Table S1. Animal assignments and measurements

Animal	Age	Number	Treatment	Endpoint	Measurements	Exclusion
Newborn SD rats (n=10)	1-3 d	10	Cortical neuron isolation	N/A	Cell culture	N/A
Adult SD rats (n=34, 4 dead and 2 model failure rats were excluded prior to group assignment)	8-10 w	6	MCAO + NS daily injection (s.c.) for 14 d beginning 24 h after MCAO	28 d	Behavioral testing, animal survival time	0
		6	MCAO + 0.5 mg/kg P2 daily injection (s.c.) for 14 d beginning 24 h after MCAO	28 d		0
		6	MCAO + 1 mg/kg P2 daily injection (s.c.) for 14 d beginning 24 h after MCAO	28 d		0
		6	MCAO + 2 mg/kg P2 daily injection (s.c.) for 14 d beginning 24 h after MCAO	28 d		0
		10	MCAO + 5 mg/kg P2 daily injection (s.c.) for 14 d beginning 24 h after MCAO	28 d		6 (death)
Adult SD rats (n=158, 17 dead and 11 model failure rats were excluded prior to group assignment)	8-10 w	6	Sham surgery + NS infusion (i.a.) 24 h after surgery + NS daily injection (s.c.) beginning 24 h after surgery	2 d after sham surgery	IHC/IF	0
		17		15 d after sham surgery	Behavioral testing, IHC/IF, RT-qPCR, WB	0
		6	MCAO + NS infusion (i.a.) 24 h after MCAO + NS daily injection (s.c.) beginning 24 h after MCAO	2 d after MCAO	IHC/IF	0
		20		15 d after MCAO	Behavioral testing, IHC/IF, RT-qPCR, WB	3 (death)
		6	MCAO + BMSC infusion (i.a.) 24 h after MCAO + NS daily injection (s.c.) beginning 24 h after MCAO	2 d after MCAO	IHC/IF	0
		20		15 d after MCAO	Behavioral testing, IHC/IF, RT-qPCR, WB	2 (death)
		6	MCAO + NS infusion (i.a.) 24 h after MCAO + P2 daily injection (s.c.) beginning 24 h after MCAO	2 d after MCAO	IHC/IF	0
		19		15 d after MCAO	Behavioral testing, IHC/IF, RT-qPCR, WB	2 (death)
		6	MCAO + BMSC infusion (i.a.) 24 h after MCAO + P2 daily injection (s.c.) beginning 24 h after MCAO	2 d after MCAO	IHC/IF	0
		20		15 d after MCAO	Behavioral testing, IHC/IF, RT-qPCR, WB	1 (death)
		6	MCAO + BMSC infusion (i.a.) 24 h after MCAO + P2 daily injection (s.c.) beginning 24 h after MCAO	2 d after MCAO	IF	0

		10	+ PD98059 injection (i.p.) at day 1,5,10,14 after MCAO	15 d after MCAO	Behavioral testing, WB	3 (death)
		6	MCAO + BMSC infusion (i.a.) 24 h after MCAO + P2 daily injection (s.c.) beginning 24 h after MCAO + LY294002 injection (i.p.) at day 1,5,10,14 after MCAO	2 d after MCAO	IF	0
		10		15 d after MCAO	Behavioral testing, WB	2 (death)

Abbreviations: i.a.: intraarterial; s.c.: subcutaneous; IHC: immuohistochemical staining; IF: immunofluorescence staining; RT-qPCR: real-time quantitative polymerasechain reaction; WB: Western blotting.

Table S2. The antibodies for Western blotting and immunofluorescence staining

Antibody	Cat. number	Supplier	Dilution	Application
NeuN	ab177487	Abcam	1:100	IF
BrdU	B2531	Sigma	1:150	IF
GFP	50430-2-AP	Proteintech	1:100	IF
goat anti-rabbit IgG (Alexa-488)	ab150077	Abcam	1:250	IF
goat anti-mouse IgG (Alexa-594)	ab150116	Abcam	1:250	IF
phospho-AKT (Ser 473)	4060	Cell Signaling Technology	1:1000	WB
AKT	9272 or 4691	Cell Signaling Technology	1:1000	WB
phospho-P38 (Thr180/Tyr182)	4511	Cell Signaling Technology	1:1000	WB
P38	9212	Cell Signaling Technology	1:1000	WB
phospho-ERK (Thr202/Tyr204)	4370	Cell Signaling Technology	1:1000	WB
ERK	9102 or 4695	Cell Signaling Technology	1:1000	WB
phospho-JNK (T183/T221)	ab124956	Abcam	1:1000	WB
JNK	ab179461	Abcam	1:1000	WB
Nrf2	16396-1-AP	Proteintech	1:10000	WB
Lamin B	12987-1-AP	Proteintech	1:6000	WB
HO-1	10701-1-AP	Proteintech	1:1000	WB
BDNF	ab108319	Abcam	1:1000	WB
GDNF	ab176564	Abcam	1:1000	WB
VEGF	sc-7269	Santa Cruz Biotechnology	1:1000	WB
NGF	ab52918	Abcam	1:1000	WB
IGF-1	ab9572	Abcam	1:1000	WB
Bax	50599-2-Ig	Proteintech	1:1000	WB
Bcl-2	26593-1-AP	Proteintech	1:1000	WB
cleaved caspase-3	19677-1-AP	Proteintech	1:1000	WB

cleaved caspase-9	10380-1-A	Proteintech	1:1000	WB
β-actin	TA-09	ZSGB-BIO	1:1000	WB
horseradish peroxidase conjugated goat anti-rabbit IgG	31460	Invitrogen	1:5000	WB
horseradish peroxidase conjugated goat anti-mouse IgG	31430	Invitrogen	1:5000	WB

Abbreviations: IF: immunofluorescence staining; WB: Western blotting.

Table S3. The primer sequences for RT-qPCR

Gene	Forward Primer (5'→3')	Reverse Primer (5'→3')
BDNF	GGTCACAGTCCTGGAGAAAG	GTCTATCCTTATGAACCGCC
GDNF	CGGACGGGACTCTAAGATGA	CGTCATCAAACTGGTCAGGA
NGF	GCCCACTGGACTAAACTTCAGC	CCGTGGCTGTGGTCTTATCTC
VEGF	GGCTCACTTCCAGAAACACG	GTGCTCTTGCAGAATCTAGTGG
IGF-1	GCACTCTGCTTGCTCACCTTTA	TCCGAATGCTGGAGCCATA
GAPDH	GGCACAGTCAAGGCTGAGAATG	ATGGTGGTGAAGACGCCAGTA