

Figure S1. Flowchart of the *in vivo* studies. Rats were trained for the beam walking and adhesive tape removal tests for three consecutive days before they underwent sham-operation or MCAO. BMSCs or NS were infused intraarterially 24 h post sham/MCAO operation. P2 or NS were subcutaneously injected daily for 14 d beginning 24 h after sham/MCAO operation. BrdU was intraperitoneally injected twice per day for 10 d starting from BMSC infusion. PD98059 or LY294002 was intraperitoneally injected at day 1, 5, 10, 14 after MCAO operation. Behavioral tests were conducted at 0 d (before sham/MCAO), and at 1, 7, 14, 28 d after sham/MCAO. Rats were sacrificed at 2 d or 15 d post sham/MCAO for histological assessments and mechanistic investigations. Abbreviations: i.a.: intraarterial; s.c.: subcutaneous; i.p.: intraperitoneal.

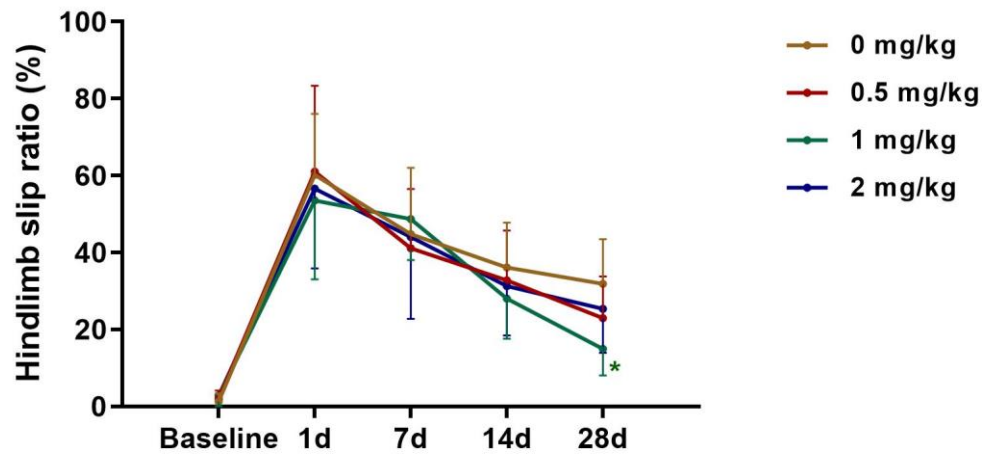


Figure S2. P2 (1 mg/kg) promotes functional recovery after MCAO. MCAO rats received subcutaneous injection of different doses (0, 0.5, 1, 2, 5 mg/kg) of P2 daily for 14 d beginning 24 h after MCAO. Beam-walking test was performed to evaluate the functional recovery. N=6/group for 0, 0.5, 1, 2 mg/kg of P2, and n=10 for 5 mg/kg of P2. The behavioral testing was not completed for the 5 mg/kg group because 60% of rats died within 3 d of P2 injection. Hence, this data is not provided. * $p < 0.05$: 1 mg/kg P2 versus control (0 mg/kg) group.