SUPPLEMENTARY MATERIAL

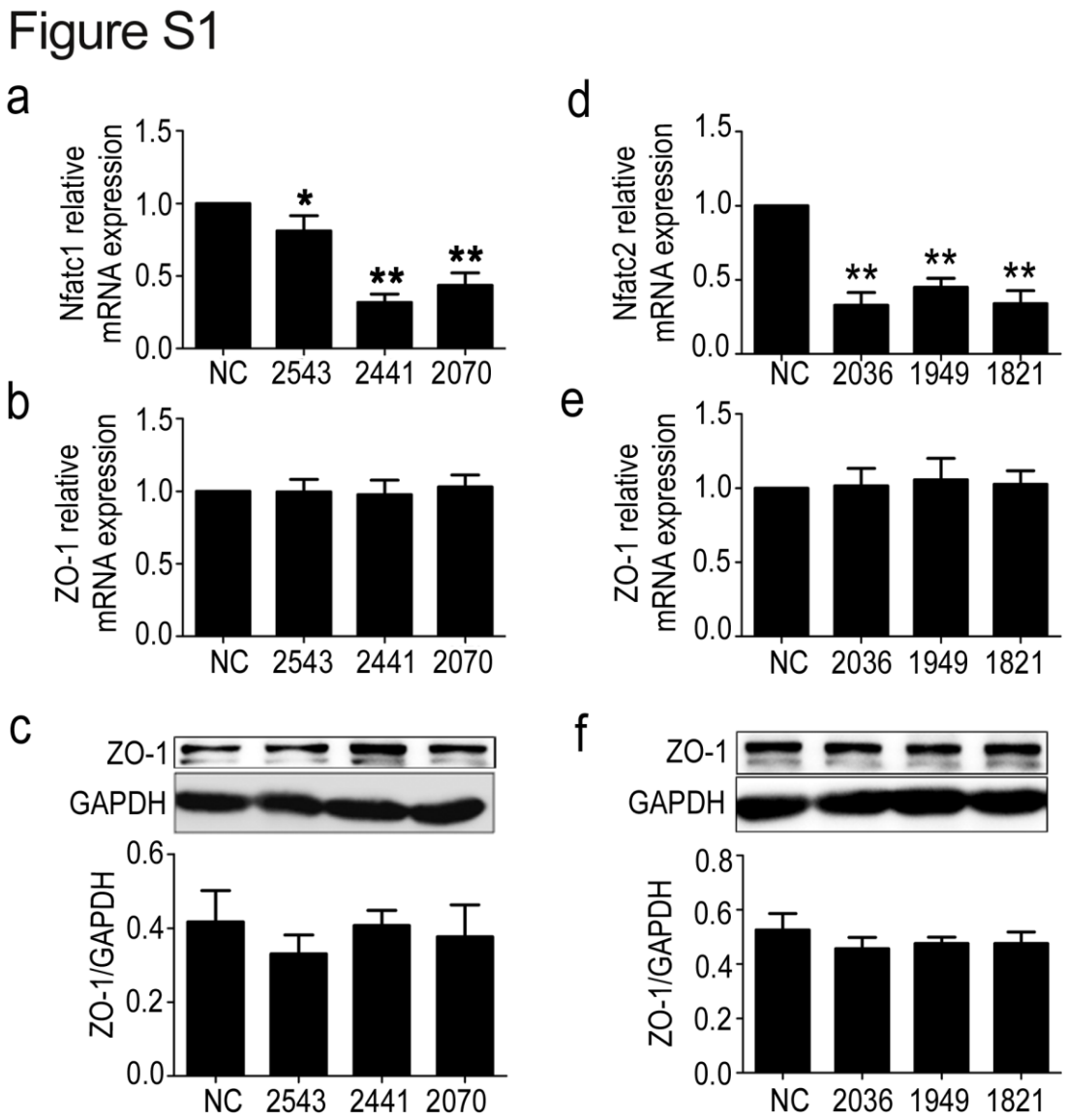

Figure S1. Effect of NFATC1 and NFATC2 interference on zonula occludens-1 (ZO-1) expression. (a) NFATC1 interference assay. siNfatc1-2543, SiNfatc1-2441 and siNfatc1-2070 reduced Nfatc1 mRNA levels, (b) whereas did not influence levels of ZO-1 mRNA or (c) protein. (d) NFATC2 interference assay. siNfatc2-2036, siNfatc2-1949, and siNfatc2-1821 suppressed Nfatc2 mRNA expression, (e) whereas did not influence levels of ZO-1 mRNA or (f) protein. One-way