**Supplementary Figure Legends** 



Supplementary Figure 1. Caspase-3 inhibitor (z-DEVD-fmk) blocks HF-ATS induced expression of cleaved caspase-3 and PARP in HCT116 and DLD-1 cells. HF:10 nM; ATS:  $160 \mu$ M.



**Supplementary Figure 2.** PI staining analysis of cell death regulated by combination of HF (10 nM) and ATS (160  $\mu$ M) for 24 h in HCT116 and DLD-1 cells pretreated with caspase-3 inhibitor (z-DEVD-fmk). Upper panel: phase-contrast, lower panel: PI staining. Scale bar = 50  $\mu$ m.



**Supplementary Figure 3.** Flow cytometry (right panel) and histogram (left panel) analyses of apoptosis regulated by combination of HF (10 nM) and ATS (160  $\mu$ M) for 24 h in HCT116 and DLD-1 cell pretreated with caspase-8 and caspase-9 inhibitors together (z-IETD-fmk + z-LEHD-fmk).



**Supplementary Figure 4.** Expression of cleaved capase-8, capase-9, caspase-3 and PARP regulated by combination of HF (10 nM) and ATS (160  $\mu$ M) for 24 h in HCT116 and DLD-1 cells pretreated with caspase-8 and caspase-9 inhibitors together (z-IETD-fmk + z-LEHD-fmk).



**Supplementary Figure 5.** PI staining analysis of cell death regulated by combination of HF (10 nM) and ATS (160  $\mu$ M) for 24 h in HCT116 and DLD-1 cells pretreated with caspase-8 and caspase-9 inhibitors together (z-IETD-fmk + z-LEHD-fmk). Upper panel: phase-contrast, lower panel: PI staining. Scale bar = 50  $\mu$ m.



**Supplementary Figure 6.** PI staining analysis of cell death regulated by combination of HF (10 nM) and ATS (160  $\mu$ M) for 24 h in 5Fu resistant HCT116 cells. Upper panel: phase-contrast, lower panel: PI staining. Scale bar = 50  $\mu$ m



**Supplementary Figure 7.** PI staining analysis of cell death regulated by combination of HF (10 nM) and ATS (160  $\mu$ M) for 24 h in 5Fu resistant HCT116 cells co-treated with autophysic inhibitor CQ. Upper panel: phase-contrast, lower panel: PI staining. Scale bar = 50  $\mu$ m



Supplementary Figure 8. Immunofluorescence staining for cleaved caspase-8, caspase-9 and caspase-3 in xenograft tumors. Scale bar =  $50 \mu m$ .



Supplementary Figure 9. Immunofluorescence staining for cleaved SQSTM1 and LC3-II in xenograft tumors. Scale bar =  $50 \mu m$ .