

Nemifitide diTFA

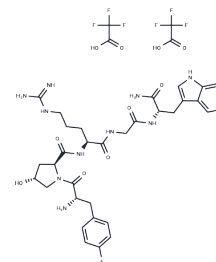
Chemical Properties

CAS No. : 204992-09-6

Formula: C37H45F7N10O10

Molecular Weight: 922.8

Storage: Store at low temperature, Keep away from direct sunlight, 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	Nemifitide diTFA (INN 00835 diTFA) is a synthetic pentapeptide that can cross the blood-brain barrier and acts as a potent antidepressant, similar to melanocyte suppressor factor (MIF).
Targets(IC50)	5-HT Receptor
In vitro	Nemifitide diTFA (INN 00835 diTFA) and its active metabolite (M1) bind to multiple receptors, including 5-HT2A, 5-HT2C, melanocortin MC4, MC5, and bombesin, at micromolar concentrations[2].
In vivo	Administered intraperitoneally at a dose of 0.3 mg/kg daily for 14 days, Nemifitide diTFA (INN 00835 diTFA) significantly increases swimming behavior in the FSL rats after just 5 days of treatment, and this effect has a long-lasting duration[2]. Moreover, across a range of doses (0.0125-15.0 mg/kg), Nemifitide diTFA demonstrates a significant increase in swimming behavior in FSL rats at both low (0.025-0.3 mg/kg) and high (3.0-15.0 mg/kg) doses, but not at intermediate (0.4-2.4 mg/kg) doses[3].

Solubility Information

Solubility	DMSO: 200 mg/mL (216.73 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	1.0837 mL	5.4183 mL	10.8366 mL
5 mM	0.2167 mL	1.0837 mL	2.1673 mL
10 mM	0.1084 mL	0.5418 mL	1.0837 mL
50 mM	0.0217 mL	0.1084 mL	0.2167 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

Kelly JP, et al. The effect of treatment with a new antidepressant, INN 00835, on platelet serotonin uptake in depressed patients. *J Affect Disord.* 1999 Oct;55(2-3):231-5.

Montgomery SA, et al. Efficacy and safety of 30 mg/d and 45 mg/d nemifitide compared to placebo in major depressive disorder. *Int J Neuropsychopharmacol.* 2006 Oct;9(5):517-28.

Overstreet DH, et al. Antidepressant-like effects of a novel pentapeptide, nemifitide, in an animal model of depression. *Psychopharmacology (Berl).* 2004 Sep;175(3):303-9.

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