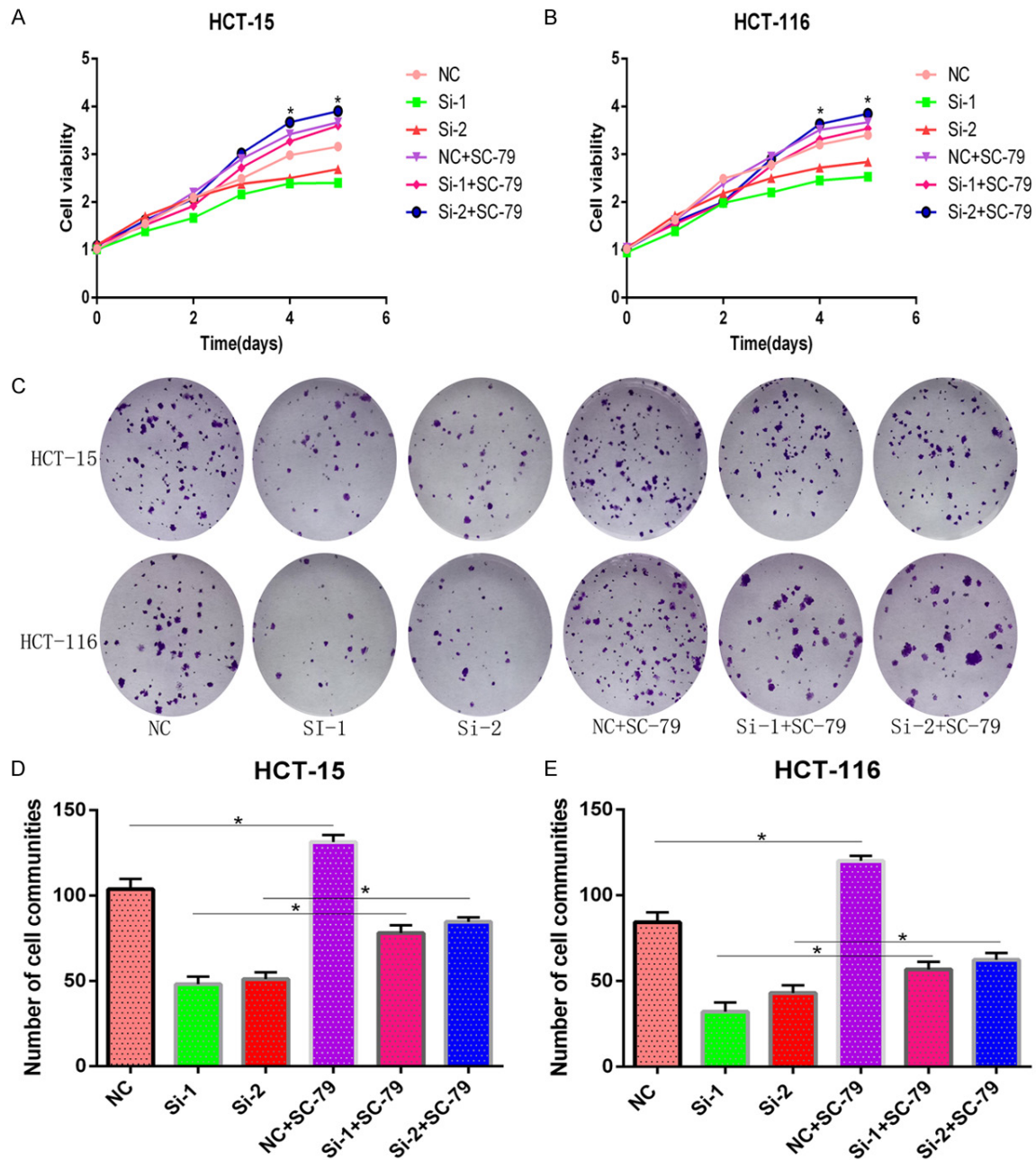
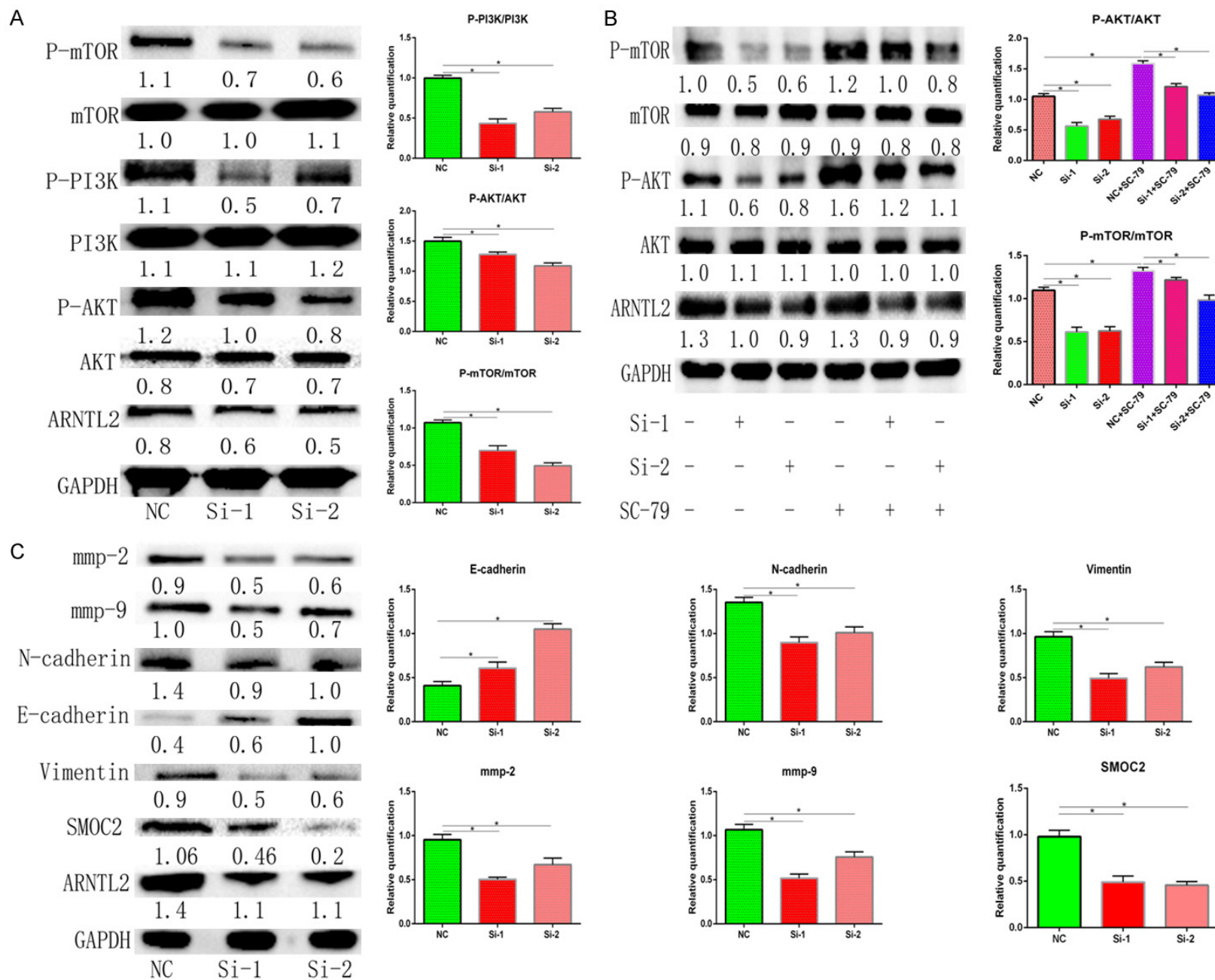


