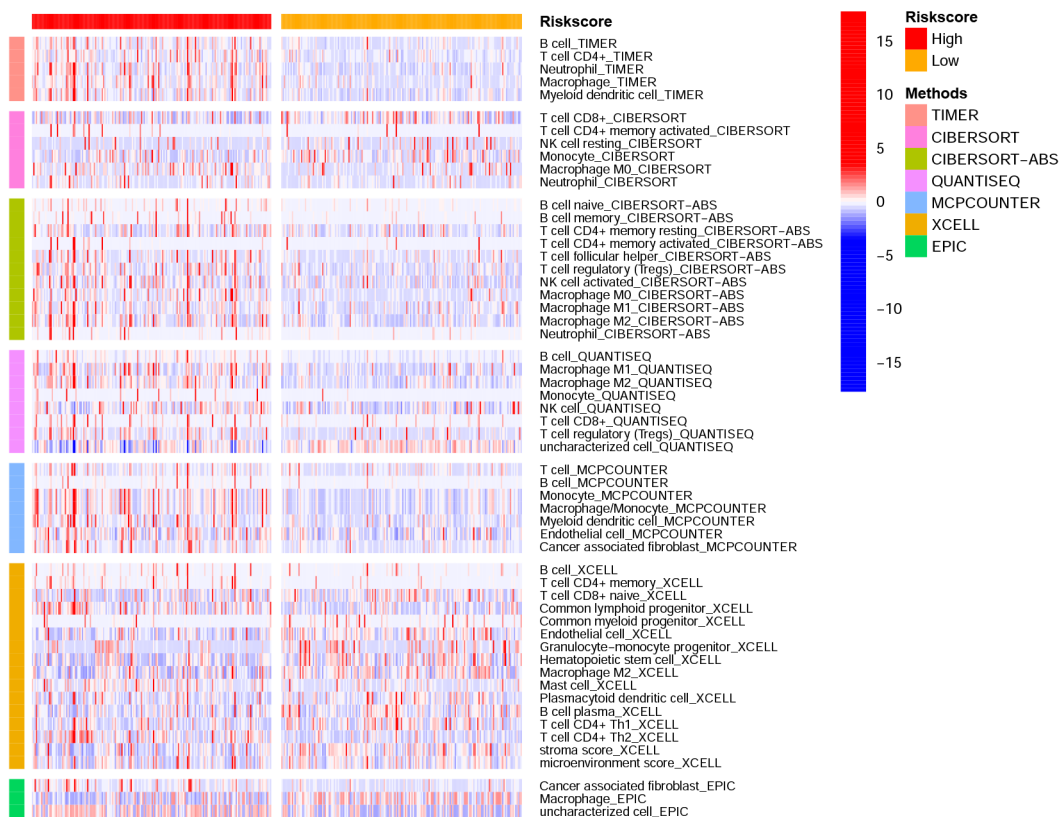


Figure S3 Immune cells infiltration between high-risk groups and low-risk groups.

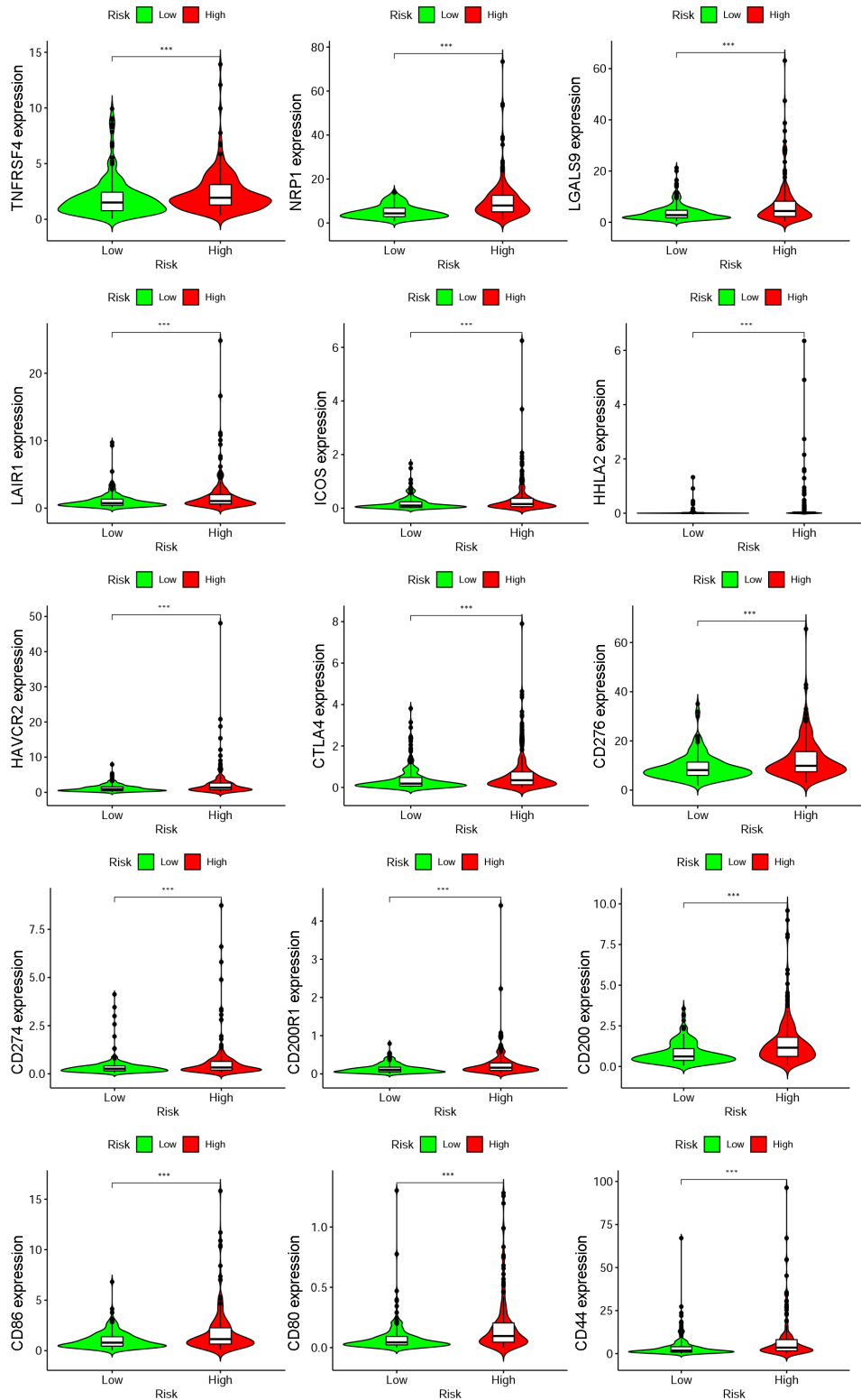


Figure S4 The relationship between prognostic signature and immune checkpoints. ***, $P < 0.001$. NRP1, Neuropilin 1; LGALS9, Galectin 9; LAIR1, Leukocyte Associated Immunoglobulin Like Receptor 1; ICOS, Inducible T Cell Costimulator; HHLA2, HERV-H LTR-Associating 2; HAVCR2, Hepatitis A Virus Cellular Receptor 2; CTLA4, Cytotoxic T Lymphocyte Associated Protein 4.