

Supplemental Figure 1. Representative western blot images (A, C) and summary data (B, D) of Bax, Bcl-2 and Caspase3 protein expression levels in HCAECs cultured in normal-glucose (NG) or high-glucose (HG) medium. (E, G) Representative western blot images and (F, H) summary data showing Bax, Bcl-2 and Caspase3 protein expression levels in HCAECs cultured in HG or NG medium for 7 days in the presence or absence of the SOCE agonist ATP (100 μ M) or the SOCE inhibitor BTP2 (10 μ M). β -tubulin was used as the loading control. Values are means \pm standard error of the mean (SEM) (n =4-6 samples). $P > 0.05$ compared with NG-cultured cells or control groups.

Supplemental Figure 2. SOCE is not changed in HCAECs cultured in HG for 1, 3, or 14 days. Representative traces and summary data showing store-operated Ca^{2+} entry (SOCE) changes in human coronary artery endothelial cells (HCAECs) cultured in normal-glucose (NG) or high-glucose (HG). After 100 μ M ATP or 2 μ M TG treatment for 10 min, the application of 2 mM Ca^{2+} induces SOCE similarly in cells cultured in medium with NG or HG. Values are means \pm standard error of the mean (SEM) (n =5-6 samples). $P > 0.05$ compared with cells cultured in NG.

Supplemental Figure 3. Expression levels of Orais and STIM1 proteins are not significantly changed in HCAECs cultured in high glucose (HG) vs. normal glucose (NG) for 1, 3, or 14 days. Representative western blot images (A, day 1; C, day 3; E, day 14) and summary data (B, day 1; D, day 3; F, day 14) of Orail-3 and STIM1 protein expression levels in HCAECs cultured in normal-glucose (NG) or

high-glucose (HG) medium. β -tubulin or GAPDH was used as the loading control.

Values are means \pm SEM (n = 4-6 samples). * P < 0.05 or P > 0.05 compared with NG-cultured cells.

Supplemental Figure 4. Representative western blots demonstrating the effectiveness of IGFBP3-specific siRNA knockdown. (A) Representative western blots and (B) densitometry summary data showing significant knockdown of IGFBP3 protein 48 h after IGFBP3-specific siRNA (siIGFBP3) transfection. β -tubulin was used as the loading control. Values are means \pm SEM (n = 4 samples). * P < 0.05 compared with cells transfected with scrambled siRNA (siScrambled).