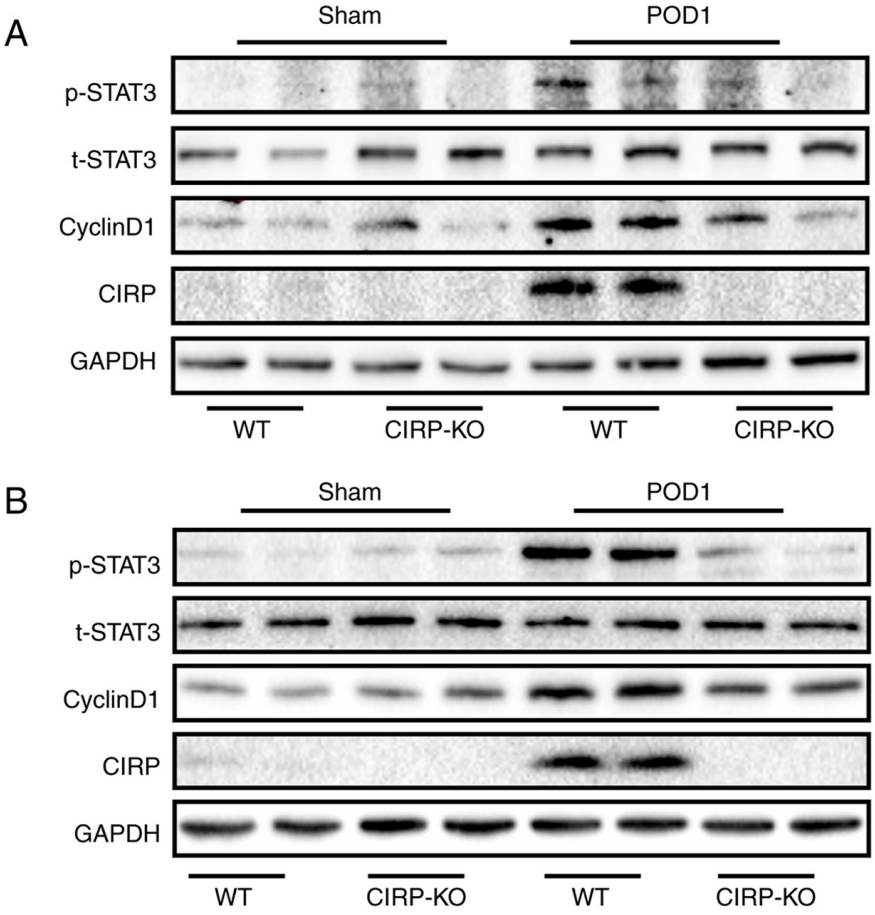
Figure S1. CIRP deficiency restrains liver regeneration after partial hepatectomy in mice. Western blotting analysis of p-STAT3, Cyclin D1 and CIRP expression in WT and CIRP-KO mice livers at (A) 1 and (B) 7 days after partial hepatectomy. GAPDH was used as the loading control. (C) Hematoxylin and eosin staining of sections from WT and CIRP-KO mice livers at 1, 3 and 7 days after partial hepatectomy. POD, postoperative day; WT, wild-type; KO, knockout. CIRP, cold-inducible RNA-binding protein; p-, phosphorylated; t-, total; STAT3, signal transducers and activation of transcription 3.



