

SUPPLEMENTARY DATA

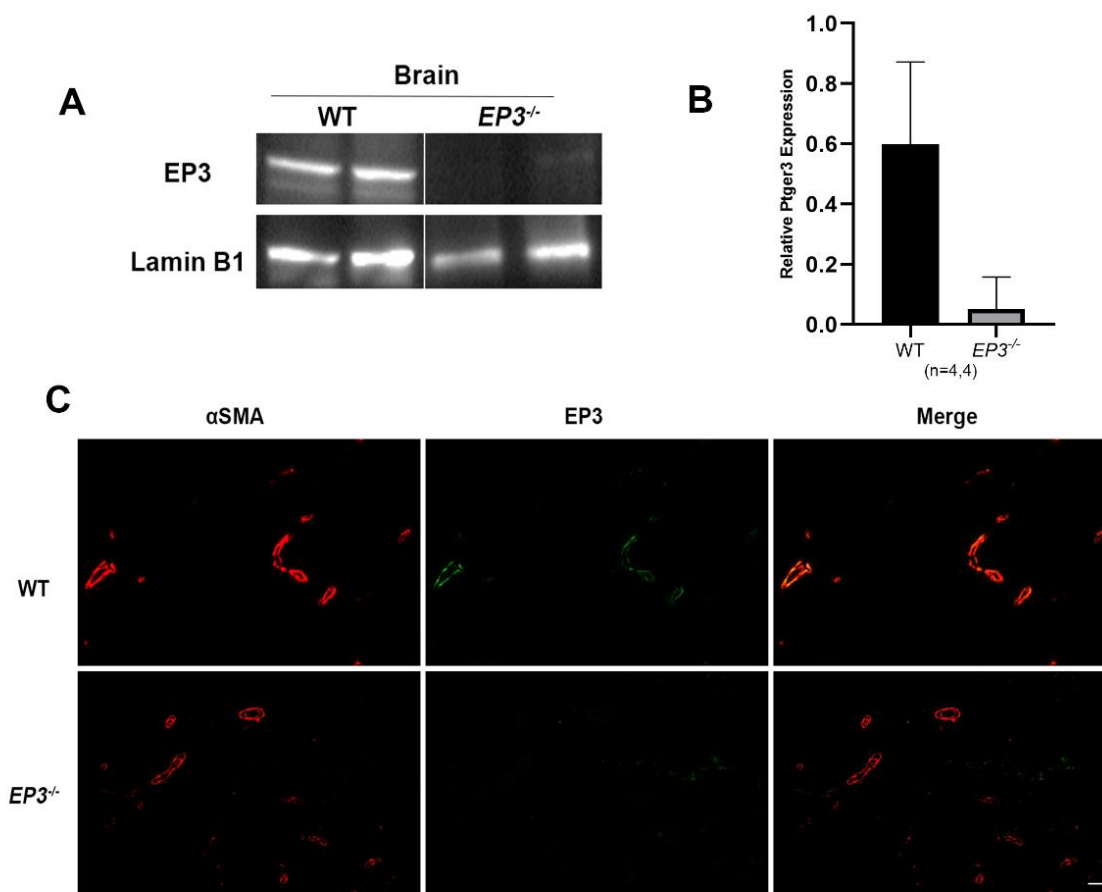
EP3 Receptor Deficiency Improves Vascular Remodeling and Cognitive Impairment in Cerebral Small Vessel Disease

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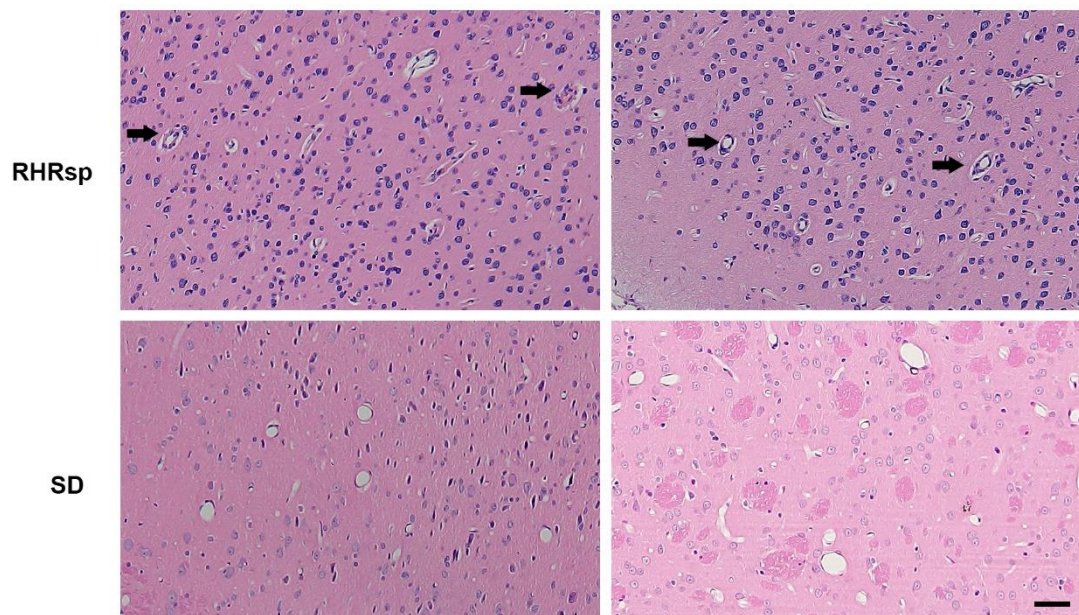
Table 1. primer sequences used for PCR

Gene	Primer sequence (5'-3')
GAPDH	CTGGAGAAACCTGCCAAGTATG GGTGGGAAGAATGGGAGTTGCT
EP3	CGCCGCTATTGATAATGATGCTG CACTCCTTCTCCTTTCCCATCT



Supplementary Figure 1. Validation of *EP3*^{-/-} rat. **(A)** Absence of EP3 protein in the brains of *EP3*^{-/-} rats by western blotting. **(B)** Quantitative real-time (RT)-polymerase chain reaction (PCR) analysis of brain gene expression in WT and *EP3*^{-/-} rats. **(C)** Absence of EP3 protein in the cerebral small arteries of *EP3*^{-/-} rats as shown by immunofluorescence, α SMA (red), and EP3 (green). The cerebral small arteries (10–65 μ m) are indicated by immunostaining for α SMA. Bar, 50 μ m. EP3, E prostanoind 3; RHRsp, stroke-prone renovascular hypertensive rat; α SMA, smooth muscle actin alpha.

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Supplementary Figure 2. Hematoxylin & Eosin (HE) staining of animals. RHRsp presented typical cerebral small vessel remodeling of cerebral small vessel disease (CSVD): thickening of the vessel wall, decrease in the inner diameter with enlarged perivascular space (indicated by black arrows). Bar, 50 μ m. RHRsp, stroke-prone renovascular hypertensive rats; SD, Sprague-Dawley rats.