SUPPLEMENT FIGURE 1. Effects of ARS on cleavage of caspases and corneal wound healing in alkali-induced rat corneal neovascularization model. A. Total and cleaved caspase9 and caspase3 were detected by Western blot analysis in the corneas of PBS-, Dex- and ARS-treated group at the 11th day after operation. The bands were semi-quantified with densitometry and normalized by β-actin. B. Fluorescein staining showed central corneal epithelial defects at day 1 after operation. All data were presented as Mean±SEM. For PBS-treated group, n=10. For ARS-treated group, n=11. * denotes p<0.05.

SUPPLEMENT FIGURE 2. Effect of ARS on cleavage of caspase3 of HDMECs. Cells were treated with ARS at different concentrations for 24h. Cleavage caspase3 was detected by Western blot analysis in total cell lysis protein.
SUPPLEMENT FIGURE 3. Effects of ARS on expression of Fas and Fas ligand in HUVECs. HUVECs were treated with 0μM, 12.5μM, 25μM, 50μM, 100μM and 200μM ARS for 24h, respectively. After treatment, total cell proteins were prepared and subjected to Western blot analysis using antibody against Fas or Fas ligand. Two additional studies yielded equivalent results. The bands were semi-quantified with densitometry and normalized by β-actin. All data were presented as Mean±SEM from three separate experiments. * denotes p<0.05.
SUPPLEMENT FIGURE 4. Effects of ARS on phosphorylation of ERK and JNK in HUVECs. A. HUVECs were exposed to 25µM ARS for indicated times. B. Cells were treated with different concentrations of ARS for 8h. Total cellular extracts were harvested for Western blot analysis. Total level and phosphorylation level of ERK and JNK were detected, respectively. All data were presented as Mean±SEM from three separate experiments. ** denotes p<0.01.
SUPPLEMENT FIGURE 5. Effects of ARS on VEGF signaling pathway in vascular endothelial cells. A. HUVECs were exposed to ARS in different concentrations for 24h. Expression level of KDR/Flk-1 was detected by Western blot analysis in total cell proteins. B. HDMECs were treated with different concentrations of ARS for 24h. Total cellular extracts were harvested to qualified KDR/Flk-1 expression by Western blot analysis. Bands were semi-quantified with densitometry and normalized by β-actin. C. HUVECs and HDMECs were incubated with different concentration of ARS for 24h. Cell culture medium was collected and the secreted VEGF was determined by ELISA assay. All data were presented as Mean±SEM from three separate experiments. * denotes $p<0.05$ and ** denotes $p<0.01$. 