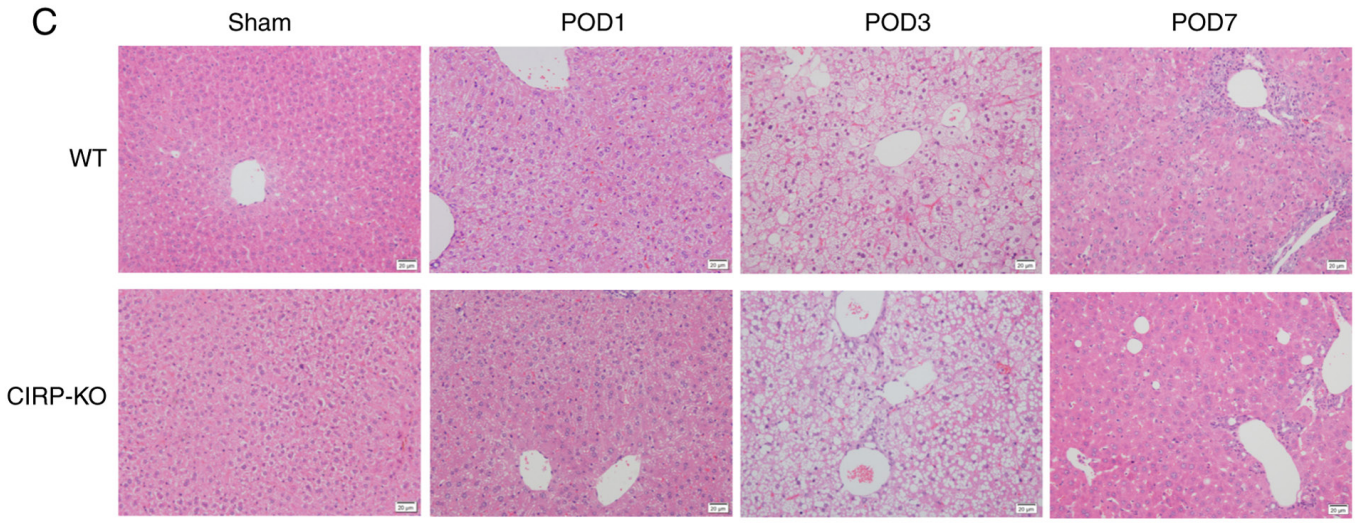


Figure S2. CIRP deficiency alleviates liver inflammatory cell infiltration after partial hepatectomy in mice. Immunohistochemical staining for (A) F4/80, (B) CD68 and (C) CD11b in sections from WT and CIRP-KO mice livers at 1, 3 and 7 days after partial hepatectomy, (D-F) which were semi-quantified. n=6. *P<0.05, **P<0.01, ***P<0.001 compared with sham mice. CIRP, cold-inducible RNA-binding protein; ns, no significant; POD, postoperative day; WT, wild-type; KO, knockout.

