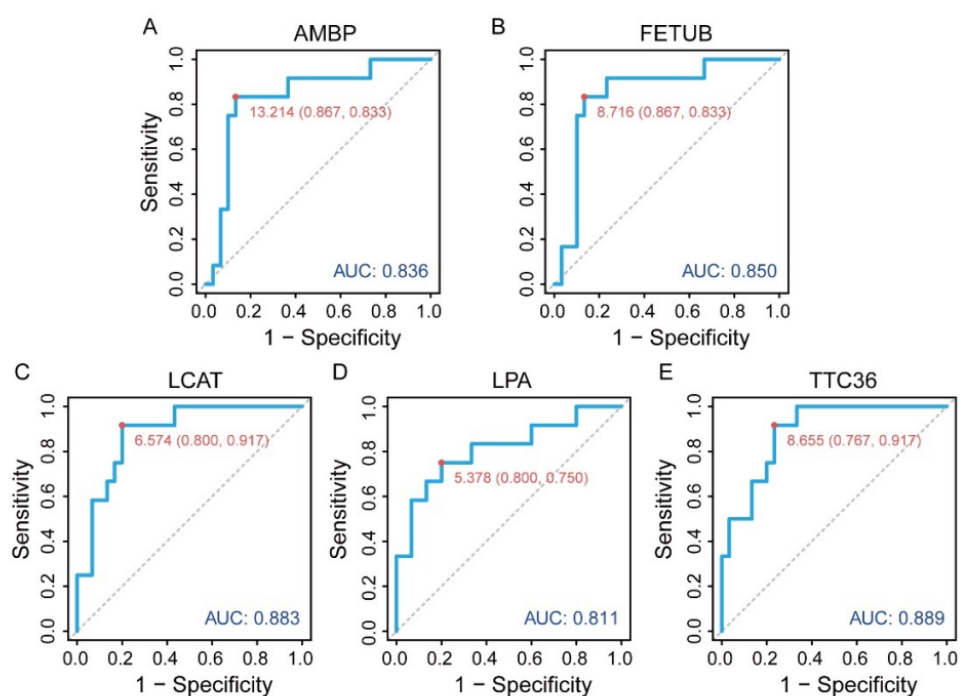
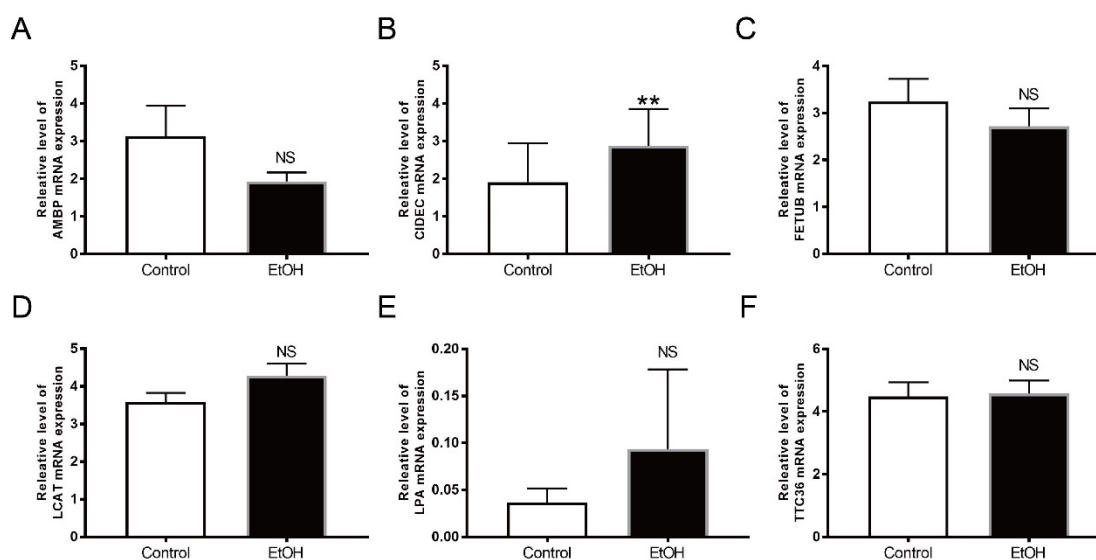


