

Supplementary table 2: Details of statistical analyses for the supplemental figures								
Figure	Data type	Sample size (n, N) n = individual experiments, N = sample size	Statistical test	Statistics (df)	P value	Level	Effect size	CI 95%
1A	Median ± SEM	BL/6 vs RIN1-KO: n = 9, 8 mice	Mann-Whitney test	U=0	<0.001	Animal	η²=-0.005	-0.006 to -0.004
1B	Median ± SEM	BL/6 vs RIN1-KO: n = 9, 8 mice	Mann-Whitney test	U=32	0.743	Animal	η²=-0.002	-0.035 to 0.004
1C	Median ± SEM	BL/6 vs RIN1-KO: n = 9, 8 mice	Mann-Whitney test	U=19	0.114	Animal	η²=-0.0003	-0.001 to 0.0001
1D	Median ± SEM	BL/6 vs RIN1-KO: n = 9, 8 mice	Mann-Whitney test	U=28	0.481	Animal	η²=-0.000043	-0.001 to 0.0002
2B	Mean ± SEM	RIN1-KO vs WT: n = 5 mice, N = 22 pairs	Paired t test	t21=1.248	0.226	Neuron	Cohen dz = 0.266	-0.434 to 1.736
2C	Mean ± SEM	RIN1-KO vs WT: n = 5 N = 22 pairs	Paired t test	t21=1.022	0.319	Neuron	Cohen dz = 0.218	-0.632 to 1.853
2G	Individual paired values	RIN1 KO vs WT: n = 4 mice, 7 pairs	Paired t-test					
		AMPA EPSC		t(6)=0.279	0.789	Neuron	η²=0.013	-29.92 to 23.79
		NMDA EPSC		t(6)=0.686	0.519	Neuron	η²=0.073	-19.90 to 11.19
2H	Individual paired values	RIN1 KO vs WT: n = 4 mice, 7 pairs	Paired t-test	t(6)=0.398	0.704	Neuron	η²=0.026	-0.7485 to 1.040
2J	Individual paired values	RIN1 KO vs WT: n = 4 mice, 5 pairs	Paired t-test					
		AMPA EPSC		t(4)=0.259	0.808	Neuron	η²=0.016	-18.97 to 15.73
		NMDA EPSC		t(4)=0.503	0.642	Neuron	η²=0.059	-24.67 to 17.11
2K	Individual paired values	RIN1 KO vs WT: n = 4 mice, 5 pairs	Paired t-test	t(4)=0.425	0.693	Neuron	η²= 0.043	-0.7135 to 0.5240
4A	Median ± SEM	BL/6 vs RIN1-KO: n = 9, 7 mice	Unpaired t-test	t(14)=1.490	0.159	Animal	η²=0.137	-0.661 to 0.119
4B	Mean ± SEM	BL/6 vs RIN1-KO: n = 2, 2 independent cultures	Mann-Whitney test	U=1	0.667	Animal	η²=-0.019	-0.058 to 0.019
4D	Median ± SEM	BL/6 vs RIN1-KO n = 7, 7 mice	Mann-Whitney test	U=12	0.128	Animal	rank-biserial r=0,51	-0,143 to 0,959
4E	Median ± SEM	BL/6 vs RIN1-KO: n = 7, 7 mice	Mann-Whitney test	U=23	0.901	Animal	rank-biserial r=-0.061	-0.673 to 0.592
5B - D	Mean ± SEM	n = 3	Welch's test					
		RIN1-KO: Control vs 1h		t(4.0) = −0.38	0.726	Replicate	mean diff = −0.078	−0.650 to 0.495
		WT: Control vs 1h		t(4.0) = 25.67	< 0.0001	Replicate	mean diff = 0.355	0.317 to 0.394
		E574A: Control vs 1h		t(4.0) = −1.96	0.122	Replicate	mean diff = -0.192	−0.465 to 0.080
6A	Median, IQR	n = 3	Kruskal-Wallis test followed by Dunn's post-hoc test	H(2)=16.94	0.0001	Dendrite	rank-biserial r=0.574	0.34 to 0.775
		Animal				rank-biserial r=1.0	1 to 1	
		BL/6: Control vs 15 min N = 31, 35 dendrites			0.444	Dendrite	rank-biserial r=0.231	-0.068 to 0.524
						Animal	rank-biserial r=0.333	-1 to 1
		BL/6: Control vs 1h N = 31, 27 dendrites			0.045	Dendrite	rank-biserial r=-0.369	-0.615 to -0.096
