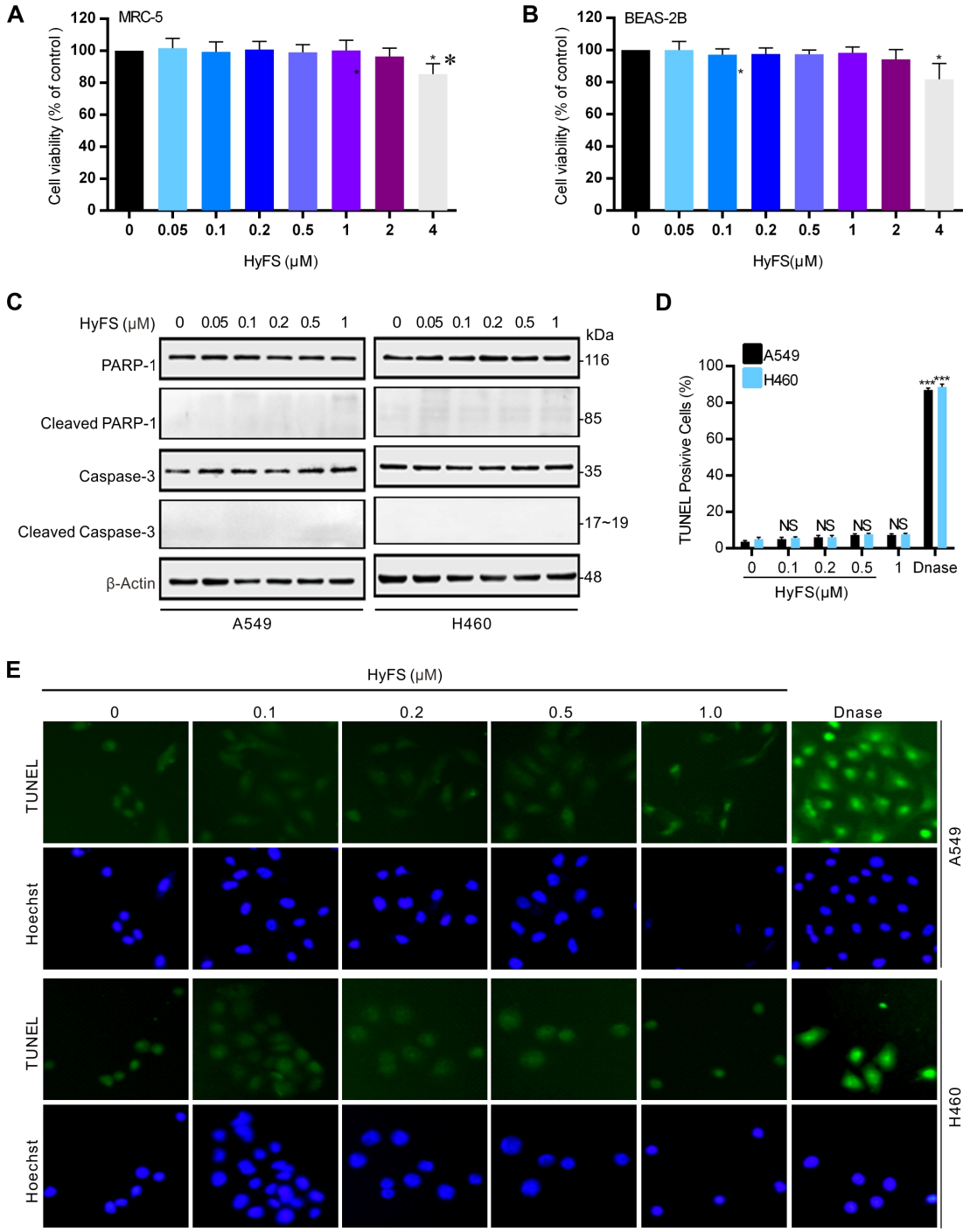

Figure S1. HyFS inhibits proliferation of lung cancer cells. (**A** and **B**) Normal lung MRC-5 (A) and BEAS-2B (B) cells were treated with indicated concentrations of HyFS for 24 h. Cell viability was examined by MTT assay. The number from the DMSO (0 μM) group was counted as 100%, and those of other groups were relative to that. (**C**) A549 and H460 lung cancer cells were treated with indicated concentrations of HyFS for 24 h, and cell lysates were used for detection of total PARP, caspase 3, cleaved-PARP, and cleaved-caspase 3 by western blot. (**E** and **D**) Cells were treated with HyFS as in (C) or DNase as a positive control for 24 h. Apoptotic cells were detected by TUNEL assay. The numbers of apoptotic cells in each group were counted from at least 100 random fields. Data are expressed as means ± SEM, * $P < 0.05$, ** $P < 0.01$, and *** $P < 0.001$.

