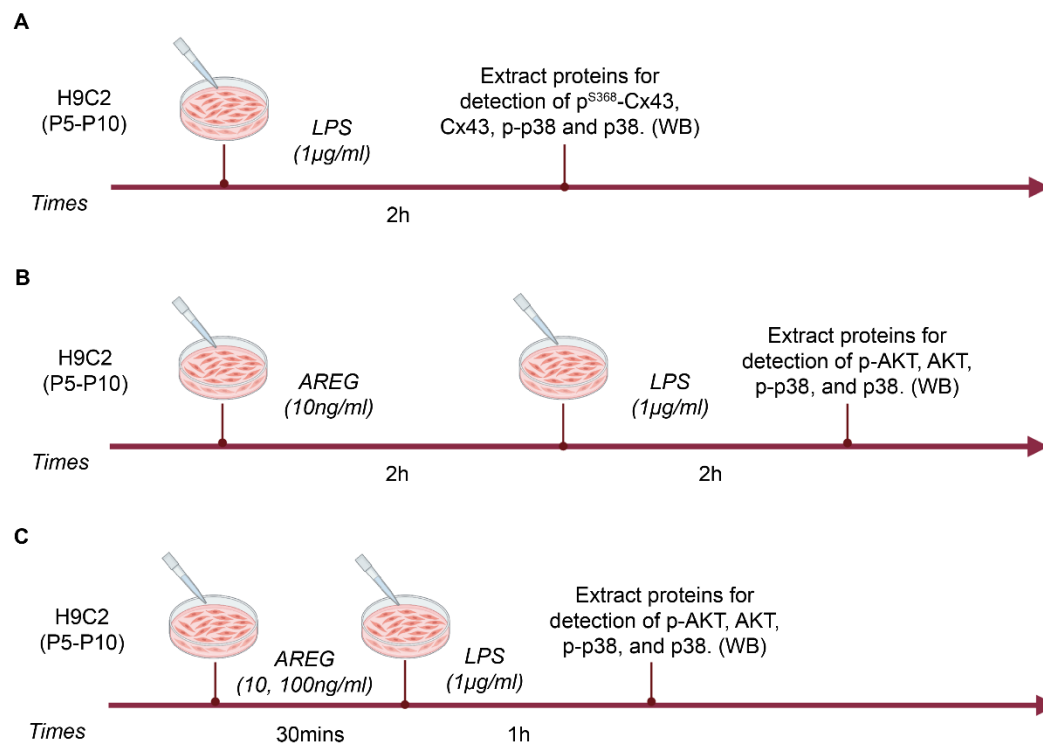


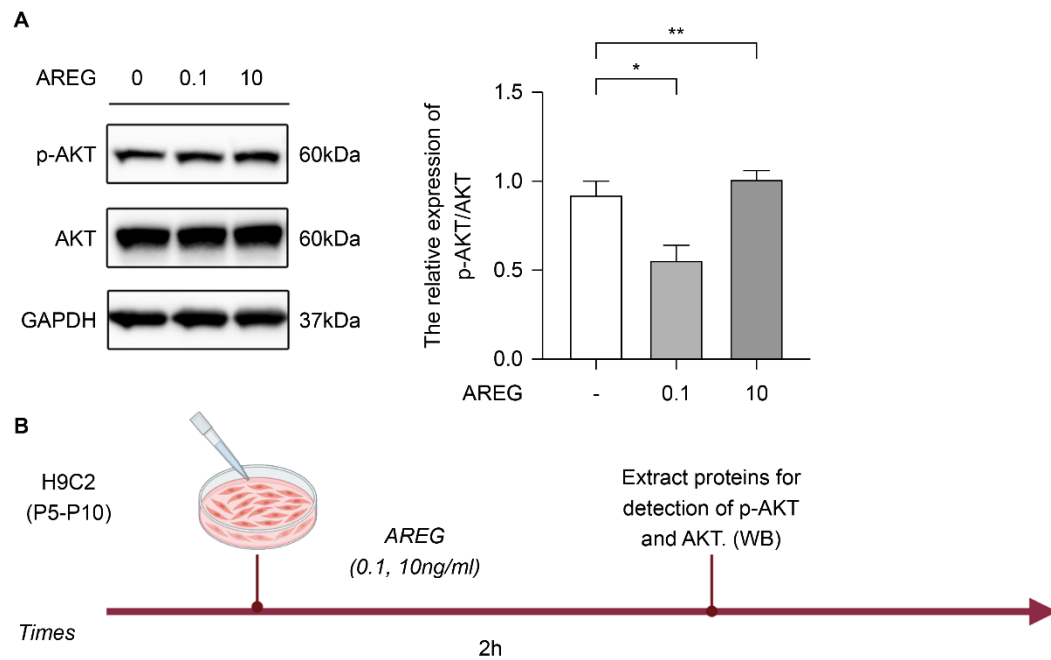
Supplementary material

S1. Experimental design for cell cultures



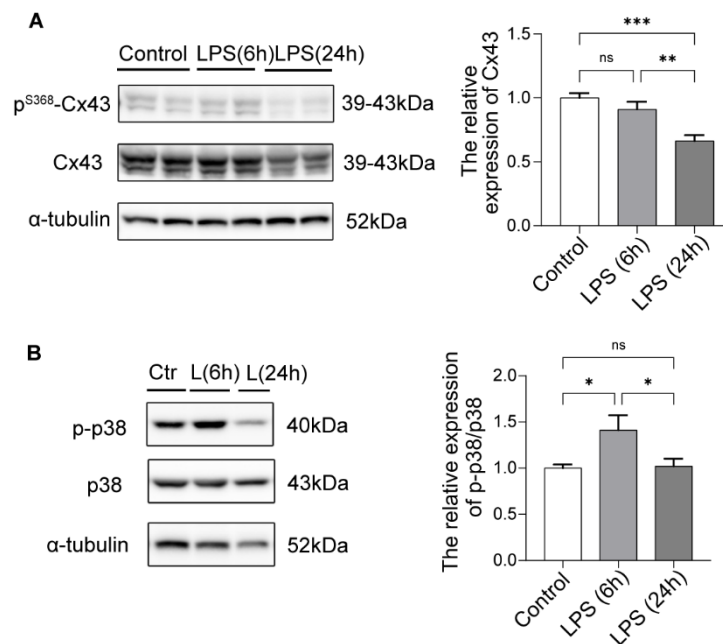
(A) H9C2 cells were stimulated with LPS (1 µg/ml, 2hrs), and cellular proteins were extracted for detection of p-p38, p38, p^{S368}-Cx43, and Cx43. (B) Pre-incubate H9C2 cells with AREG (10 ng/ml, 2 hours), and then add LPS (1 µg/ml, 2 hours) after activation of the AKT signaling pathway. (C) Pre-incubate H9C2 cells with AREG (10 ng/ml, 100 ng/ml, 30 min), followed by LPS (1 µg/ml, 1 h) in the absence of AKT signaling activation. LPS: lipopolysaccharide, AREG: amphiregulin, Cx43: connexin 43, pS368-Cx43: phosphorylated serine 368 of connexin 43, α -Tubulin: alpha tubulin, p-AKT: phosphorylated protein kinase B, AKT: protein kinase B, p-p38: phosphorylated p38, p38: p38 mitogen-activated protein kinase.

S2. Two hours of AREG stimulation phosphorylated p-AKT in H9C2



(A) Western blot analysis of p-AKT and AKT in H9C2 cells induced by AREG (0.1ng/ml, 10ng/ml; 2 hours) (n = 3 each group). Representative immunoblots are shown. α -Tubulin was