

Supplemental table 1: Reagents and resources.

REAGENT	RESOURCE	IDENTIFYER
Antibodies		
Mouse mAB anti-GluR1-N terminus, clone RH95; AB feeding 1:100	Millipore	Cat# MAB2263; RRID:AB_11212678
Guinea Pig pAB anti-Shank2; IF 1:2000	Synaptic Systems	Cat# 162 204, RRID:AB_2619861
Goat anti-Mouse AlexaFluor™ Plus647; IF 1:2000	Thermo Fisher Scientific	Cat#A32728; RRID:AB_2633277
Goat anti-Guinea Pig DyLight 405-AffiniPure; IF 1:800	Jackson ImmunoResearch Labs	Cat# 106-475-003; RRID:AB_2337432
Mouse mAB anti-CrkL; WB 1:1000	Cell Signaling Technology	Cat# 3182, RRID:AB_10693644
Rabbit anti-Phospho-CrkL (Tyr207); WB 1:1000	Cell Signaling Technology	Cat# 3181, RRID:AB_331068
Rabbit pAb anti-GAPDH; WB1:2000	Sigma-Aldrich	Cat#G9545; RRID:AB_796208
Mouse anti-GFP; WB 1:2000	Roche	Cat#11814460001; RRID:AB_390913
Mouse mAB Anti- β -III-tubulin (TU-20); WB 1:1000	Thermo Fisher Scientific	Cat# MA1-19187, RRID:AB_1070721
Rabbit mAB anti-Rab5; WB 1:1000	Cell Signaling Technology	Cat# 3547, RRID:AB_2300649
Peroxidase AffiniPure™ Goat Anti-Mouse IgG(H+L); WB1:10000	Jackson ImmunoResearch	Cat#115-035-062; RRID:AB_2338504
Peroxidase AffiniPure™ Goat Anti-Rabbit IgG(H+L); WB1:10000	Jackson ImmunoResearch	Cat#111-035-144; RRID:AB_2307391
Bacterial and virus strains		
Escherichia coli DH5 α	Thermo Fisher	Cat# 18265017
ssAAV-9/2-hSyn1-EGFP-WPRE-hGHp(A)	Viral Vector Facility, University of Zurich	Cat# v81-9
AAV-CAG-hChr2(H134R)-mCherry	Penn Vector Core	Lot# CS0144
rAAV9-Syn-EGFP-C2-hRIN1	Universitätsklinikum Hamburg-Eppendorf	N/A
rAAV9-Syn-EGFP-C2-hRIN1 S351A	Universitätsklinikum Hamburg-Eppendorf	N/A
rAAV9-Syn-EGFP-C2-hRIN1 S292A	Universitätsklinikum Hamburg-Eppendorf	N/A
rAAV9-Syn-EGFP-C2-hRIN1 QM	Universitätsklinikum Hamburg-Eppendorf	N/A
rAAV9-Syn-EGFP-C2-hRIN1 E574A	Universitätsklinikum Hamburg-Eppendorf	N/A
Chemicals, peptides, and recombinant proteins		
NMDA	Sigma	#M3262
Glycin	Roth	EG-Nr. 200-272-2
TRIzol	Invitrogen	Cat #15596026
Horse serum	Gibco	#26050-088

Picrotoxin	Sigma-Aldrich	P1675-5G
Tetrodotoxin	Alomone labs	T-550
2-Chloroadenosine	Sigma-Aldrich	C5134-50MG
Commercial assays		
NucleoSpin RNA Isolation Mini Kit	Macherey-Nagel	Cat #740955
Power SYBR™ Green RNA-to-CT™ 1-Step-Kit	Applied Biosystem	Cat #4389986
Cell lines		
HEK293T	CLS	Cat# 300189; RRID:CVCL_0063
Oligonucleotides		
RIN1 Forward: GCCTTGTTGAGTGGCCT AA	Biomers.net	N/A
RIN1 Reverse: TCGGAGGAGATGCTGG AA		
RIN2 Forward: CGGAGAAGGAGGCTAT TACTTG	Biomers.net	N/A
RIN2 Reverse: ATAGTTCGGTTGGTGGT TCTC		
RIN3 Forward: CTGTGCTCATGTACGTG CT	Biomers.net	N/A
RIN3 Reverse: GGTCAGATAGTAGGAAC CCTCT		
RINL Forward: CAGCTGGATGTGGAGTT TCT	Biomers.net	N/A
RINL Reverse: GGTAGTGAGCAATGTG GTAGAG		
GluA1 Forward: ATGCTGACCTCCTTCTG TGG	Biomers.net	N/A
GluA1 Reverse: TGCCACTTGTAATGGTC GAT		
GAPDH (mouse) primers	Qiagen	Cat #249900
Recombinant DNA		
pEGFP-C2 hRIN1 292A	Ziegler et al, 2011	N/A
pEGFP-C2 hRIN1 S351A	Ziegler et al, 2011	N/A
pEGFP-C2 hRIN1 wt	Ziegler et al, 2011	N/A
pEGFP-C2-hRIN1 QM	Sziber et al, 2017	N/A
pEGFP-C2-hRIN1 E574A	Sziber et al, 2017	N/A
pEGFP-C2-Vector	Clontech	N/A
pEGFP-C3-hRab 5a	Sönnichsen et al, 2000	N/A
Software and algorithms		
Fiji	https://imagej.net/software/fiji/	RRID:SCR_002285
GraphPad Prism (Version 11)	GraphPad Software Inc.	RRID:SCR_002798

Zeiss Zen Lite	Carl Zeiss	RRID:SCR_023747
Zeiss ZEN (blue edition)	CarlZeiss	RRID:SCR_013672
Ilastik	https://www.ilastik.org/	RRID:SCR_015246
CFX96 Real-Time PCR Detection System	Bio-Rad	Cat #12011319; RRID:SCR_018064
Primer Quest Tool	Integrated DNA Technologies	https://eu.idtdna.com/PrimerQuest/Home/Index
NanoDrop ND-1000 Spectrophotometer	Thermo Fisher	RRID:SCR_016517
pClamp	Molecular Devices	RRID:SCR_011323
IGOR Pro 9	WaveMetrics	RRID:SCR_000325
NeuroMatic	http://www.neuromatic.thinkrandom.com/	RRID:SCR_004186
Easy Electrophysiology	https://www.easyelectrophysiology.com/	RRID:SCR_021190