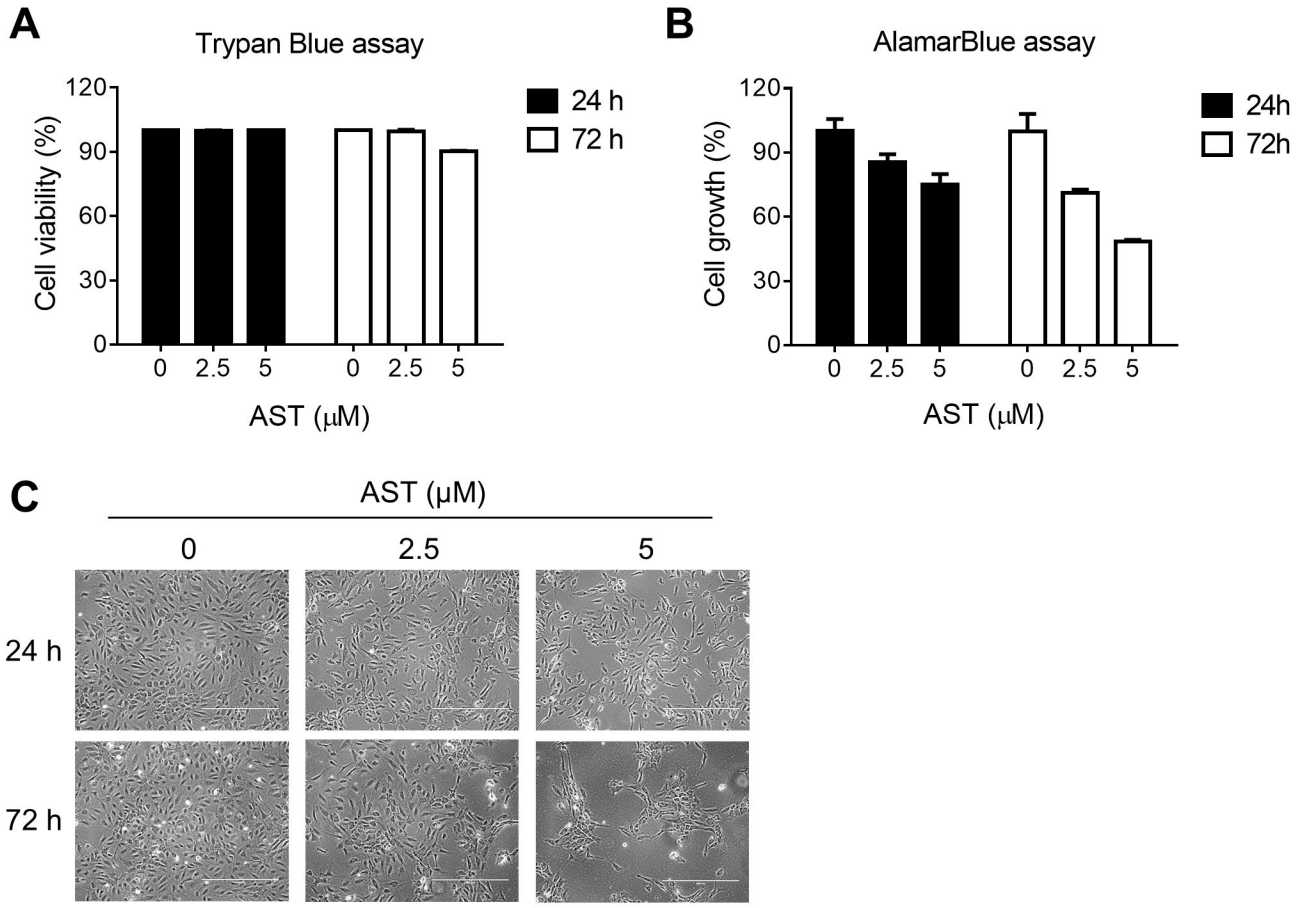
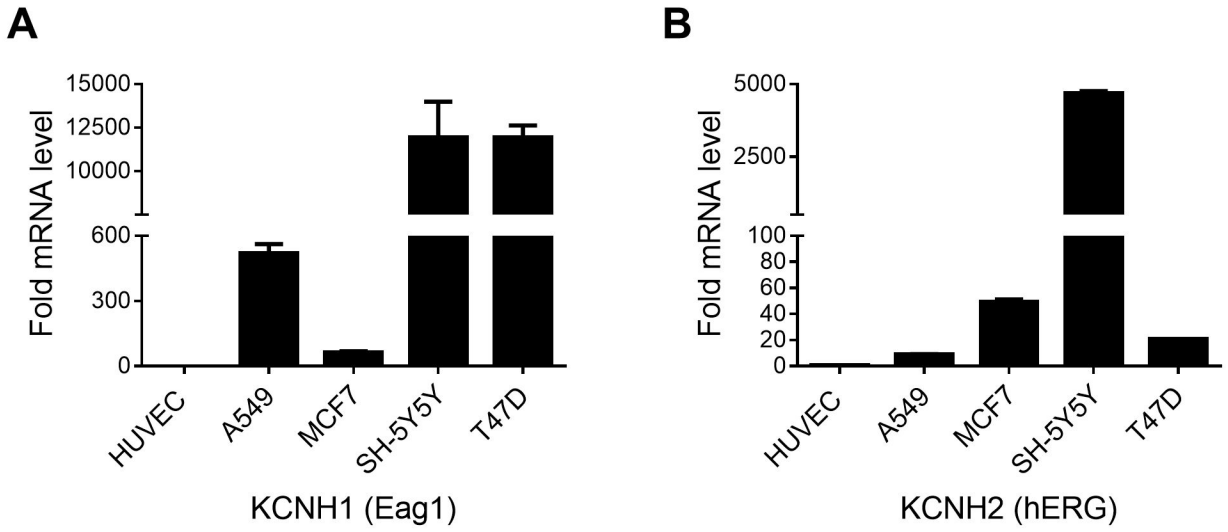


Supplementary Figure S1. Effect of AST on HUVEC toxicity. (A) Trypan blue assay was done in HUVEC treated with 2.5 and 5 μM AST for 24 and 72 h to assess cell toxicity. Cells were trypsinized and stained with trypan blue by diluting the cell suspension at 1:1 (v/v) with 0.4% trypan blue solution. The live/dead cells were counted using a hemocytometer under the microscope. The cell viability was calculated using the following formula: Cell viability (%) = 100 - stained cells/total cells × 100. (B) AlamarBlue assay was done in HUVEC with the same treatment condition to assess cell growth. (C) Representative HUVEC images from the cell viability experiment. Scale bar = 400 μm. AST, up to 5 μM treatment, did not kill HUVEC, but inhibit cell proliferation.



Supplementary Figure S2. Expression levels of Eag1 (KCNH1) and hERG (KCNH2) in HUVEC and various cancer cell lines, including A549 lung cancer, MCF7 breast cancer, SH-5Y5Y neuroblastoma and T47D breast cancer. Total RNA was extracted and reverse transcribed to measure mRNA expression levels of Eag1 and hERG using realtime-quantitative PCR (RT-qPCR) analysis with following primer pairs: KCNH1, 5'-GCCTTCTCCCATTCCTTCTC-3' and 5'-CCTCATTCTTTCGTTTCATGCG-3'; KCNH2, 5'-CCCAACACCAACTCAGAGAAG-3' and 5'-ACGTTGCCGAAGATGCTAG-3'; GAPDH (normalization control), 5'-CCCTTCATTGACCTCAACTACA-3' and 5'-ATGACAAGCTTCCCGTTCTC-3'. Relative quantitation of mRNA level was performed using the comparative CT ($2^{-\Delta\Delta CT}$) method.