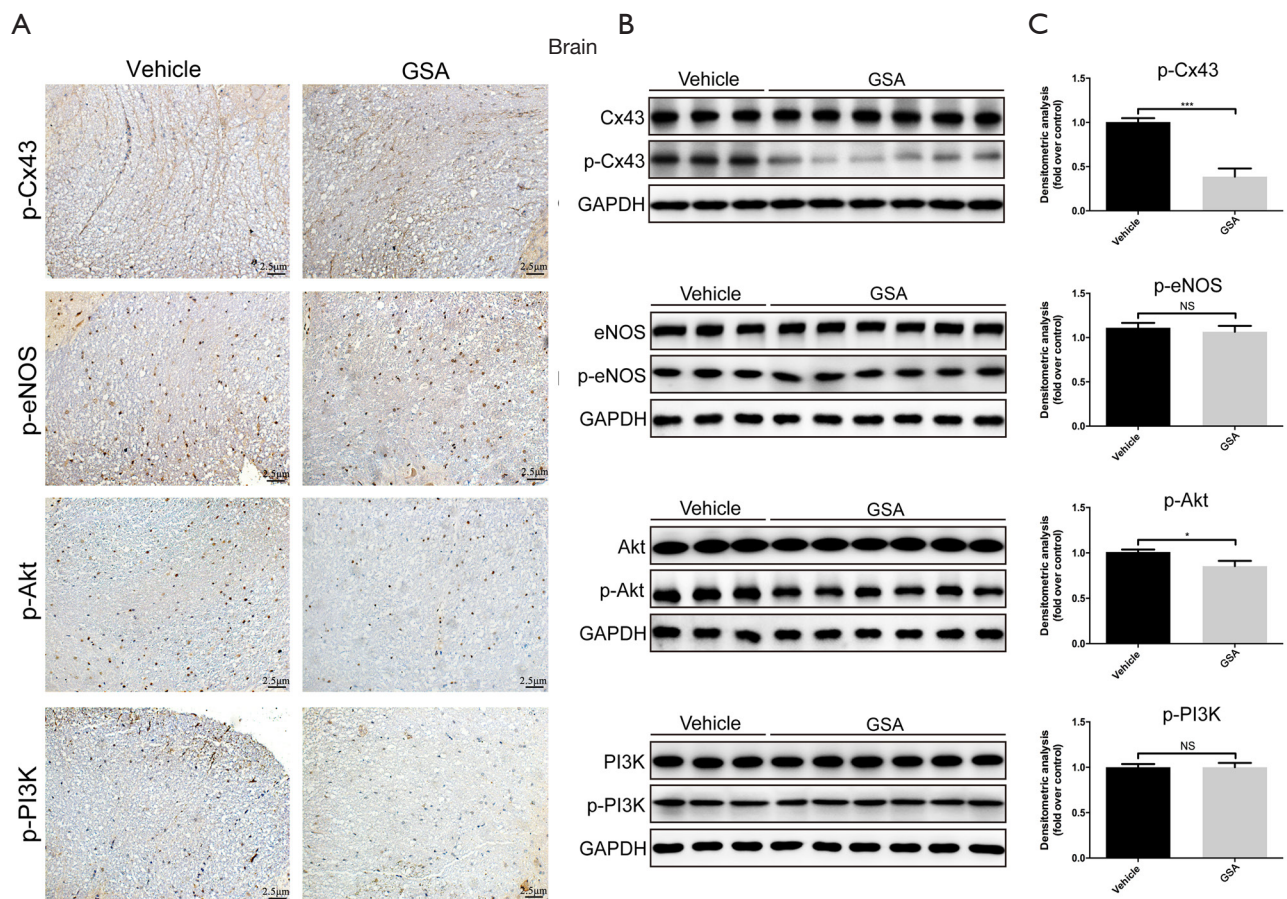


**Figure S1** Decreased phosphorylation of EC function proteins in the heart tissue of GSA-treated rats. (A) Immunohistochemistry (positive staining is brown, 1:40, 2.5  $\mu$ m per scale bar). (B) Western blot (control: n=3; GSA 200  $\mu$ g/kg: n=6). (C) The density of each protein normalized to GAPDH in relation to the control group (set as 1.0). The bars indicate the means  $\pm$  standard deviations of three rats in the control group and six rats in the GSA group. \*\* $P < 0.01$  vs. control; \*\*\* $P < 0.001$  vs. control. GSA, glycated serum albumin; Cx43, connexin 43; eNOS, endothelial nitric oxide synthase; Akt, serine-threonine kinase; PI3K, phosphatidylinositol 3-kinase; GAPDH, glycolytic enzyme glyceraldehyde 3-phosphate dehydrogenase; EC, endothelial cell.



**Figure S2** Decreased phosphorylation of EC function proteins in the brain tissue of GSA-treated rats. (A) Immunohistochemistry (positive staining is brown, 1:40, 2.5 μm per scale bar). (B) Western blot (control: n=3; GSA 200 μg/kg: n=6). (C) The density of each protein normalized to GAPDH in relation to the control group (set as 1.0). The bars indicate the means ± standard deviations of three rats in the control group and six rats in the GSA group. \* $P < 0.05$  *vs.* control; \*\*\* $P < 0.001$  *vs.* control; NS:  $P > 0.05$  *vs.* control. GSA, glycated serum albumin; Cx43, connexin 43; eNOS, endothelial nitric oxide synthase; Akt, serine-threonine kinase; PI3K, phosphatidylinositol 3-kinase; GAPDH, glycolytic enzyme glyceraldehyde 3-phosphate dehydrogenase; NS, no significance; EC, endothelial cell.