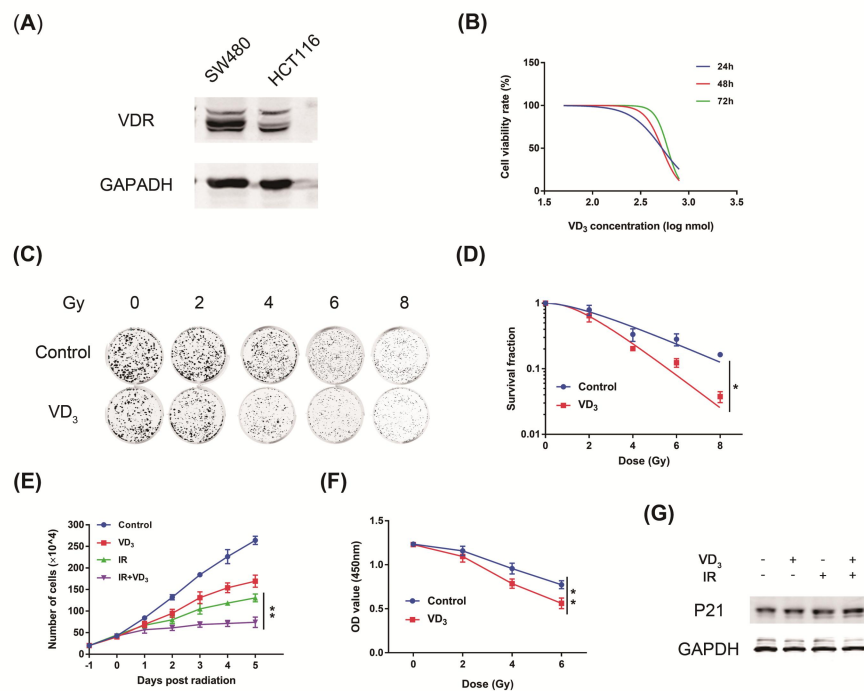


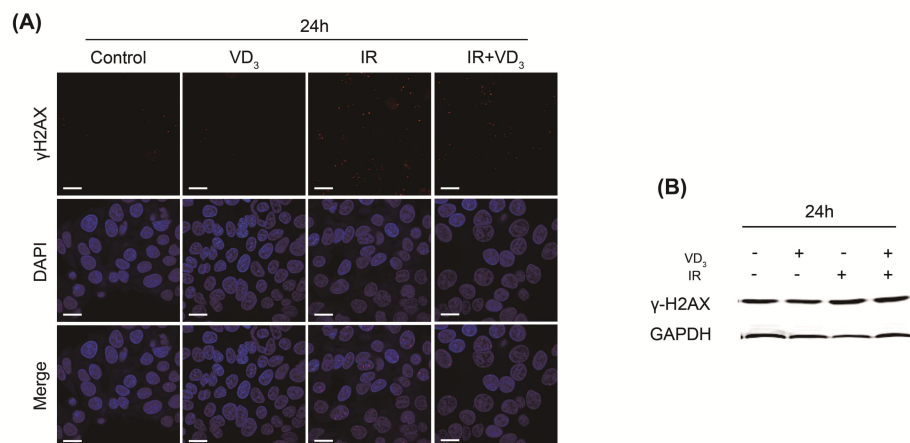
Supplementary Fig. 1.



VD₃ enhanced radiosensitivity of HCT116 in vitro

A, VDR was evident in SW480 and HCT116 cell lines. **B**, IC₅₀ of VD₃ on SW480 cells determined by CCK8. **C and D**, Clonogenic assays were used to determine the radiosensitization effects of VD₃ on HCT116 cells. **E**, Cell proliferation inhibition of VD₃ was evaluated in HCT116 cells. **F**, Trypan blue assay detected cell viability in treated HCT116 cells. **G**, p21 (Cell cycle protein) determined by western blot. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$.

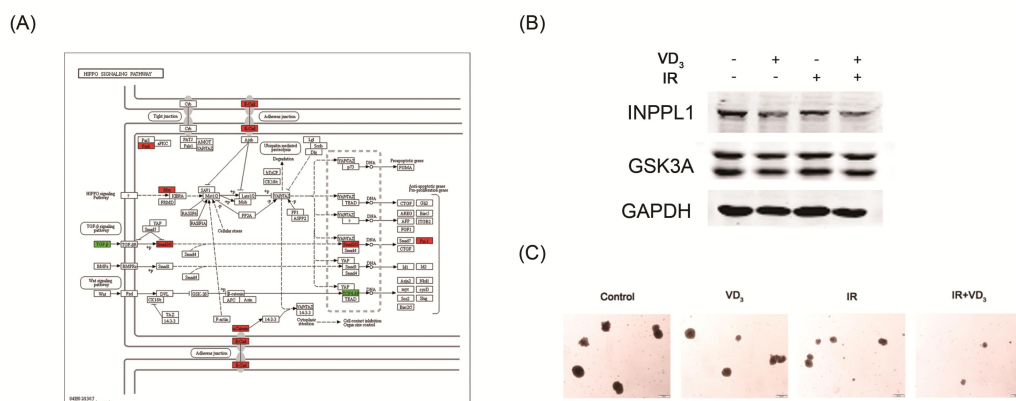
Supplementary Fig. 2.



VD₃ combined with IR participated in DNA damage

A, γ -H2AX foci formation for 24 h post IR in SW480 cells. Scale bar: 20 μ m. **B**, γ -H2AX expression for 24 h post IR was detected by western blot.

Supplementary Fig. 3.



Proteomics revealed influence on EMT

A, KEGG pathway analysis of differentially expressed proteins enriched in

TGF- β /Smad3 signaling. **B**, Immunoblot analysis of the downregulated proteins determined in proteomics. **C**, Sphere formation of colorectal cancer stem cells with combined treatment. Scale bar: 200 μ m.