Data Sheet (Cat.No.TP4023)

TargetMol

PSD-95/nNOS PPI-IN-1

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Keep away from moisture
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	PSD-95/nNOS PPI-IN-1 is an inhibitor targeting the interaction between PSD-95 and nNOS, potentially crossing the blood-brain barrier. It binds with high affinity to the PSD-95 PDZ2 domain (Ki= 19.45 μM). By reducing intracellular ROS levels and inhibiting apoptosis, it counteracts glutamate-induced excitotoxicity. In rat tMCAO models, PSD-95/nNOS PPI-IN-1 significantly decreases brain infarct volume. This compound is useful for research in acute ischemic stroke.
Targets(IC50)	Apoptosis,NO Synthase,iGluR
In vitro	PSD-95/nNOS PPI-IN-1 (Compound 32-2), when pre-treated at concentrations of 0.1-10 μM for 2 hours, markedly enhances cell viability in HT22 cells injured with glutamate. At concentrations of 10-20 μM with the same pre-treatment duration, it significantly boosts cell viability in glutamate-damaged primary cortical neurons cultured for 9 days. Additionally, a 10 μM concentration administered for 2 hours notably reduces intracellular ROS levels induced by glutamate in HT22 cells. This compound also significantly increases Bcl-2 protein expression and decreases Bax and cleaved-caspase 3 protein expression in glutamate-treated HT22 cells.
In vivo	Compound PSD-95/nNOS PPI-IN-1 (Compound 32-2) administered intravenously at a dose of 8 mg/kg significantly reduces cerebral infarct volume in SD rats when given once, 2 hours after reperfusion.