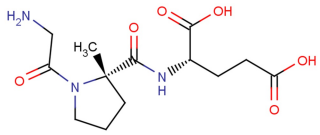
Data Sheet (Cat.No.T17171)

TargetMol
A DRUG SCREENING EXPERT

Trofinetide

Chemical Properties



CAS No.:	853400-76-7
Formula:	C13H21N3O6
Molecular Weight:	315.32
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Trofinetide is a synthetic analog of the endogenous N-terminus tripeptide. It has been shown to be neuroprotective in animal models of brain injury.
Targets(IC_{50})	Others: None
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: 50 mg/mL (158.57 mM) H2O: 44 mg/mL (139.54 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.171 mL	15.857 mL	31.714 mL
5 mM	0.634 mL	3.171 mL	6.343 mL
10 mM	0.317 mL	1.586 mL	3.171 mL
50 mM	0.063 mL	0.317 mL	0.634 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. 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.

1. 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.

2. 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):1924-3

2. 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.

Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481