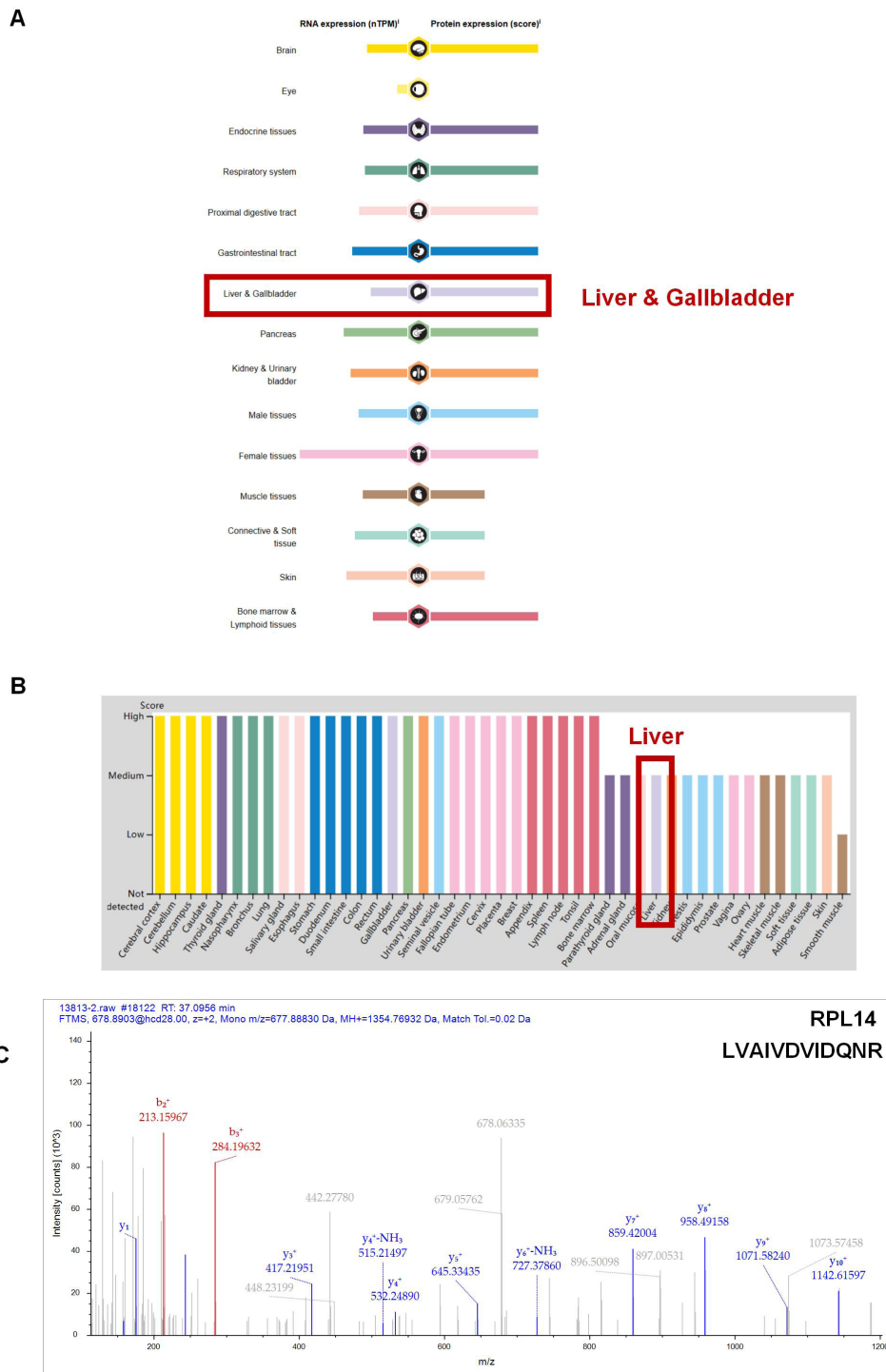
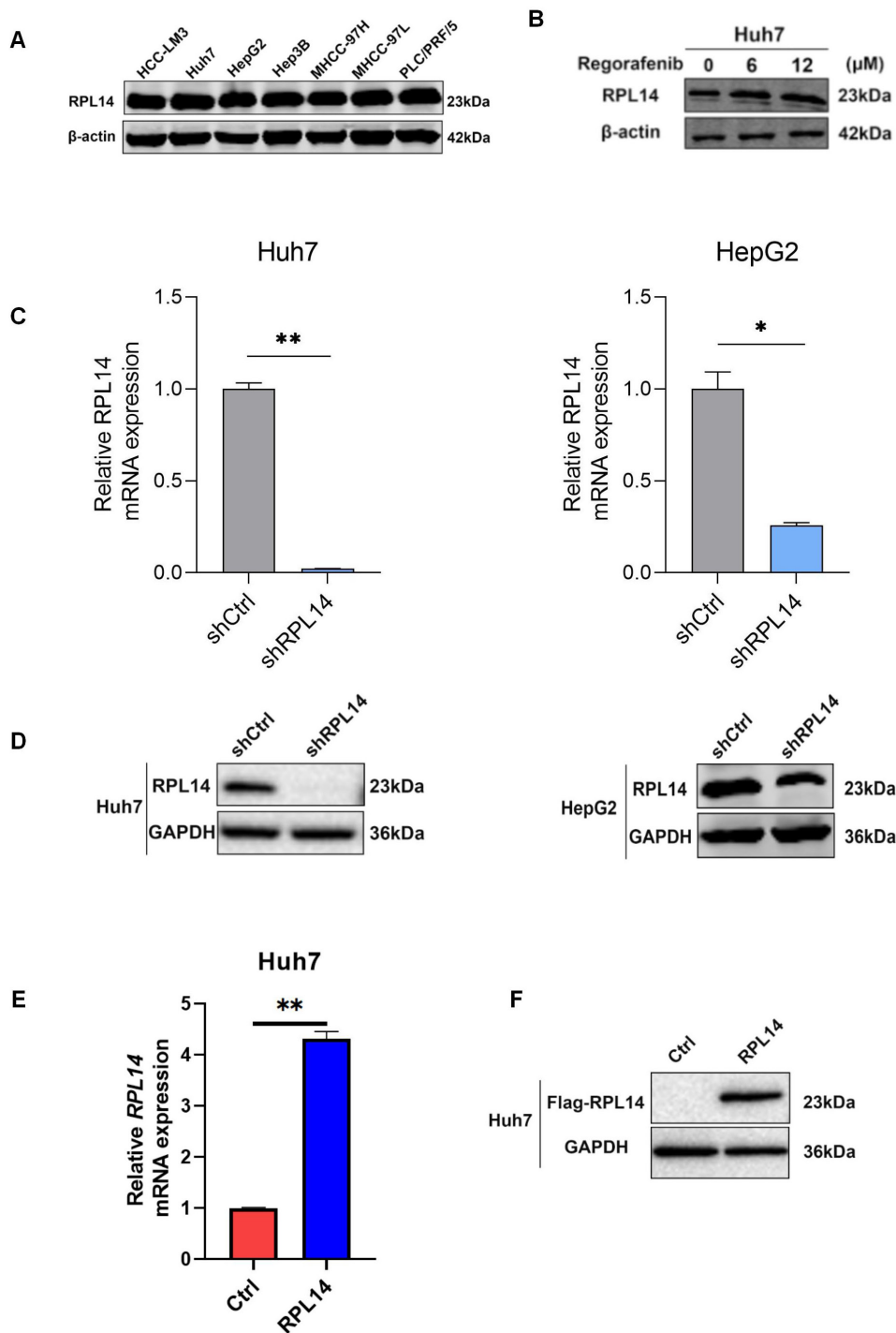


