

Figure S1. Mesenchymal genes expression in 2D co-cultures. (A and B) Relative mRNA expression in Huh7 cells in presence of control medium and VEGF in 2D models (A) CDH2 (B) THY-1. *P<0.05 and **P<0.01 vs. Huh-Ct. CDH1, cadherin 1 (E-cadherin); THY-1, Thy-1 cell surface antigen.

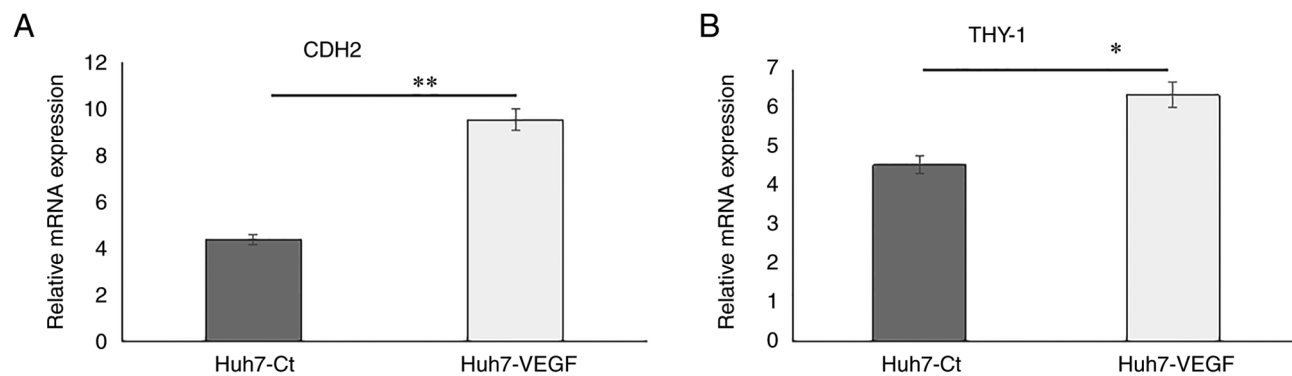


Figure S2. EMT and cancer stemness gene expression in 2D co-cultures. Relative mRNA expression of (A) CDH1 (B) VIM (C) CD133 (D) CDH2 (E) THY-1 in HepG2 cells in the presence of control medium and VEGF in 2D models. * $P < 0.05$ and ** $P < 0.01$ vs. HepG2-Ct. Ct, control; CDH1, cadherin 1 (E-cadherin); VIM, vimentin; THY-1, Thy-1 cell surface antigen; CDH2, cadherin 2 (N-cadherin).

