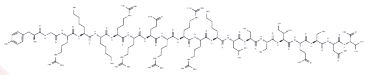
Data Sheet (Cat.No.T13112)

TargetMol

Tat-NR2B9c

Chemical Properties



CAS No. : 500992-11-0

Formula: C105H188N42O30

Molecular Weight: 2518.88

Storage: Keep away from moisture,Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Tat-NR2B9c (NA-1) is a postsynaptic density-95 (PSD-95) inhibitor with neuroprotective and antiepileptic effects.Tat-NR2B9c inhibits PSD-95d2, PSD-95d1, and PSD-95, which prevents the activation of NMDA-induced NADPH oxidase in neurons, thereby blocking the production of superoxide, which reduces ischemic injury in the acute phase after stroke.
Targets(IC50)	NO Synthase,iGluR
In vitro	Similar to the NR2 subunits, Tat-NR2B9c binds to PSD-95d1 and PSD-95d2, and this binding is independent of PDZ interactions, with respective ED50 values of 0.67 μM and 0.067 μM[2].
In vivo	Tat-NR2B9c (10 nmol/g, IV) reduced infarct volume by 24.5% and 26.0% following 30 and 60 minutes of tMCAO, respectively, but had no effect on mice at a dose of 3 nM/g[3].

Solubility Information

Solubility	H2O: 80 mg/mL (31.76 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.397 mL	1.985 mL	3.970 mL
5 mM	0.0794 mL	0.397 mL	0.794 mL
10 mM	0.0397 mL	0.1985 mL	0.397 mL
50 mM	0.0079 mL	0.0397 mL	0.0794 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Cui H, et al. PDZ protein interactions underlying NMDA receptor-mediated excitotoxicity and neuroprotection by PSD-95 inhibitors. J Neurosci. 2007 Sep 12;27(37):9901-15.
Fan J, et al. P38 MAPK is involved in enhanced NMDA receptor-dependent excitotoxicity in YAC transgenic mouse model of Huntington disease. Neurobiol Dis. 2012 Mar;45(3):999-1009.
Teves LM, et al. Efficacy of the PSD95 inhibitor Tat-NR2B9c in mice requires dose translation between species. J Cereb Blood Flow Metab. 2016 Mar;36(3):555-61.
Jing Fan, et al. N-methyl-D-aspartate Receptor Subunit- And Neuronal-Type Dependence of Excitotoxic Signaling Through Post-Synaptic Density 9. J Neurochem. 2010 Nov;115(4):1045-56.

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