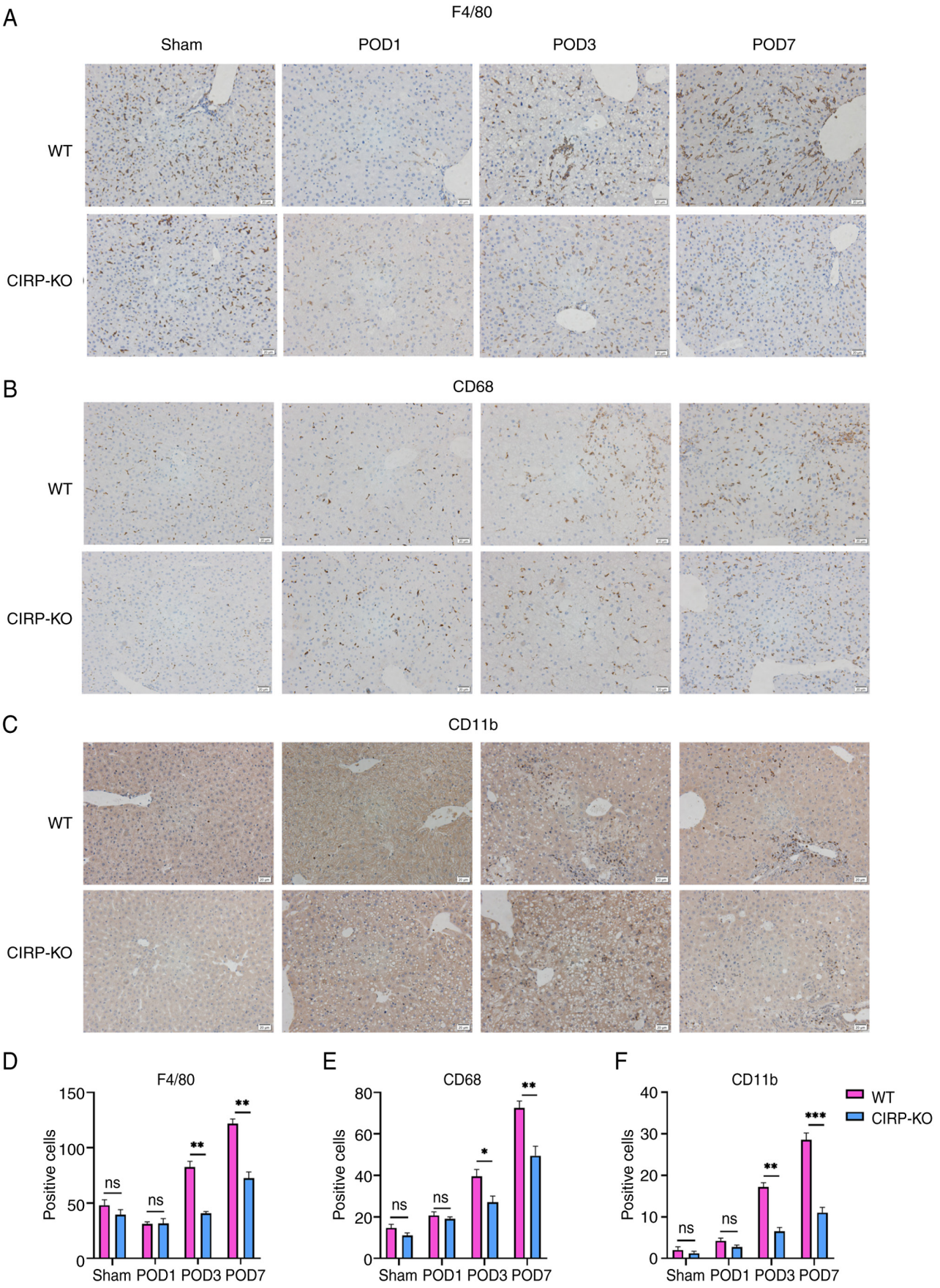


Figure S3. CIRP deficiency alleviates liver inflammatory cell infiltration after partial hepatectomy in mice. Immunohistochemical staining of (A) MPO and (B) CD20 in sections from WT and CIRP-KO mice livers at 1, 3 and 7 days after partial hepatectomy, (C and D) which were semi-quantified. n=6. *P<0.05, **P<0.01 compared with sham mice. CIRP, cold-inducible RNA-binding protein; ns, no significant; POD, postoperative day; WT, wild-type; KO, knockout; MPO, myeloperoxidase.