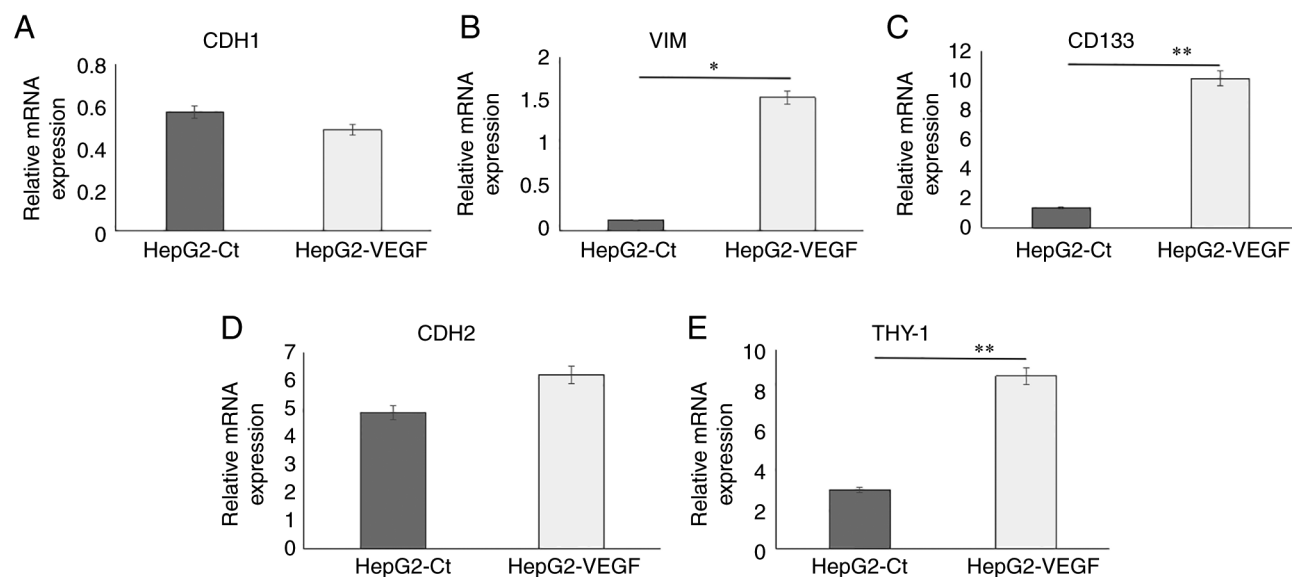


Figure S3. EMT and cancer stemness gene expression in 3D co-culture. Relative mRNA expression of (A) CDH2 (B) THY-1 in Huh7 cells in presence of control medium and VEGF. * $P < 0.05$ and ** $P < 0.01$ vs. Huh7-Ct. CDH2, cadherin 2 (N-cadherin); THY-1, Thy-1 cell surface antigen; CT, control; VEGF, vascular endothelial growth factor.

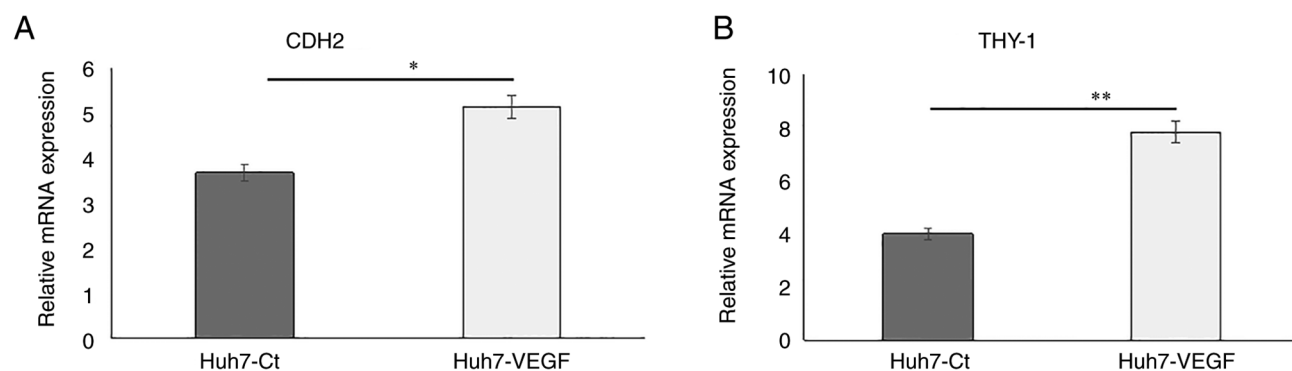


Figure S4. Mesenchymal protein expression and assessment in 2D co-cultures. (A) Image of DAPI staining of Huh7-Ct cells. (B) DAPI staining image of Huh7-Ct cells after ImageJ analysis to calculate number of fluorescent cells. (C) Bar chart presenting VIM-positive cells in 2D culture in the absence and presence of VEGF. ** $P < 0.01$. Ct, control; VIM, vimentin; VEGF, vascular endothelial growth factor.