**Figure S1** Construction of Huh7-PRMT5 stable transducer strain and expression analysis after regorafenib treatment. (A) CCK8 assay of Huh7 proliferative activity at different regorafenib concentrations in combination with the PRMT5 inhibitor EPZ015666 (5 μM). (B) WB detection of protein expression in Huh7-PRMT5 cells. (C) qPCR detection of mRNA expression in Huh7-PRMT5 cells. (D) Correlation coefficient diagram. (E) Transcript violin distribution map. (F) TCGA database to detect RPL14 expression in HCC. (G) Comparison of differences between Huh7-PRMT5 and Huh7 Ctrl ( $P < 0.05$  for screening conditions). (H) Enrichment analysis of differentially expressed genes. Data in the graphs are expressed as mean  $\pm$  standard deviation. \*,  $P < 0.05$ ; \*\*,  $P < 0.01$ ; \*\*\*,  $P < 0.001$ . WB, western blot; qPCR, quantitative real-time PCR; CCK8, cell counting kit-8; HCC, hepatocellular carcinoma.



**Figure S2** Human Protein Atlas database to analyze RPL14 expression and detect PRMT5-RPL14 interaction. (A) Human Protein Atlas database to analyze RPL14 protein expression in normal liver. (link:<https://www.proteinatlas.org/ENSG00000188846-RPL14/tissue>). (B) Human Protein Atlas database to analyze mRNA expression of RPL14 in normal liver. (link:<https://www.proteinatlas.org/ENSG00000188846-RPL14/tissue>). (C) LC-MS/MS to detect the interaction of PRMT5 with RPL14, with three replicates in each group. LC-MS, liquid chromatography-tandem mass spectrometry.



**Figure S3** Detection of protein and mRNA expression levels of RPL14 in different HCC cells. (A) Protein expression levels of RPL14 in different HCC cells. (B) WB detection of RPL14 expression after prolonged treatment of Huh7 cells with regorafenib. (C) qPCR detection of mRNA expression after knockdown of RPL14 in Huh7 and HepG2 cells. (D) WB detection of protein expression after knockdown of RPL14 in Huh7 and HepG2 cells. (E) qPCR detection of mRNA expression after overexpression of RPL14 in Huh7 cells. (F) WB detection of protein expression after overexpression of RPL14 in Huh7 cells. \*,  $P < 0.05$ ; \*\*,  $P < 0.01$ . HCC, hepatocellular carcinoma; WB, western blot; qPCR, quantitative real-time PCR.