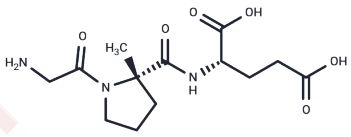
Data Sheet (Cat.No.T17171)

TargetMol

Trofinetide

Chemical Properties



CAS No. : 853400-76-7

Formula: C13H21N3O6

Molecular Weight: 315.32

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

Biological Description

Description	Trofinetide (NNZ-2566) is a synthetic analog of the endogenous N-terminus tripeptide. It has been shown to be neuroprotective in animal models of brain injury.
Targets(IC50)	Others,iGluR
In vivo	Trofinetide treatment suppresses IL-1β expression in the injured brain hemisphere for up to 7 days post-PBBI. Trofinetide suppresses penetrating ballistic-like brain injury-induced inflammatory cell infiltration at 3 days following PBBI as compared to vehicle treatment. All doses of Trofinetide completely suppress the delayed occurrence of NCS as compare with the vehicle-treated animals. Trofinetide treatment produces significant reductions in the injury-induced up-regulation of IL-1β, INF-γ, and TNF-α expression. Trofinetide treatment significantly decreases the elevation of IL-6 (79%), E-selectin (81%), IL-1β (76%), and TNF-α (72%) mRNA levels in the injured hemisphere at 12 h post-PBBI, with maximal inhibition occurring between 12 h and 24 h. The high doses of Trofinetide (10 and 100 mg/kg bolus followed by continuous infusion) attenuate non-convulsive seizure (NCS) occurring beyond 2 h after permanent middle cerebral artery occlusion [1][2].

Solubility Information

Solubility	H2O: 44 mg/mL (139.54 mM),Sonication is recommended. DMSO: 71.43 mg/mL (226.53 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1714 mL	15.8569 mL	31.7138 mL
5 mM	0.6343 mL	3.1714 mL	6.3428 mL
10 mM	0.3171 mL	1.5857 mL	3.1714 mL
50 mM	0.0634 mL	0.3171 mL	0.6343 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

Wei HH, et al. NNZ-2566 treatment inhibits neuroinflammation and pro-inflammatory cytokine expression induced by experimental penetrating ballistic-like brain injury in rats. J Neuroinflammation. 2009 Aug 5;6:19.
Lu XC, et al. NNZ-2566, a glypromate analog, attenuates brain ischemia-induced non-convulsive seizures in rats. J Cereb Blood Flow Metab. 2009 Dec;29(12):1924-32.