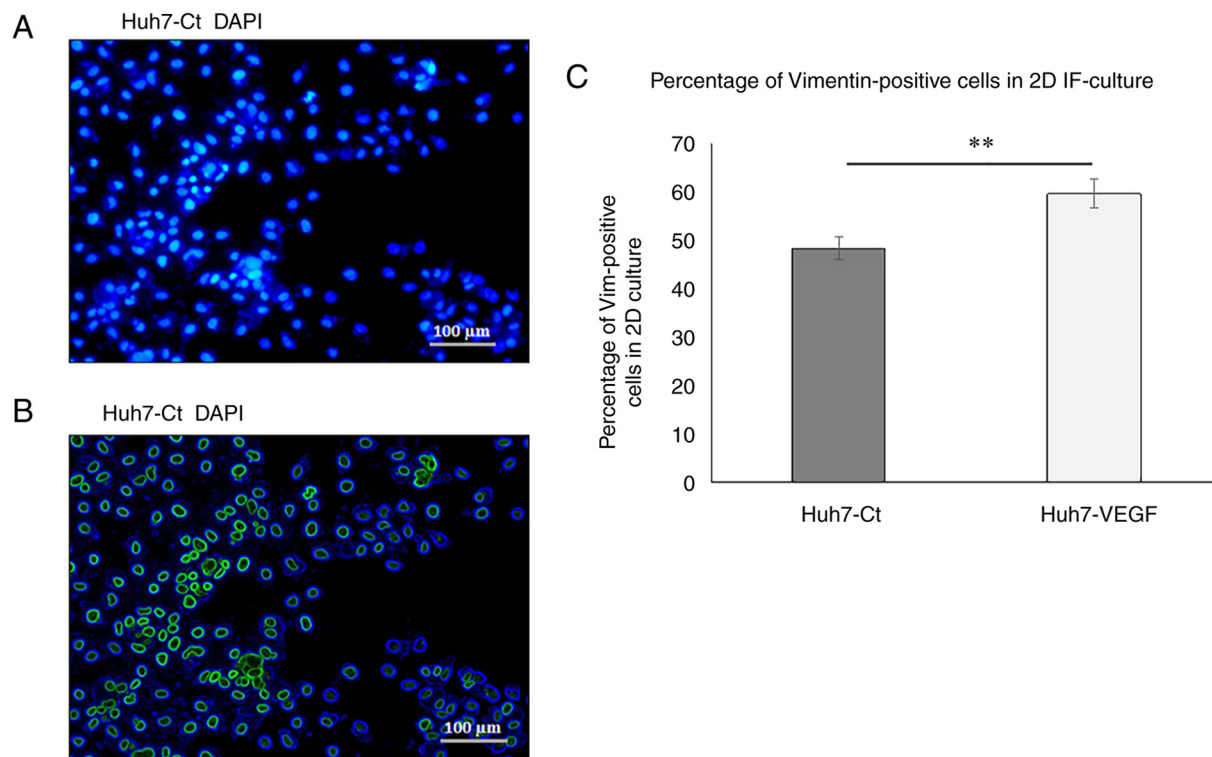


Figure S5. Proliferation assay in 2D co-culture after treatment with sorafenib. (A) Phase contrast images showing morphology of Huh7 cells following treatment with sorafenib in the presence of control medium or VEGF (magnification, x10). (B) Bar chart depicting the results of MTT assay at an OD of 570 nm in Huh7 cells (control), Huh7 cells induced with VEGF and Huh7 cells treated with VEGF and sorafenib after 24 h. * $P < 0.05$ and ** $P < 0.01$. Ct, control; VEGF, vascular endothelial growth factor.

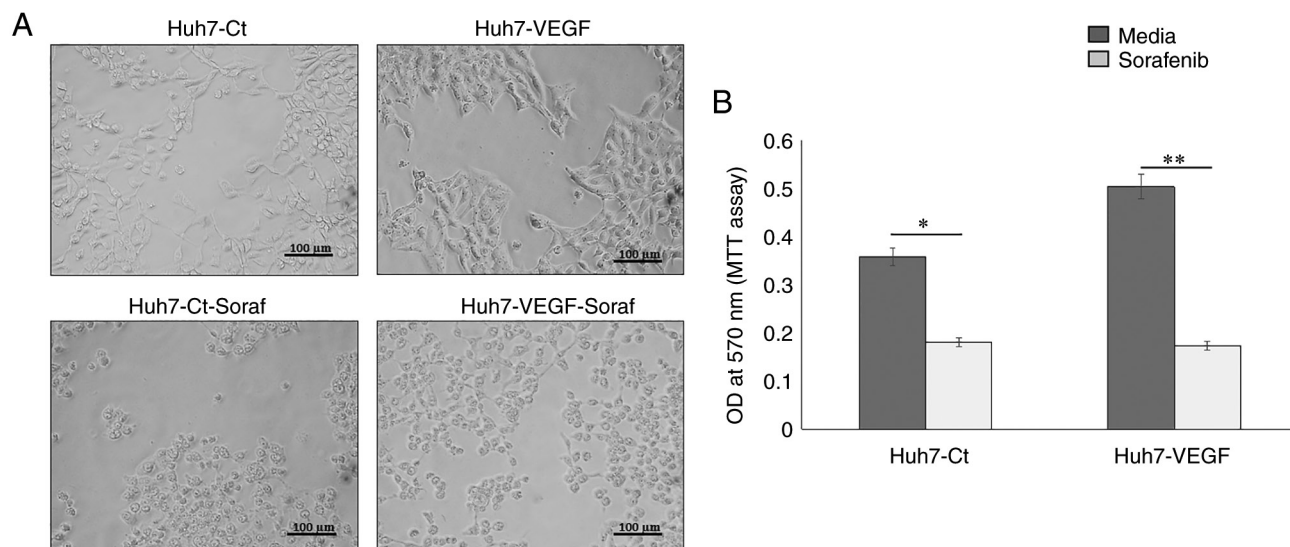


Figure S6. EMT and cancer stemness gene expression in 2D and 3D co-cultures. Relative mRNA expression of (A) CDH1 (B) VIM (C) CDH2 and (D) CD133 expression in Huh7 cells induced with VEGF and Huh7-VEGF treated with sorafenib after 24 h. * $P < 0.05$, ** $P < 0.01$. CDH1, cadherin 1 (E-cadherin); VIM, vimentin; CDH2, cadherin 2 (N-cadherin); VEGF, vascular endothelial growth factor.