## Supplement Figures



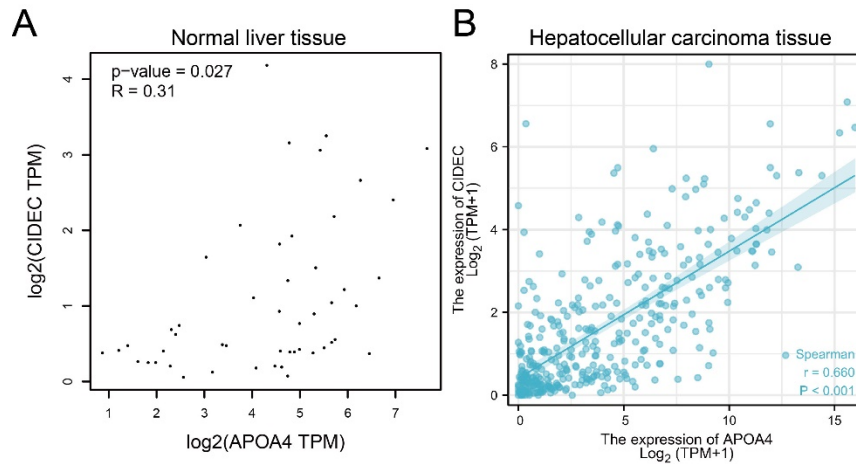
**Supplementary Figure S1. The ROC curves of five hub genes.**

(A) *AMBP*, (B) *FETUB*, (C) *LCAT*, (D) *LPA*, and (E) *TTC36* in the ArrayExpress cohort.



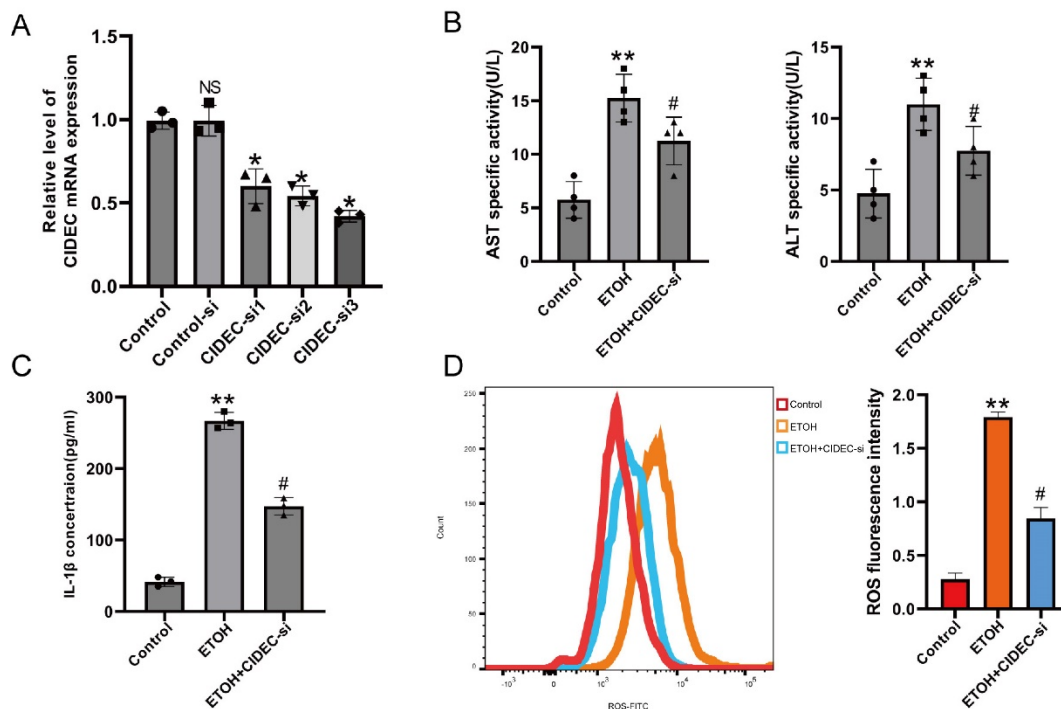
**Supplementary Figure S2. Expression of AMBP, CIDEC, FETUB, LCAT, LPA, and TTC36 in AH and normal liver tissues in mice.**