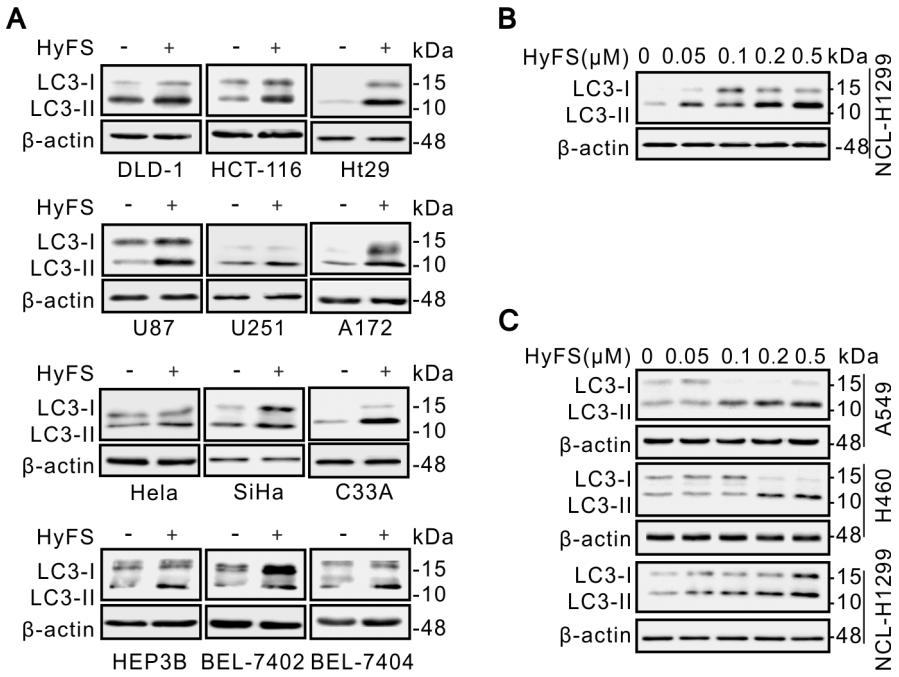

Figure S2. HyFS induces autophagy in various cancer cell lines. (**A**) Human colorectal cancer cell lines (DLD-1, HCT-116, and HT29), human glioblastoma cell lines (U87, U251, and A-172), human cervical cancer cell lines (HeLa, SiHa, and C33A), and human hepatocellular carcinoma cell lines (Hep3B, BEL-7402, and BEL-7404) were treated with or without HyFS (0.5 μM) for 24 h, and LC3-I and LC3-II were detected by western blot. (**B**) Lung cancer H1299 cells were treated with the indicated concentration of HyFS for 24 h, and LC3-I and LC3-II were detected by western blot. (**C**) A549, H460, and H1299 cells were treated with indicated concentrations of HyFS for 24 h. LC3-I and LC3-II were detected by western blot.

