

Supplementary figure legends

Figure S1. CHAF1B expression is elevated in HCC and associated with poor clinical outcomes. (A) HCC datasets from the TCGA dataset showed an increase of CHAF1B mRNA in HCC samples. (B) The mRNA levels of CHAF1B in 44 pairs of HCC and adjacent non-tumor tissues from the TCGA dataset. (C) Subgroup analysis of the TCGA-LIHC cohort exhibited higher mRNA expression levels of CHAF1B in HCC patients with worse histological differentiation grades.

Figure S2. Confirmation of stable CHAF1B-overexpression or CHAF1B-knockdown HCC cell lines. (A and B) CHAF1B expression in HCC cells (Huh7 and HepG2) stably transduced with lentivirus was assessed by RT-qPCR. (C) Immunofluorescence confirmed the efficiencies of CHAF1B knockdown in Huh7 cells. (D) Immunofluorescence confirmed the efficiencies of CHAF1B overexpression in Huh7 cells. (E) Immunofluorescence confirmed the efficiencies of CHAF1B knockdown in HepG2 cells. (F) Immunofluorescence confirmed the efficiencies of CHAF1B overexpression in HepG2 cells.

Figure S3. Transcriptome sequencing result of HepG2 stable CHAF1B-overexpression or CHAF1B-knockdown cell lines. (A) Bar plot of DEGs in HepG2 cell lines (OE-CHAF1B vs. OE-NC, shCHAF1B vs. sh-NC). (B) Principal component analysis of HepG2 cells with/without knockdown of CHAF1B. (C) Volcano plot of DEGs in HepG2 cells with/without knockdown of CHAF1B. (D)

23 Principal component analysis of HepG2 cells with/without overexpressing CHAF1B.
24 (E) Volcano plot of DEGs in HepG2 cells with/without overexpressing CHAF1B.
25
26 **Figure S4.** Confirmation of efficiencies of PI3K/Akt/HIF-1 α specific inhibitors. (A, C
27 and E) Dose-dependent effects of BKM120 (A), MK2206 (C), or LW6(E) on the
28 viability of HepG2. (B) Western blot analysis shows the effect of PI3K inhibitor
29 BKM120 on the levels of p-PI3K proteins. (D) Western blot analysis shows the effect
30 of Akt inhibitor MK2206 on the levels of p-Akt (Ser473) proteins. (F) Western blot
31 analysis shows the effect of HIF-1 α inhibitor LW6 on the levels of HIF-1 α proteins.