ANOVA was used for repeated measurements. Data are shown as the mean ± SD, n = 3.* $p < 0.05$ and ** $p < 0.01$ vs. NC.

Figure S2

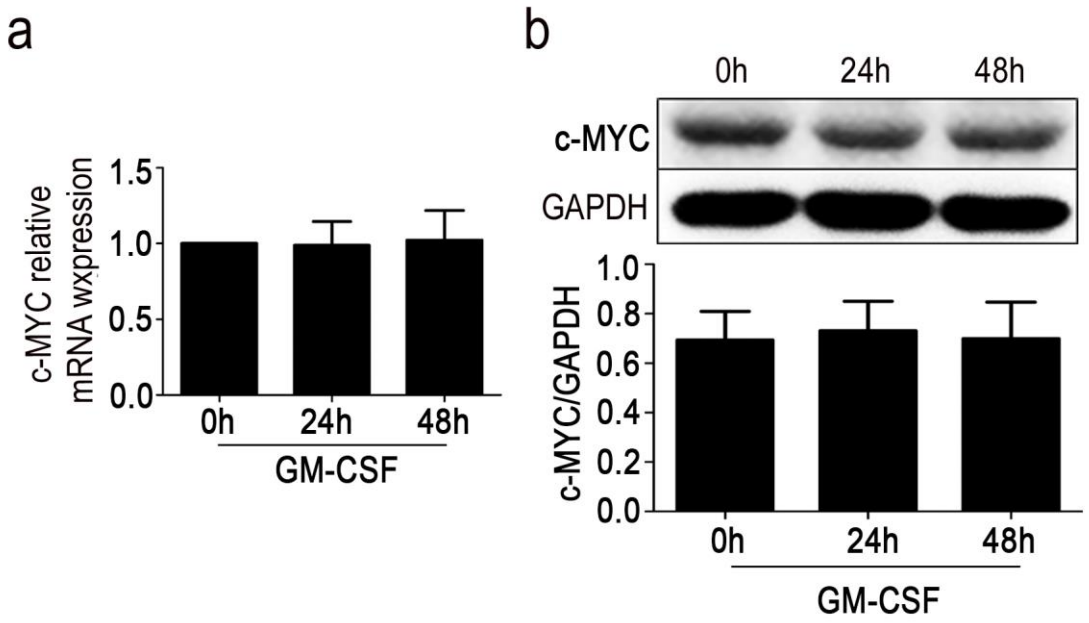

Figure S2. Effect of granulocyte/macrophage colony-stimulating factor (GM-CSF) on c-MYC expression. Levels of c-MYC mRNA (a) and protein (b) were detected in human brain microvascular endothelial cells (HBMECs) stimulated with 20 ng/ml GM-CSF for 24 or 48 h. One-way ANOVA was used for repeated measurements. Data are shown as the mean ± SD, n = 3.