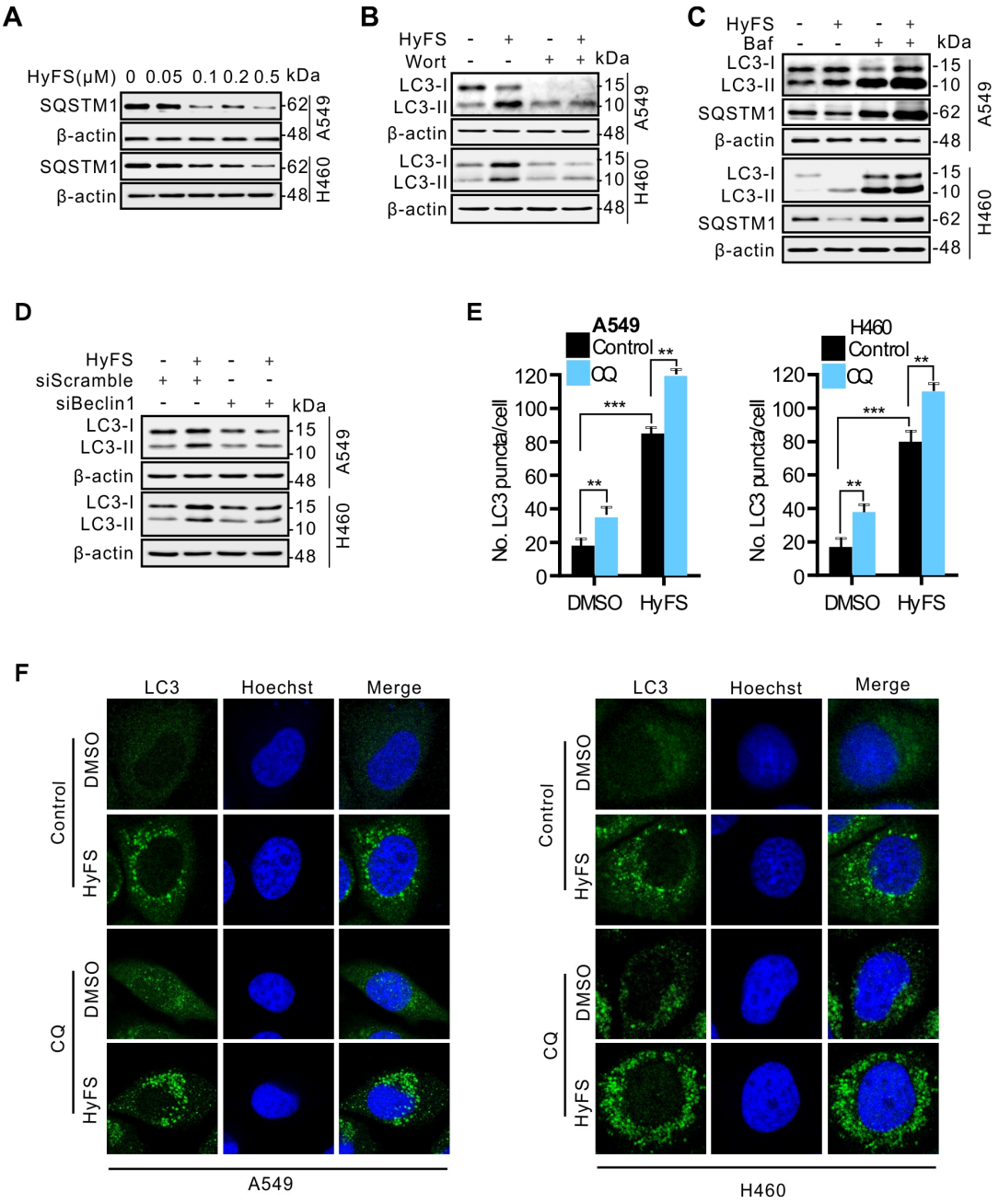

Figure S3. HyFS activates autophagy flux in lung cancer cells. (**A**) A549 and H460 cells were treated with indicated concentrations of HyFS for 24 h. Sequestosome-1 (SQSTM1) was detected by western blot. (**B**) Cells were treated with or without HyFS in combination with or without wortmannin (Wort, a phosphoinositide 3-kinase inhibitor) for 24 h. LC3-I and LC3-II were detected by western blot. (**C**) Cells were treated with or without HyFS in combination with or without bafilomycin (Baf, a H^+-ATPase inhibitor) for 24 h. LC3-I, LC3-II, and SQSTM1 were detected by western blot. (**D**) Cells were treated with or without HyFS and with siBeclin1 or control siRNA (siScramble) for 24 h. LC3-I and LC3-II were detected by western blot. (**E**) Cells were treated with DMSO or HyFS (0.5 μM) and with or without CQ for 24 h. LC3 puncta and nuclei were detected by confocal microscopy. Data are expressed as means ± SEM; * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