used as a loading control (n = 3 each group). (B) Cell culture experiment design for AREG activation of the AKT signaling pathway. H9C2 cells were stimulated with AREG (0.1ng/ml, 10ng/ml; 2hrs), and cellular proteins were extracted for detection of p-AKT and AKT. Error bars represent the mean $\pm$ SEM. *P < 0.05; **P < 0.01; ***P < 0.001 ****P < 0.0001, and # indicates no significant difference. AREG: amphiregulin, AKT: protein kinase B, p-AKT: phosphorylated protein kinase B, α -Tubulin: alpha tubulin, SEM: standard error of the mean

S3. Alterations in Cx43 and p38 in mice following LPS treatment for 6 and 24 hours



(A-B) Western blot analysis of Cx43, p^{S368}-Cx43, p-p38, and p38 in LVs. Representative immunoblots are shown. α-Tubulin was used as a loading control (n = 5-6 for each group). Error bars represent the mean ± SEM. *P < 0.05; **P < 0.01; ***P < 0.001 and ****P < 0.0001. Cx43: connexin 43, LPS: lipopolysaccharide, LV: left ventricle, p^{S368}-Cx43: phosphorylated serine 368 of connexin 43, p-p38: phosphorylated p38, p38: p38 mitogen-activated protein kinase, α-Tubulin: alpha tubulin, SEM: standard error of the mean.