Decreased SMOC2-EMT expression through inactivation of PI3K/AKT pathway



**Supplementary Figure 1.** A, B. HCT-15 and HCT-116 cells with ARNTL2 knockdown were pre-treated with or without P-AKT agonist SC-79. It revealed that SC-79 promoted the growth of tumor cells and increased the activity of cell proliferation. C-E. HCT-15 and HCT-116 cells with ARNTL2 knockdown were pre-treated with P-AKT agonist SC-79. The colony formation rate was increased by SC-79 (\* $P < 0.05$ ).

Decreased SMOC2-EMT expression through inactivation of PI3K/AKT pathway



## Decreased SMOC2-EMT expression through inactivation of PI3K/AKT pathway

**Supplementary Figure 2.** A. ARNTL2 knockdown inactivated PI3K/AKT/mTOR signaling pathway in HCT-116 cells. The protein expression of the related factors in PI3K/AKT/mTOR signaling pathway was detected by western blot. ARNTL2 knockdown suppressed p-PI3K, p-AKT, and p-mTOR expression, and the expression of PI3K, AKT, and mTOR were not affected. B. HCT-116 cells with ARNTL2 knockdown by si-ARNTL2 (si-1, si-2) were pre-treated with P-AKT agonist SC-79 for 48 h before harvesting. The detection of AKT, P-AKT, mTOR, and p-mTOR expression level was performed by western blot. The expression of ARNTL2, p-AKT, p-mTOR was upregulated with the SC-79 after ARNTL2 knockdown. C. Knockdown of ARNTL2 suppressed EMT in HCT-116 cells. ARNTL2 knockdown markedly decreased the protein expression of N-cadherin and Vimentin and increased E-cadherin. The expression of SMOC2, MMP-2 and MMP-9 were suppressed with the inhibition of EMT (\* $P < 0.05$ ).