Figure S3

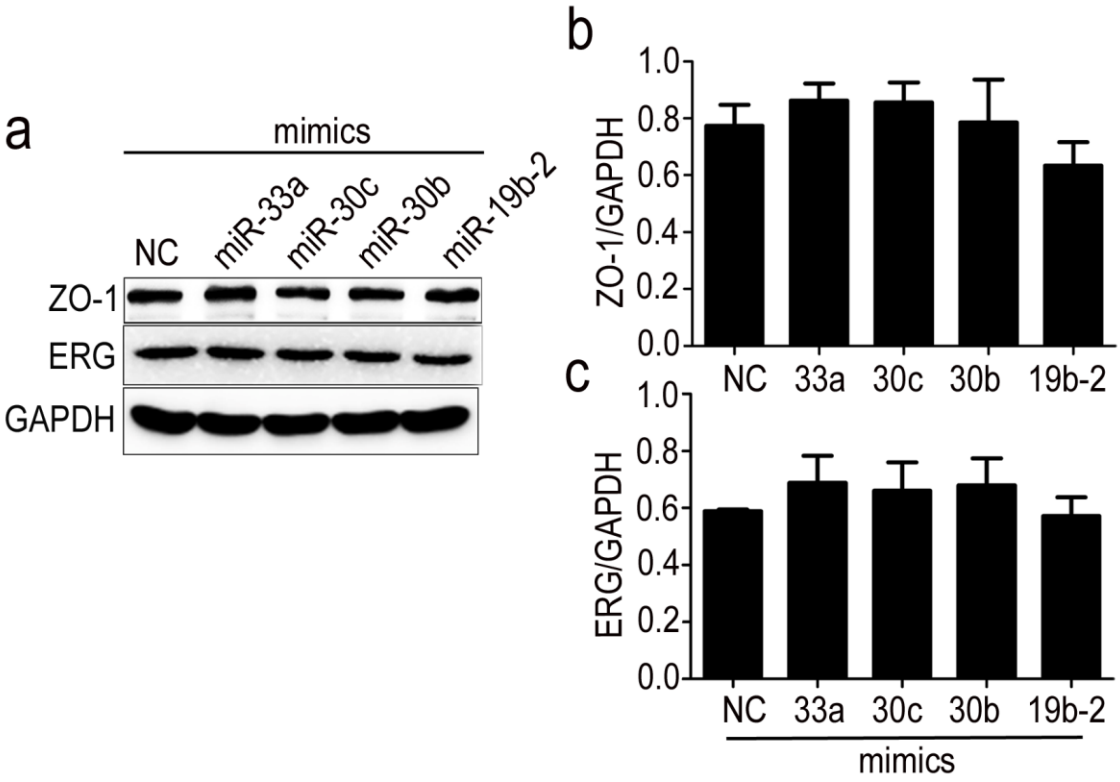

Figure S3. Effects of miR-33a, miR-30c, miR-30b and miR-19b2 on the erythroblast transformation-specific (ETS) transcription factor ERG and zonula occludens-1 (ZO-1) expression. Levels of ZO-1 (a, b) and ERG (a, c) protein were not suppressed by miR-33a, miR-30c, miR-30b or miR-19b2 in human brain microvascular endothelial cells (HBMECs). A two-tailed t-test ($\alpha = 0.05$) was used for repeated measurements. Data are shown as the mean ± SD, n = 3.

Figure S4

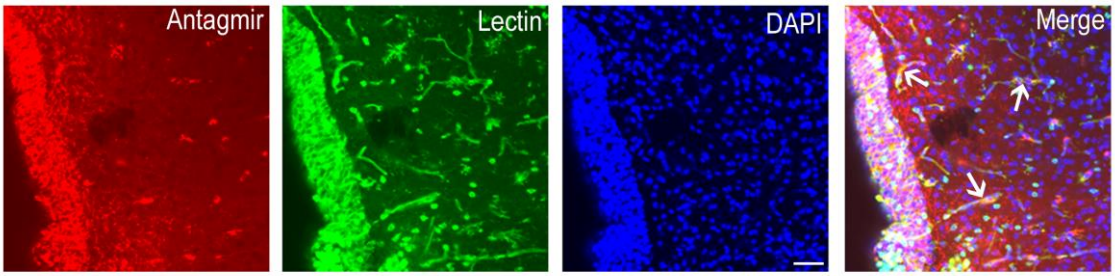

Figure S4. Diffusion of miR-96 antagomir-cy3 in the mouse brain corpus striatum 48 h after an intracerebroventricular injection. Vibratome slices (50 µm thick) of corpus striatum were stained with lectin (green) and 4,6-diamidino-2-phenyl-indole (DAPI) (blue). Diffusion of miR-96 antagomir-cy3 into brain microvessels was indicated by white arrows. Scale bar = 100 µm.

Table S1. siRNA sequences

Target gene	siRNA name	5′–3′ siRNA sequence
Human ERG	605-sense	GAACAUCGAUGGGAAGGAATT
	605-antisense	UUCCUUCCCAUCGAUGUUCTT
	518-sense	GCUAUGGAGUACAGACCAUTT
	518-antisense	AUGGUCUGUACUCCAUAGCTT
	165-sense	GACCAGUCGUUGUUUGAGUTT
	165-antisense	ACUCAAACAACGACUGGUCTT
Human NFATC1	2543-sense	GGUAACGCCAUCUUUCUAATT
	2543-antisense	UUAGAAAGAUGGCGUUACCTT
	2441-sense	CGGAAUCAGAGGAUAACCATT
	2441-antisense	UGGUUAUCCUCUGAUUCCGTT
	2070-sense	GAAACUCCGACAUUGAACUTT
	2070-antisense	AGUUCAAUGUCGGAGUUUCTT
Human NFATC2	2036-sense	GUCCAAAGUUGUGUUUACUTT
	2036-antisense	AGUAAACACAACUUUGGACTT
	1949-sense	GCCCAUGGUUGAAAGACAATT
	1949-antisense	UUGUCUUUCAACCAUGGGCTT
	1812-sense	GAGACGGACAUUGGAAGAATT
	1812-antisense	UUCUUCCAAUGUCCGUCUCTT
	1475-sense	UCUCCACACAUCAGCACAATT
	1475-antisense	UUGUGCUGAUGUGUGGAGATT

Human c-MYC	1094-sense	GCUUGUACCUGCAGGAUCUTT
	1094-antisense	AGAUCCUGCAGGUACAAGCTT
	587-sense	GCUUCACCAACAGGAACUATT
	587-antisense	UAGUUCCUGUUGGUGAAGCTT
Negative control	Sense	UUCUCCGAACGUGUCACGUTT
	antisense	ACGUGACACGUUCGGAGAATT

Table S2. Primers of real-time RT-PCR

Target gene	Oligonucleotide sequence forward, reverse	5′–3′ Nucleotide position	GenBank accession
ZO-1	TCAAAGGGAAAGCCTCCTGA	4673–4692	NM_001330239.1
	ATACTGCGAGGGCAATGGAG	4780–4761	
ERG	CGCCGACATCCTTCTCTCAC	676–695	NM_001331025.1
	CCGTGGAGAGTTTTGTAAGGCT	775–754	
c-MYC	GCGAACACACAACGTCTTGG	1638–1657	NM_002467.4
	ACTACCTTGGGGGCCTTTTC	1751–1732	
NFATC1	GTGGTTGAGATCCCGCCATT	2048–2067	NM_001278675.1
	GTGAAACGCTGGTACTGGCT	2154–2135	
NFATC2	GGTCAGTCAAGGTCAGAGGC	2250–2269	NM_001258297.1
	CTTTGGCTCGTGGCATTCTG	2324–2305	
GAPDH	AGGCTGGGGCTCATTTGCAG	542–561	NM_001256799.2
	TGGTGGTGCAGGAGGCATTG	685–666	

Table S3. Primers for ChIP and re-ChIP

Name	Target gene	Oligonucleotide sequence forward, reverse	5′–3′ Nucleotide position	PCR products
ChIP	ZO-1	GCAGCTCTGGCGGACAT	-2804– −2787	
		CTCGCTCTCGGGAGATGTTTA	-2701– −2681	124bp
Re-ChIP	ZO-1	GCCTAGAACTAGGTGTGGTGTC	-107– −86	
		CTAGCATTTAAATTACACATTGGGC	0 – +22	130bp