Supplementary information

Methods

Brain sections (4 μm) are deparaffinized and rehydrated as described for TUNEL staining. Then, sections are incubated with primary antibodies (anti-NHE1, anti-GFAP, anti-MBP1, and anti-Iba1, the former antibody come from Santa Cruz Biotechnology, Santa Cruz, CA, USA, and the last three from Abcam, Cambridge, MA,USA) and appropriate secondary antibodies (Life Technologies, Gaithersburg, MD, USA). Normal rabbit IgG is used as a negative control (data not shown). At last, a fluorescence microscope (Olympus BX50/BX-FLA/DP70, Olympus Co., Tokyo, Japan) is applied to observe the brain sections, and observations of these sections are operated by a researcher who is entirely blind to experimental conditions.

Results

To further confirm the cellular localization of NHE1, the immunofluorescence analysis is performed in this study. Undoubltly, the levels of NHE1 are increased in brain tissues after SAH. However, we find that NHE1-positive cells are not mainly co-localization with MBP1/ GFAP /Iba1-positive cells (Fig. S1A-C).

Figure legend

Figure S1. (A) The immunofluorescence results show that NHE1 (green), oligodendrocyte marker (MBP1, red), and nuclei are fluorescently labeled with DAPI

(blue) in brain tissues of rats in Sham group and SAH group. (B) The immunofluorescence results show that NHE1 (green), astrocyte marker (GFAP, red), and nuclei are fluorescently labeled with DAPI (blue) in brain tissues of rats in Sham group and SAH group. (C) The immunofluorescence results show that NHE1 (green), microglia marker (Iba1, red), and nuclei are fluorescently labeled with DAPI (blue) in brain tissues of rats in Sham group and SAH group. Scale bar = 50 μm.