Tat-NR2Baa

Cat. No.:	HY-P2307
CAS No.:	847829-41-8
Molecular Formula:	$C_{103}H_{184}N_{42}O_{29}$
Molecular Weight:	2474.83
Sequence:	Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-Lys-Leu-Ser-Ser-Ile-Glu-Ala-Asp-Ala
Sequence Shortening:	YGRKKRRQRRRKLSSIEADA
Target:	iGluR; NO Synthase
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Immunology/Inflammation
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

BIOLOGICAL ACTIVITY

Description	Tat-NR2BAA is the control peptide of Tat-NR2B9c (HY-P0117), inactive. The sequence of Tat-NR2BAA is similar to Tat-NR2B9c, but it has a double-point mutation in the COOH terminal tSXV motif, making it incapable of binding PSD-95. Tat-NR2B9c is a membrane-permeant peptide and disrupts PSD-95/NMDAR binding, correlate with uncoupling NR2B- and/or NR2A-type NMDARs from PSD-95[1][2].
IC_{50} & Target	NMDA Receptor
In Vitro	Tat-NR2BAA (125 ng; 20 mins) does not effects interactions between PSD-95 and NR2B subunits. In contrast, coimmunoprecipitation of PSD-95 with NR2B subunits is markedly decreased in rats pretreated with the disrupting peptide Tat-NR2B9c in lumbar dorsal horn tissue[1]. Tat-NR2Baa (125 ng or 1.25 μg; 20 minutes before collection of lumbar dorsal horn tissue) is the control group of Tat-NR2B9c. Tat-NR2B9c produces a significant and robust reduction of postdischarge, indicating the hyperexcitability of the cell. But Tat-NR2Baa has no effects, even at a dose 100× greater than the active peptide Tat-NR2B9c (HY-P0117)[1]. Tat-NR2Baa (1 μM; pre-treatment 1 hour) is the control group in the Co-IP assay. Tat-NR2B9c (1 μM) disrupts NR2B/PSD95 interaction, and the coupling of NR2B to PSD-95 is more sensitive than NR2A/PSD95 to disruption in hippocampal neurons[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Michelle Aarts, et al. Treatment of Ischemic Brain Damage by Perturbing NMDA Receptor- PSD-95 Protein Interactions. Science

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA