

## KEY RESOURCES TABLE

REAGENT or RESOURCE	SOURCE	IDENTIFIER	Dilution
Antibodies			
Rabbit anti-Lamb1	Proteintech, Wuhan, China	23498-1-AP	1:500 (WB) 1:200 (IF) 1:50 (IP)
rabbit anti-Cofilin	Proteintech, Wuhan, China	10960-1-AP	1:1000 (WB)
Rabbit anti-Integrin $\beta$ 1	Proteintech, Wuhan, China	12594-1-AP	1:1000 (WB)
Rabbit anti- LIMK2	Proteintech, Wuhan, China	12350-1-AP	1:1000 (WB)
Mouse anti- $\beta$ -actin	Proteintech, Wuhan, China	66009-1-AP	1:4000 (WB)
Mouse anti-GAPDH	Proteintech, Wuhan, China	60004-1-Ig	1:4000 (WB)
Rabbit anti-Flotillin1	Proteintech, Wuhan, China	15571-1-AP	1:1000 (WB)
Rabbit anti-NR1	Abcam, Cambridgeshire, UK	ab17345	1:1000 (WB)
Rabbit anti-NR2B	Abcam, Cambridgeshire, UK	ab65783	1:1000 (WB)
Rabbit anti-RhoGAP	Abcam, Cambridgeshire, UK	ab32328	1:500 (WB)
Rabbit anti-RhoA	Abcam, Cambridgeshire, UK	ab187027	1:5000 (WB)
Rabbit anti-ROCK2	Abcam, Cambridgeshire, UK	ab125025	1:10000 (WB)
Mouse anti-Phosphotyrosine	Abcam, Cambridgeshire, UK	ab269515	1:5000 (WB) 1:50 (IP)
Rabbit anti-GluR1	Abcam, Cambridgeshire, UK	ab183797	1:1000 (WB)
Rabbit anti-GluR2	Abcam, Cambridgeshire, UK	ab206293	1:1000 (WB)
Rabbit anti-cofilin (Phospho-Ser3)	Signalway, College Park, MD, USA	11139	1:1000 (WB)
Mouse anti-LIMK-1	SANTA CRUZ, Dallas, TX, USA	sc-515585	1:1000 (WB)
Rabbit anti-Src	Cell Signaling Technology, Boston, MA, USA	2109	1:1000 (WB)
Rabbit anti-Phospho-Src (Tyr416)	Cell Signaling Technology, Boston, MA, USA	6943	1:1000 (WB)

Rabbit anti-PSD95	GeneTex, San Antonio, TX, USA	GTX133255	1:1000 (WB)
Mouse anti-NeuN	Abcam, Cambridgeshire, UK	ab104224	1:200 (IF)
Mouse anti-GFAP	Abcam, Cambridgeshire, UK	ab4648	1:200 (IF)
Goat anti-Iba1	Abcam, Cambridgeshire, UK	ab5076	1:200 (IF)
Mouse anti-CaMKII	Abcam, Cambridgeshire, UK	ab22609	1:200 (IF)
Mouse anti-GAD67	Abcam, Cambridgeshire, UK	ab26116	1:200 (IF)
Anti-rabbit IgG,HRP-linked Antibody	Cell Signaling Technology, Boston, MA, USA	7074	1:4000 (WB)
Anti-mouse IgG,HRP-linked Antibody	Cell Signaling Technology, Boston, MA, USA	7076	1:4000 (WB)
Goat anti-Rabbit IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa	Invitrogen, Carlsbad, CA, USA	A11034	1:800 (IF)
Donkey anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor 594	Invitrogen, Carlsbad, CA, USA	A21203	1:800 (IF)
Donkey anti-Goat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 594	Invitrogen, Carlsbad, CA, USA	A11058	1:800 (IF)

#### Chemicals, Peptides and Recombinant Proteins

Hoechst	Sigma-Aldrich, St. Louis, MO, USA	94403	1:1000 (IF)
Phalloidin	Solarbio, Beijing, China	CA1670	1:100 (IF)
Pyrintegrin	MCE, Monmouth Junction, NJ, USA	HY-13306	1 mM
Corticosterone	Solarbio, Beijing, China	C9480	0.1 mg/ml
NMDA	Sigma-Aldrich, St. Louis, MO, USA	M3262	50 $\mu$ M
AMPA	Sigma-Aldrich, St. Louis, MO, USA	A6816	50 $\mu$ M
QX314	Sigma-Aldrich, St. Louis, MO, USA	L5783	5 mM
AP5	Sigma-Aldrich, St. Louis, MO, USA	A8054	50 $\mu$ M
Picrotoxin	Sigma-Aldrich, St. Louis, MO, USA	R284556	100 $\mu$ M

complete Freund' s	Sigma-Aldrich, St. Louis, MO, USA	F5881	1 mg/ml
Virus Strains			
rAAV2/9-U6-shRNA(scramble)-CMV-EGFP-SV40pA	BrainVTA, Wuhan, China	PT-0916	
rAAV2/9-U6-shRNA (Lamb1)-CMV-EGFP-SV40pA	BrainVTA, Wuhan, China	PT-2272	
LV-U6-shRNA (Scramble)-CMV-EGFP-WPRE	BrainVTA, Wuhan, China	LV-0141	
LV-U6-shRNA (Lamb1)-CMV-EGFP-WPRE	BrainVTA, Wuhan, China	LV-0314	
rAAV2/9-U6-shRNA (scramble)-CMV-mCherry-SV40pA	BrainVTA, Wuhan, China	PT-0923	
rAAV2/9-U6-shRNA (Lamb1)-CMV-mCherry-SV40pA	BrainVTA, Wuhan, China	PT-2329	
rAAV2/9-CaMKIIa-GCaMP6s-WPRE-pA	BrainVTA, Wuhan, China	PT-0110	
rAAV2/9-U6-shRNA(ITGB1)-CMV-mCherry-SV40pA	BrainVTA, Wuhan, China	PT-3567	