Figure S1

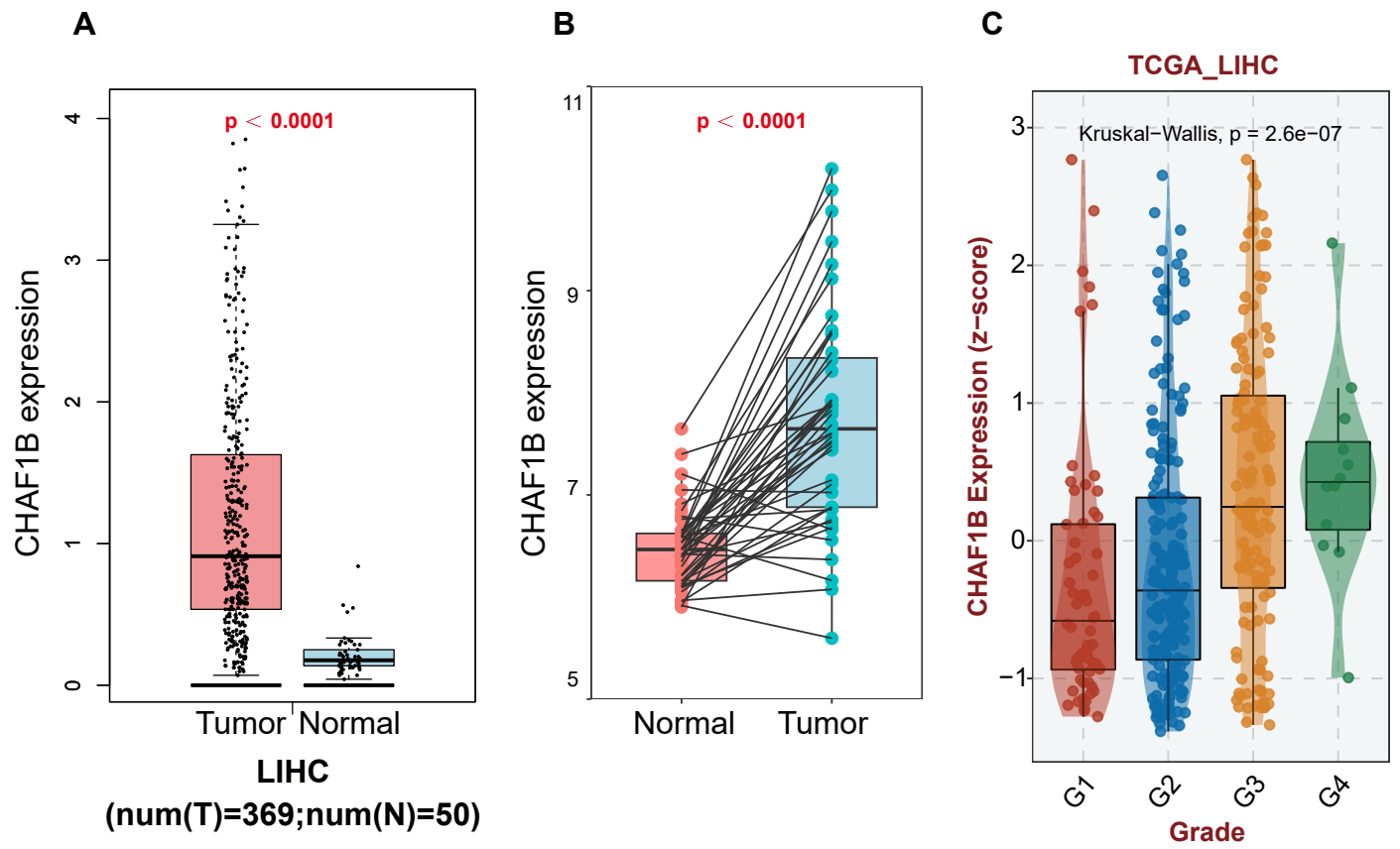
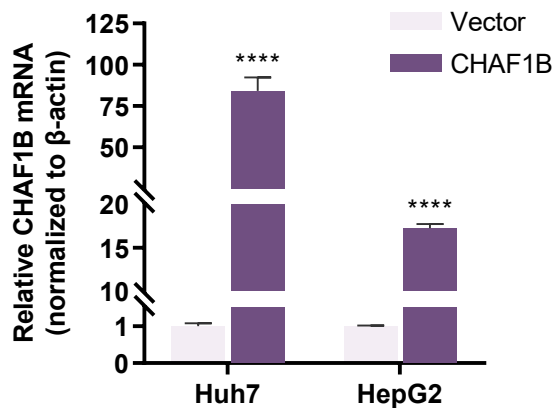
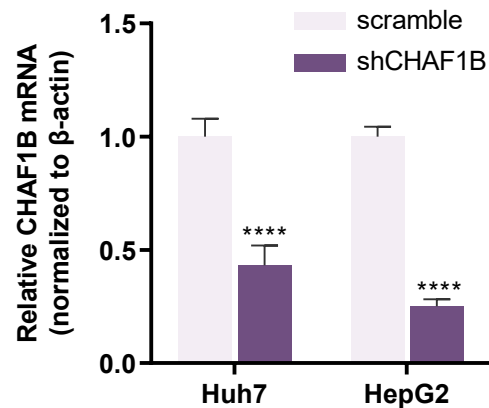


Figure S2

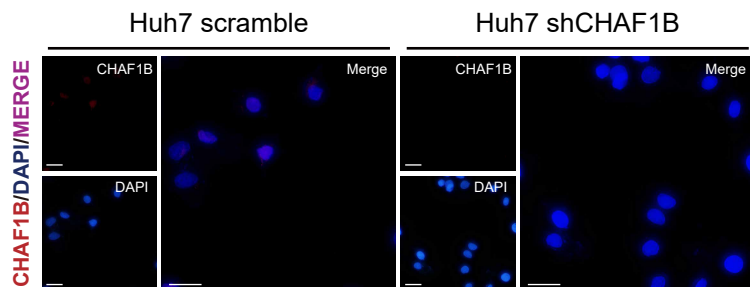
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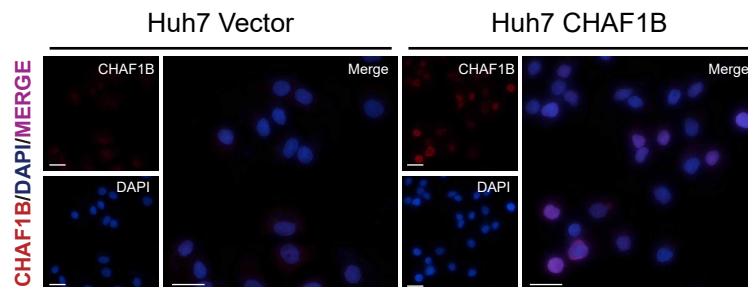
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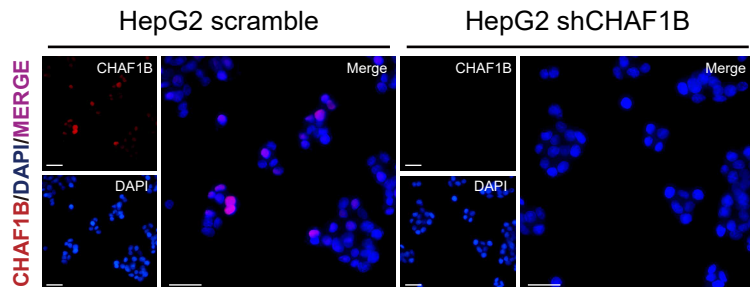
C