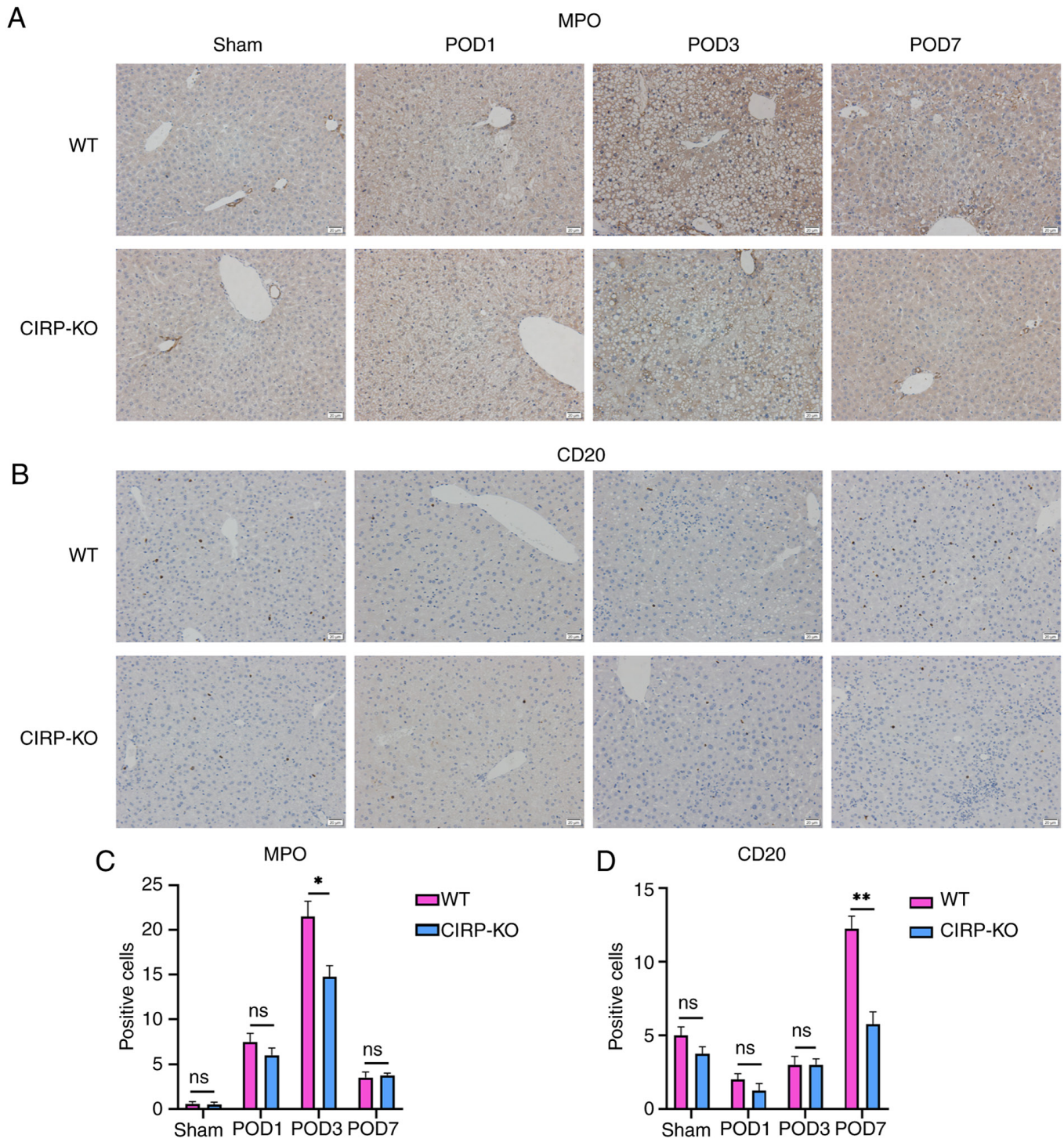


Figure S4. Effects of CIRP on the cell cycle phase distribution of HepG2 cells. (A) The cell cycle distribution was analyzed by flow cytometry. (B) The percentage of cell populations in the G0/G1, S and G2/M phases. n=3. ***P<0.001 compared with NC group. CIRP, cold-inducible RNA-binding protein; NC, negative control; TG, transgenic.

