

TrkB-IN-1

Chemical Properties

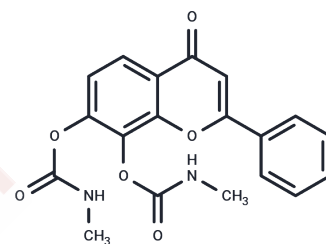
CAS No. : 1609067-49-3

Formula: C₁₉H₁₆N₂O₆

Molecular Weight: 368.34

Storage: 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	TrkB-IN-1 is a potent, orally active agonist of the TrkB receptor, with favorable pharmacokinetic (PK) properties. It has been shown to reverse cognitive deficits in an Alzheimer's disease (AD) mouse model, thus serving as a valuable tool for Alzheimer's disease research [1].
Targets(IC50)	Trk receptor
In vivo	TrkB-IN-1, administered to 5XFAD mice via oral gavage at doses of 7.25 mg/kg, 21.8 mg/kg, and 43.6 mg/kg over three months, dose-dependently activated the TrkB signaling cascade in the hippocampus, with corresponding increases in the ratios of p-TrkB/TrkB, p-Akt/Akt, and p-ERK/ERK [1]. Additionally, a five-day treatment with TrkB-IN-1 at the same doses attenuated A β deposition and ameliorated memory deficits in the 5XFAD mice [1]. Pharmacokinetic parameters for TrkB-IN-1, at an oral gavage dose of 36 mg/kg, revealed an oral bioavailability of 10.5%, a C _{max} of 129 ng/mL, a T _{max} of 0.5 h, and a T _{1/2} of 3.66 h [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7149 mL	13.5744 mL	27.1488 mL
5 mM	0.543 mL	2.7149 mL	5.4298 mL
10 mM	0.2715 mL	1.3574 mL	2.7149 mL
50 mM	0.0543 mL	0.2715 mL	0.543 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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