

TC OT 39

Chemical Properties

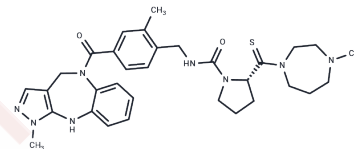
CAS No. : 479232-57-0

Formula: C₃₂H₄₀N₈O₂S

Molecular Weight: 600.78

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	TC OT 39 is an oxytocin analog and selective agonist of OXTR (oxytocin receptor) (EC ₅₀ =180 nM), also acting as a V1aR (vasopressin 1a receptor) antagonist. It mimics oxytocin-induced scratching in mouse models.
Targets(IC50)	Vasopressin Receptor, Oxytocin Receptor
In vivo	TC OT 39 (50 mg/kg, 75 mg/kg; intraperitoneal injection; 4 injections over 8-9 days) markedly reduced marble burying behavior in mice at 50 mg/kg and exhibited pronounced sedation at 75 mg/kg [1]. TC OT 39 (0.1 nmol; intraspinal injection; single dose) mimicked oxytocin-induced scratching in mice [2].

Solubility Information

Solubility	DMSO: 20 mg/mL (33.29 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6645 mL	8.3225 mL	16.645 mL
5 mM	0.3329 mL	1.6645 mL	3.329 mL
10 mM	0.1665 mL	0.8323 mL	1.6645 mL
50 mM	0.0333 mL	0.1665 mL	0.3329 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

Moy SS, et al. Prosocial effects of an oxytocin metabolite, but not synthetic oxytocin receptor agonists, in a mouse model of autism. *Neuropharmacology*. 2019;144:301-311.

Guo J, et al. Oxytocin Elicits Itch Scratching Behavior via Spinal GRP/GRPR System. *Front Neurosci*. 2020;14:581977. Published 2020 Sep 23.

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