

L-803087 TFA

Chemical Properties

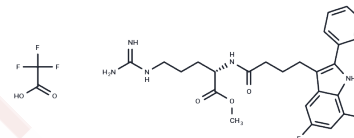
CAS No. : 1786412-46-1

Formula: C₂₇H₃₀F₅N₅O₅

Molecular Weight: 599.55

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	L-803087 TFA is a highly potent and selective agonist of the somatostatin sst4 receptor, exhibiting a K _i value of 0.7 nM. It displays a remarkable selectivity, being over 280-fold more preferential for the sst4 receptor compared to other somatostatin receptors. Furthermore, L-803087 TFA promotes AMPA-mediated synaptic responses in hippocampal preparations and enhances kainate-induced seizures in mice.
Targets(IC50)	Others,Somatostatin
In vitro	L-803087 exhibits affinity for cloned human sst1, sst2, sst3, and sst5 receptors with K _i values of 199, 4720, 1280, and 3880 nM, respectively[1]. It features a diamine moiety aligned with lysine on the pharmacophore; however, the connection between this molecule and the pharmacophore's aromatic and Trp (tryptophan) substituents remains unclear. Additionally, L-803087 does not suppress the secretion of growth hormone, insulin, or glucagon[1].
In vivo	Administering 5 nmol of L-803087 on average doubles seizure activity in wild-type mice, an effect that is inhibited by 3 nmol of Octreotide. Additionally, in hippocampal slices from wild-type mice, 2 μM Octreotide does not alter AMPA-mediated synaptic responses, whereas 2 μM L-803087 induces facilitation[2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6679 mL	8.3396 mL	16.6792 mL
5 mM	0.3336 mL	1.6679 mL	3.3358 mL
10 mM	0.1668 mL	0.834 mL	1.6679 mL
50 mM	0.0334 mL	0.1668 mL	0.3336 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

Rohrer SP, et al. Rapid identification of subtype-selective agonists of the somatostatin receptor through combinatorial chemistry. *Science*. 1998 Oct 23;282(5389):737-40.

Moneta D, et al. Somatostatin receptor subtypes 2 and 4 affect seizure susceptibility and hippocampal excitatory neurotransmission in mice. *Eur J Neurosci*. 2002 Sep;16(5):843-9.

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