(A) *AMBP*, (B) *CIDEC*, (C) *FETUB*, (D) *LCAT*, (E) *LPA*, and (F) *TTC36*. \*\* $P < 0.01$  vs. the control group



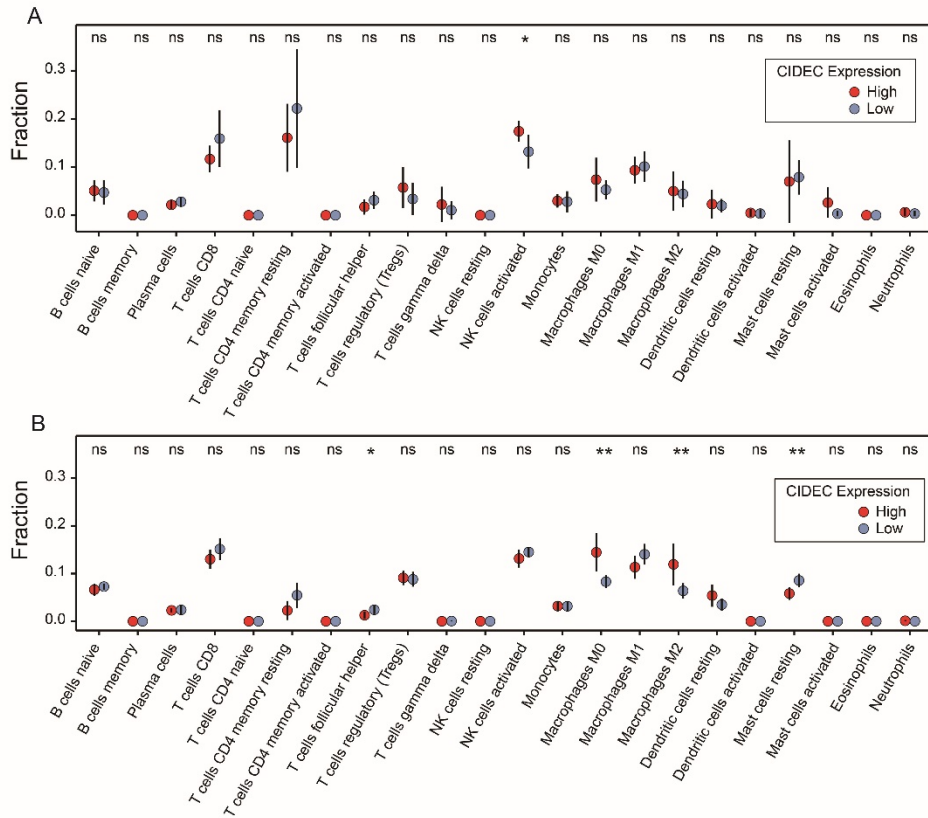
**Supplementary Figure S3. Correlation between *APOA4* and *CIDEA* in normal liver tissue and hepatocellular carcinoma.**

(A) Correlation between *APOA4* and *CIDEA* in normal liver tissue, based on GEPIA datasets, (B) Correlation between *APOA4* and *CIDEA* in hepatocellular carcinoma tissue, based on TCGA datasets.



**Supplementary Figure S4. CIDEA knockdown inhibited cell injury in ETOH-treated AML-12 cells.**

(A) AML-12 cells were transfected with CIDEA siRNA or control siRNA for 48 h. The expression of CIDEA was determined with qRT-PCR ( $n = 3$ ). (B) The AST and ALT activity in AML-12 cells after treatment with CIDEA-si stimulated by with/without ETOH. (C) The activity of IL-1 $\beta$  detected by ELISA kit. (D) ROS fluorescence intensity was detected by flow cytometry. ( $n = 3$ ) \* $P < 0.05$ , \*\* $P < 0.01$  vs the control group; # $P < 0.05$  vs the ETOH group or  $^{NS}P > 0.05$  vs the Control group.



**Supplementary Figure S5. The proportion of 22 subpopulations of immune infiltrating cells in normal liver tissues and AH tissues was connected with *CIDEc*.**

(A) Correlation of *CIDEc* and immune infiltrating cells in normal liver tissue because of Cibersort. (B) *CIDEc* and immune infiltrating cells in AH tissue correlate, based on Cibersort. \* $P < 0.05$ , \*\* $P < 0.01$  vs the high group.