

Supplementary file

Supplementary Figure 1

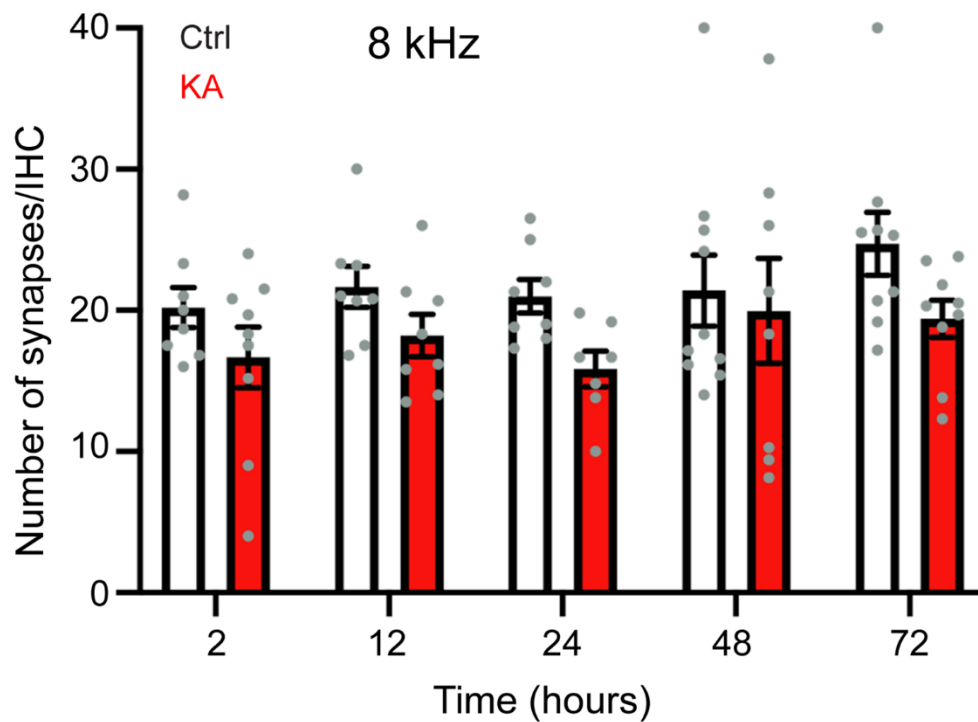


Figure S1: Kainate did not affect IHC synapse at cochlear apical region

Counting of the IHC synapses (paired CtBP2-PSD95) over time in cochlear region coding 8 KHz in control condition (black) and KA condition (red). All data are expressed as mean \pm SEM ($n = 6-10$ cochleae per condition). One way ANOVA test was followed by Dunn's test.

