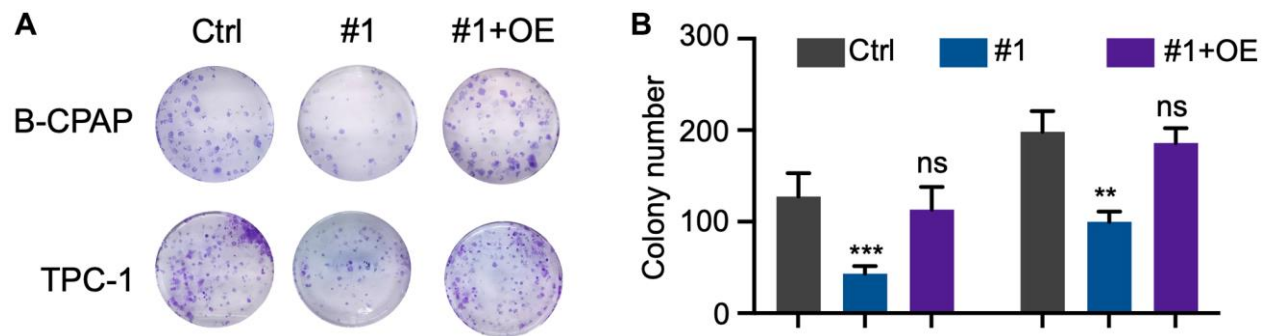
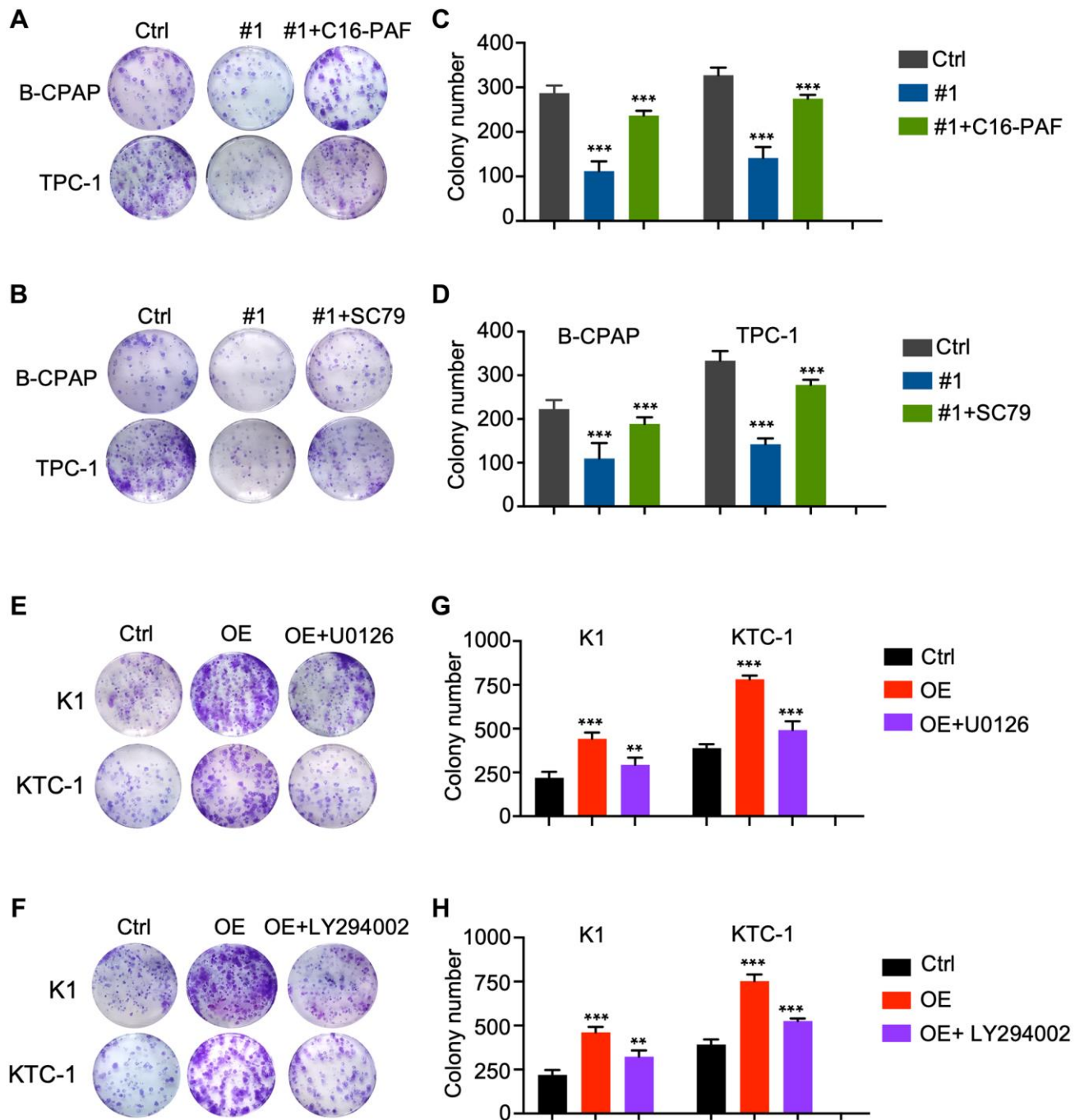


SUPPLEMENTARY FIGURES



Supplementary Figure 1. USP4 facilitates PTC progression via the MAPK and AKT pathways. (A) Representative images from colony formation assays of B-CPAP and TPC-1 cells post USP4 knockdown and reconstruction; (B) Statistical quantification of colony formation in B-CPAP and TPC-1 cells post USP4 knockdown and reconstruction. All * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$.



Supplementary Figure 2. MAPK and AKT pathway inhibitors and agonists reverse the impact of USP4 in PTC. (A, B) Representative images from colony formation assays of B-CPAP and TPC-1 cells post USP4 knockdown following C16-PAF (10 μ M for 24 h) or SC79 (4 μ g/mL for 24 h) treatment; (C, D) Statistical quantification of colony formation in B-CPAP and TPC-1 cells post USP4 knockdown following C16-PAF or SC79 treatment; (E, F) Representative images from colony formation assays of K1 and KTC-1 cells expressing USP4 following U0126 (20 μ M for 24 h) or LY294002 (50 μ M for 24 h) treatment; (G, H) Statistical quantification of colony formation in K1 and KTC-1 cells expressing USP4 following U0126 or LY294002 treatment. All * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$.