



**Supplementary Fig. 1. Effect of TST on the expressions of ephrin-A1 and ephrin-A5 in the cortex after stroke.** (A) Representative photomicrograph of ephrin-A1 immunostaining in the peri-infarct regions of brain at 2 weeks after stroke. Immunostaining of ephrin-A1 (green), NeuN (red), and Topo-3 (blue) in cells of the peri-infarct regions in the cortex. Ephrin-A1 (green) and NeuN (red) were visualized in the peri-infarct regions at 2 weeks after stroke. Ephrin-A1 expression in neurons is demonstrated as white staining after merging green (ephrin-A1), red (NeuN) and blue (Topo-3) images. Scale bars = 10  $\mu$ m. SC: sham control; Stroke: photothrombotic ischemic stroke; Stroke + TST: 1 w after TST initiated at 5 days after stroke. Counts of ephrin-A1-positive neurons of total neurons. Results are presented as the mean  $\pm$  SEM, n = 5/group. \*\*p<0.01, \*\*\*p<0.001 vs SC. ###p<0.001 vs Stroke. Immunostaining of ephrin-A1 (green), GFAP in astrocytes (red), and Topo-3 (blue) of the peri-infarct regions. Scale bars = 50  $\mu$ m. (B) Immunostaining of ephrin-A5 (green) and GFAP (red) in cells of the peri-infarct regions in the cortex. Ephrin-A5 expression in astrocytes is demonstrated as yellow staining after merging green (ephrin-A5) and red (GFAP) images. Scale bars = 100  $\mu$ m. Counts of ephrin-A5-positive astrocytes of total cells. Results are presented as the mean  $\pm$  SEM, n = 5/group. \*p<0.05, \*\*p<0.01, \*\*\*p<0.001 vs SC. Immunostaining of ephrin-A5 (green) and NeuN (red) in cells of the peri-infarct regions in the cortex. Ephrin-A5 (green) and NeuN (red) were visualized in the peri-infarct regions at 2 weeks after stroke. Scale bars = 100  $\mu$ m.

## Supplementary table 1. List of primary antibodies

Antibody	dilution	Source code	Source
anti-EphA2	1:200	sc-924	Santa Cruz Biotechnology, Dallas, Texas, USA
anti-EphA4	1:200	sc-921	Santa Cruz Biotechnology, Dallas, Texas, USA
anti-EphB1	1:200	sc-926	Santa Cruz Biotechnology, Dallas, Texas, USA
anti-ephrin-A1	1:200	sc-911	Santa Cruz Biotechnology, Dallas, Texas, USA
anti-ephrin-A2	1:200	sc-912	Santa Cruz Biotechnology, Dallas, Texas, USA
anti-ephrin-A5	1:500	ab-60705	Abcam, Cambridge, UK
anti-ephrin-B1	1:200	sc-1011	Santa Cruz Biotechnology, Dallas, Texas, USA
anti-ephrin-B3	1:200	sc-9934	Santa Cruz Biotechnology, Dallas, Texas, USA
anti-GFAP	1:1000	MAB3402	EMD Millipore, Darmstadt, Germany
anti-GFAP	1:1000	sc-6171	Santa Cruz Biotechnology, Dallas, Texas, USA
anti- $\beta$ -actin	1:2000	A5441	Sigma-Aldrich, St. Louis, MO, USA
anti-NeuN	1:1000	MAB377	EMD Millipore, Darmstadt, Germany
anti-NeuN	1:1000	ABN78	EMD Millipore, Darmstadt, Germany