Supplementary Figure 2

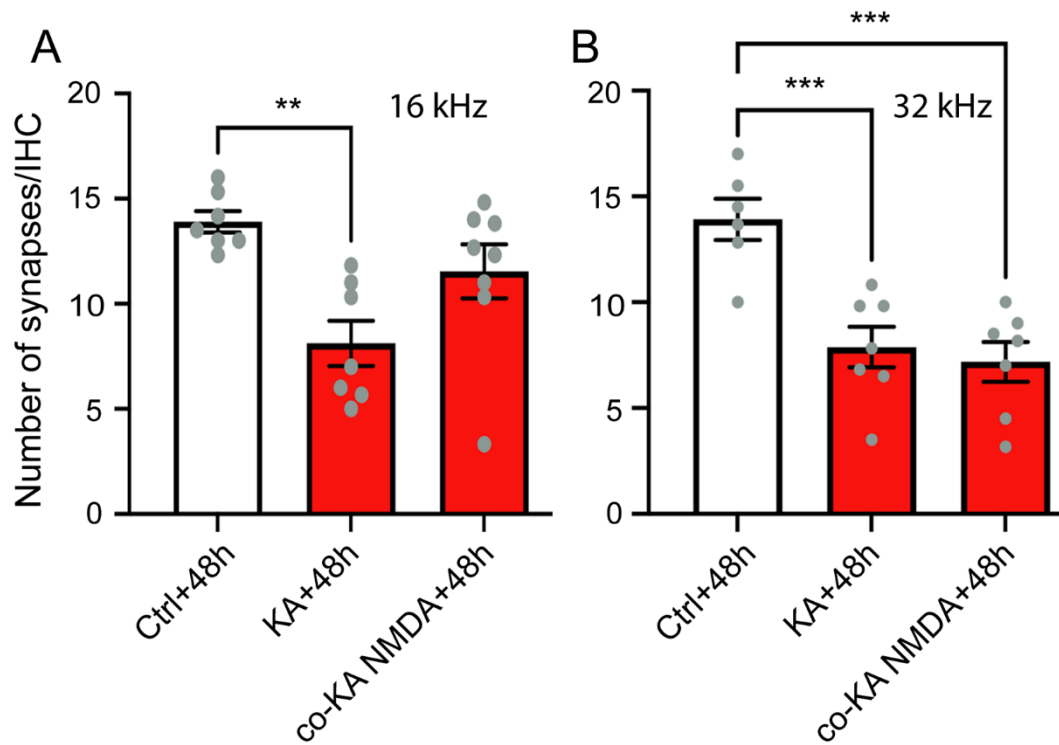


Figure S2: Addition of NMDA did not modify the effect of kainite on IHC synapses

A-B: Quantification of synapses (paired CtBP2-PSD95) per IHC in cochlear regions coding 16 KHz (**A**) and 32 KHz (**B**) of explants exposed to medium alone for 2 h + 48 h (Ctrl + 48 h), medium containing KA or KA in combination with NMDA at 0.5mM respectively for 2 h then medium alone for 48 h (KA + 48 h) or (co-KA NMDA+48h). All data are expressed as mean \pm SEM (n = 6-7 cochleae per condition). One way ANOVA test was followed by Dunn's test: ** $p \leq 0.01$, *** $p \leq 0.001$.

Supplementary Table 1

	target name	Antibody	Species	Isotype	Cat Number	Company	Dilution
IF Primary antibodies	V-GLUT 3	Anti-VGLUT3	guinea pig	IgG	135204 RRID:AB_2619825	Synaptic Systems	1/500
	Neurofilament 200	Anti-NF200	rabitt	IgG	N0142 RRID:AB_477257	Sigma-Aldrich	1/400
	Cytochrome c oxidase	Anti-cytochrome c oxidase	mouse	IgG	556432 RRID:AB_396416	BD Biosciences	1/200
	BDNF	anti-BDNF	rabitt	IgG	ab223354	Abcam	1/500
	TrkB	anti-TrkB	rabitt	IgG	ab18987 RRID:AB_444716	Abcam	1/500
	CtBP2(ribbon)	anti-CtBP2	mouse	IgG1	612044 RRID:AB_399431	BD Biosciences	1/500
	PSD95(post synapytic density)	anti-PSD95	mouse	IgG2a	75-028 RRID:AB_2292909	NeuroMab	1/500
IF Secondary Antibodies & Fluorescent		anti-guinea pig ,Alexa 488	goat	IgG	A-11073 RRID: AB_2534117	Molecular Probes	1/1000
		anti-mouse, Alexa 488	donkey	IgG	A-21202 RRID: AB-141607	Molecular Probes	1/1000
		anti-rabbit,Alexa 594	donkey	IgG	A-21207, RRID:AB_141637	Molecular Probes	1/1000
		anti-mouse IgG1,Alexa 488	goat	IgG	A21121 RRID:AB_2535764	Molecular Probes	1/1000
		anti-mouse IgG2a, Alexa 568	goat	IgG	A21134 RRID:AB_2535773	Molecular Probes	1/1000
		anti-guinea pig, Alexa 647	goat	IgG	A21450 RRID:AB_2535867	Molecular Probes	1/1000
	Hoechst 33342				#62249	Thermo Fisher Scientific	1/5000
	Actin - Alexa 647 phalloidin				#A22287	Thermo Fisher Scientific	1/1000

Table S1. Shown are the antibodies used and basic information about these antibodies.

Supplementary Table 2

	Track1	Track2	Track3	Track4
	Chanel1	Chanel2	Chanel3	Chanel4
Contrast method	fluorescence	fluorescence	fluorescence	fluorescence
Pinhole	0,99 AU	1 AU	0,99 AU	1 AU
Laser wavelength	405nm:0,4%	488: 2,40%	561nm: 2,40%	633nm:1,80%
Scan mode	Frame	Frame	Frame	Frame
Scan zoom	2,2	2,2	2,2	2,2
Pixel time	1,02 μ s	1,02 μ s	1,02 μ s	1,02 μ s
Line time	0,24 μ s	0,24 μ s	0,24 μ s	0,24 μ s
Frame time	2,90 s	2,90 s	2,90 s	2,90 s
Scan direction	unidirectional	unidirectional	unidirectional	unidirectional
Averaging	2	2	2	2
Speed	7	7	7	7
Chanel name	Ch2GaAsP-T1	Ch2GaAsP-T2	Ch2GaAsP-T3	Ch2GaAsP-T3
Chanel color	Blue	Green	Red	Magenta
Excitation wavelength	405	488	561	633
Emission wavelength	453	519	600	707
Effective NA	1,4	1,4	1,4	1,4
Detection wavelength	415-490	498-541	570-630	660-754
Detector gain	500	500	500	540
Detector offset	0	0	0	0
Detector digital gain	1	1	1	1

Table S2. Shown are the parameters used for confocal image acquisitions.