						Animal	rank-biserial r=-0.333	-1 to 0.778

Figure	Data type	Sample size (n, N) n = individual experiments, N = sample size	Statistical test	Statistics (df)	P value	Level	Effect size	CI 95%
6B	Frequency distribution	n = 3	Kolmogorov-Smirnov test					
		BL/6: Control vs 15 min, N = 31, 35 dendrites		D=0.499	0.0005	Dendrite		
		BL/6: Control vs 1 h, N = 31, 27 dendrites		D=0.315	0.113	Dendrite		
		BL/6: 15 min vs 1h, N = 35, 27 dendrites		D=0.343	0.056	Dendrite		
6C	Median, IQR	n = 3	Kruskal-Wallis test followed by Dunn's post-hoc test	H(2)=18.83	<0.0001	Dendrite	rank-biserial r=0.596	0.368 to 0.796
		RIN1-KO: Control vs 15 min N = 43, 26 dendrites				Animal	rank-biserial r=0.778	0.111 to 1
		RIN1-KO: Control vs 1h N = 43, 20 dendrites			>0.999	Dendrite	rank-biserial r=0.151	-0.147 to 0.44
						Animal	rank-biserial r=0.556	-0.333 to 1
		RIN1-KO: 15 min vs 1h N = 26, 20 dendrites			0.013	Dendrite	rank-biserial r=-0.538	-0.785 to -0.25
						Animal	rank-biserial r=-0.556	-1 to 0.333
6D	Frequency distribution	n = 3	Kolmogorov-Smirnov test					
		RIN1-KO: Control vs 15 min, N = 43, 26 dendrites		D=0.445	0.003	Dendrite		
		RIN1-KO: Control vs 1 h, N = 43, 20 dendrites		D=0.241	0.402	Dendrite		
		RIN1-KO: 15 min vs 1h N = 26, 20 dendrites		D=0.435	0.028	Dendrite		
6E	Median, IQR	n = 3	Kruskal-Wallis followed by Dunn's post-hoc test	H(2)=19.68	<0.0001	Dendrite	rank-biserial r=0.593	0.358 to 0.791
		WT: Control vs 15 min, N = 38, 29 dendrites				Animal	rank-biserial r=1	1 to 1
		WT: Control vs 1h, N = 38, 25 dendrites			0.024	Dendrite	rank-biserial r=0.427	0.164 to 0.669
						Animal	rank-biserial r=1	1 to 1
		WT: 15 min vs 1h, N = 36, 25 dendrites			0.067	Dendrite	rank-biserial r=-0.266	-0.556 to 0.034
						Animal	rank-biserial r=-0.111	1 to 1
6F	Frequency distribution	n = 3	Kolmogorov-Smirnov test					
		WT: Control vs 15 min, N = 38, 36 dendrites		D=0.485	0.0009	Dendrite		
		WT: Control vs 1 h, N = 38, 25 dendrites		D=0.418	0.010	Dendrite		
		WT: 15 min vs 1h, N = 36, 25 dendrites		D=0.368	0.052	Dendrite		
6G	Median, IQR	n = 3	Kruskal-Wallis followed by Dunn's post-hoc test	H(2)=32.14	<0.0001	Dendrite	rank-biserial r=0.672	0.424 to 0.879
		E574A: Control vs 15 min, N = 39, 25 dendrites				Animal	rank-biserial r=1	1 to 1
		E574A: Control vs 1h, N = 39, 29 dendrites			<0.0001	Dendrite	rank-biserial r=0.696	0.492 to 0.864
						Animal	rank-biserial r=1	1 to 1
		E574A: 15 min vs 1h, N = 25, 29 dendrites			>0.999	Dendrite	rank-biserial r=-0.233	-0.539 to 0.09
						Animal	rank-biserial r=0.111	-1 to 1
6H	Frequency distribution	n = 3	Kolmogorov-Smirnov test					
		E574A: Control vs 15 min, N = 39, 25 dendrites		D=0.628	<0.0001	Dendrite		
		E574A: Control vs 1h, N = 39, 29 dendrites		D=569	<0.0001	Dendrite		
		E574A: 15 min vs 1h, N = 25, 29 dendrites		D=0.337	0.095	Dendrite		