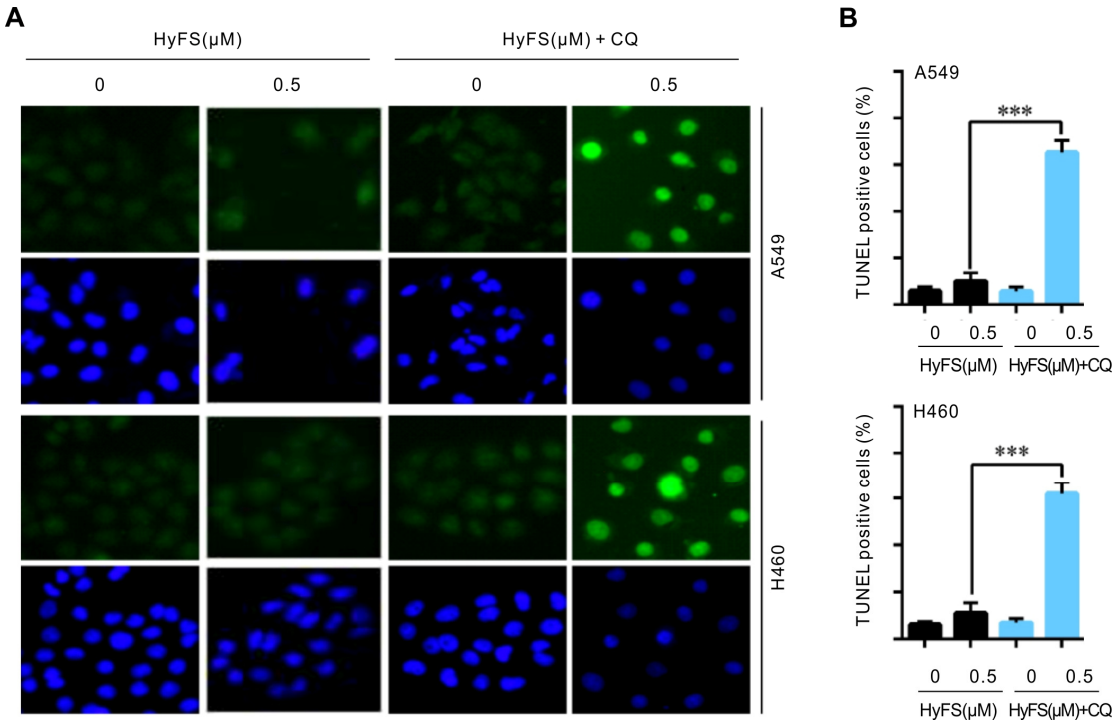

Figure S4. Inhibition of HyFS-induced autophagy enhances the antiproliferative activities and promotes cell apoptosis in lung cancer cells. (**A** and **B**) A549 and H460 cells were treated with indicated concentrations of HyFS and in combination with CQ (10 μM) for 24 h. Apoptotic cells were detected by TUNEL assay. The numbers of apoptotic cells in each group were counted from at least 100 random fields. Data are expressed as means ± SEM; * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

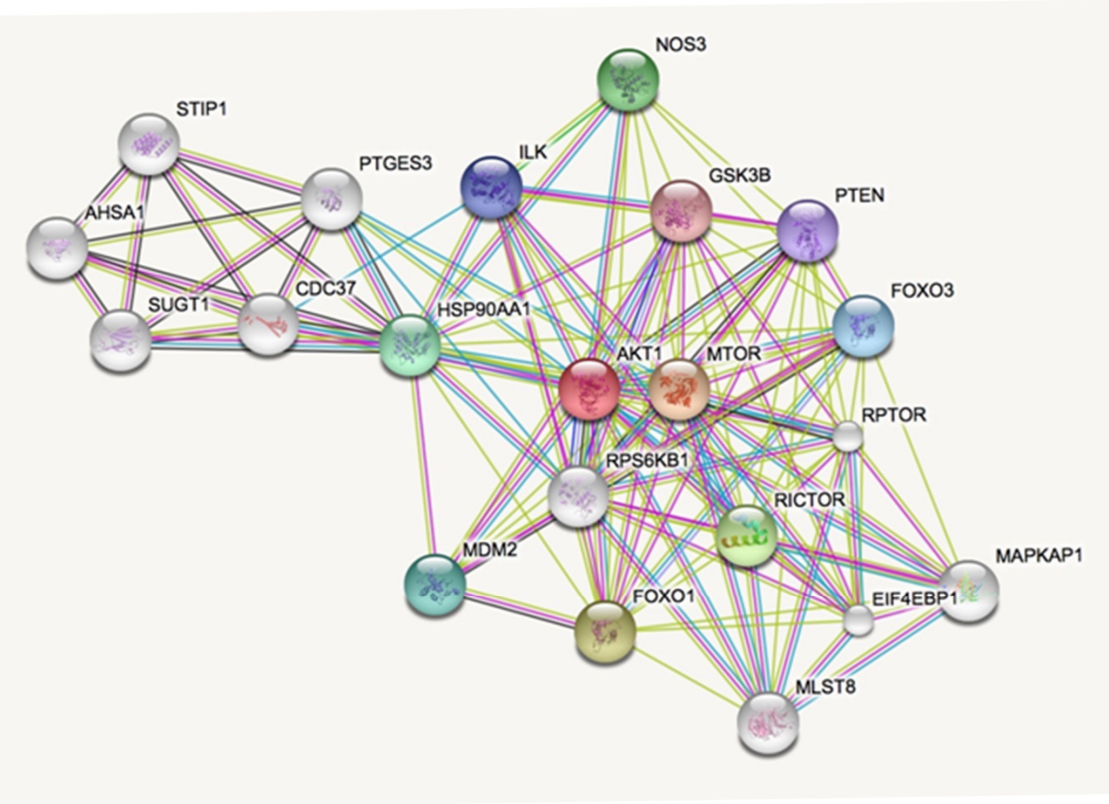

Figure S5. Interaction of Hsp90 with Akt. The relationship between Hsp90 and Akt was predicted by a global protein-protein interaction (PPI) network.