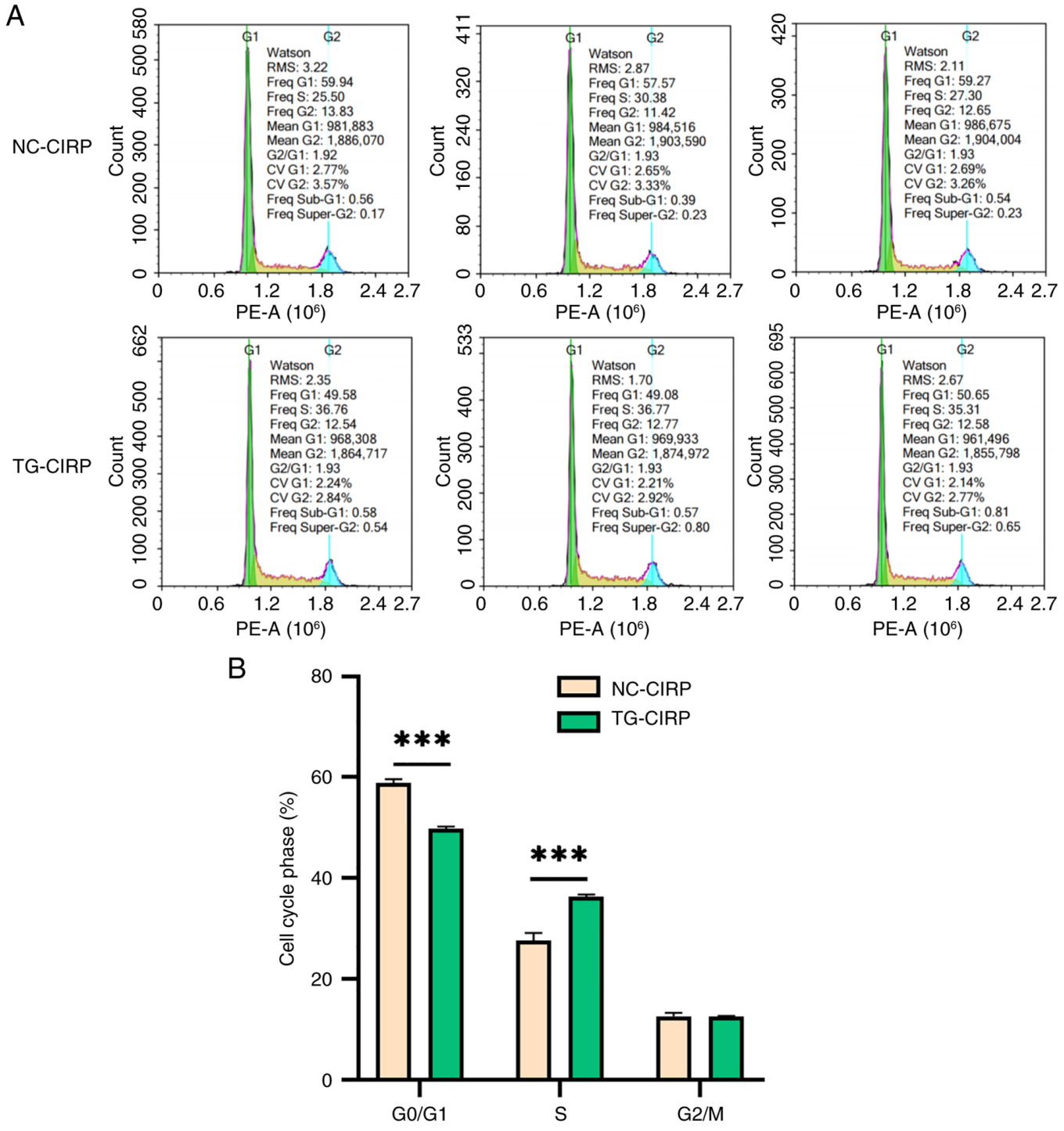


Figure S5. Intracellular CIRP has no effect on endoplasmic reticulum stress in hepatocytes. Western blotting analysis of BIP, p-IRE1α, XBP1s, PDI and BAX in CIRP TG and control HepG2 cells. β-actin was used as the loading control. CIRP, cold-inducible RNA-binding protein; NC, negative control; TG, transgenic; p-, phosphorylated; t-, total; IRE1α, inositol-requiring enzyme 1 α; BIP, immunoglobulin heavy-chain-binding protein; XBPs, X-box binding proteins; PDI, protein disulfide isomerase.