D



E



F

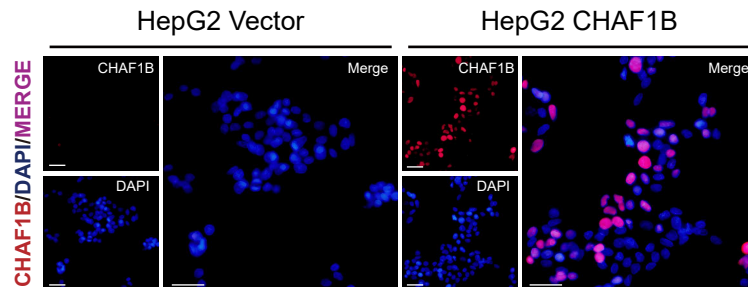


Figure S3

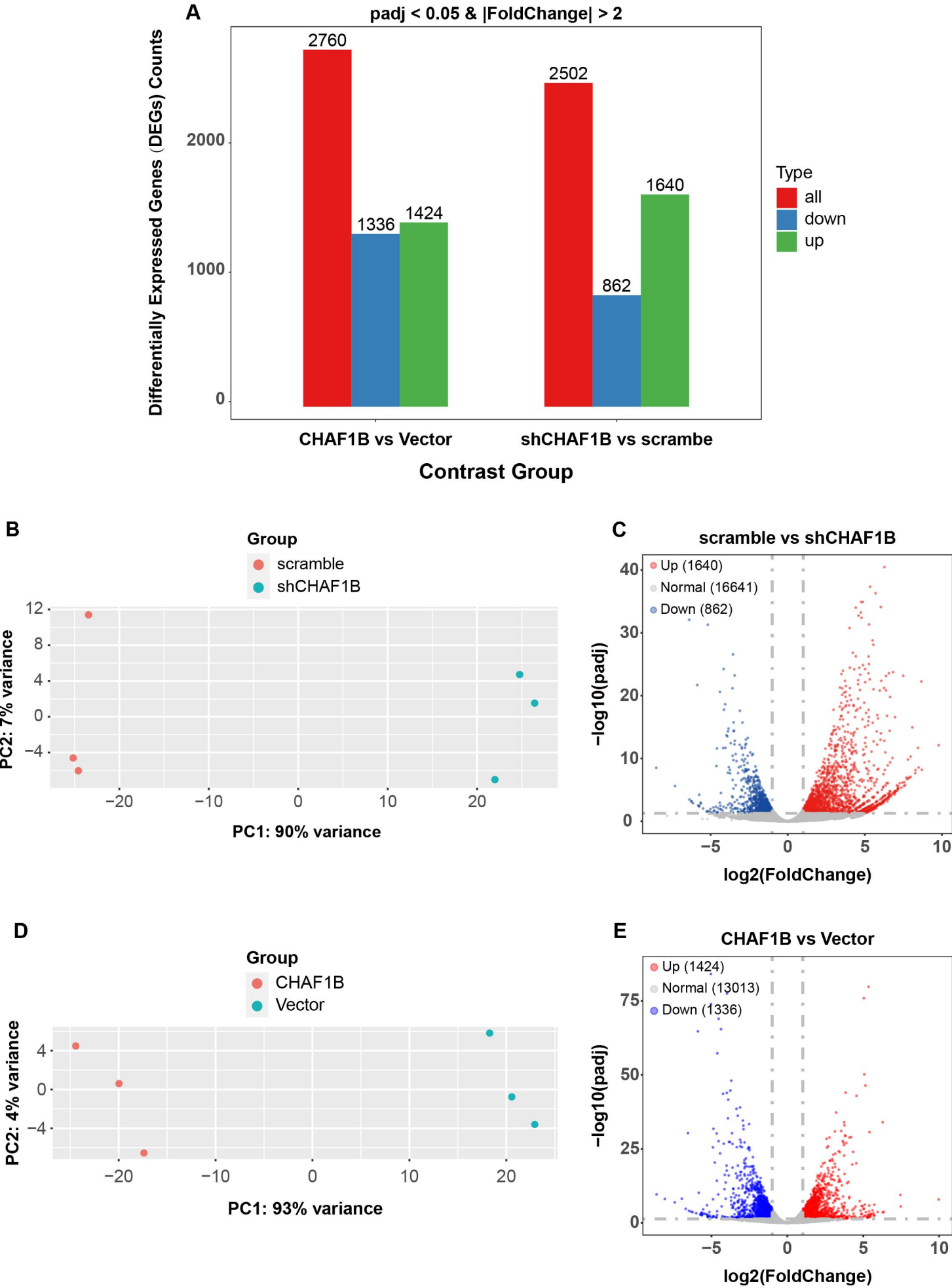


Figure S4