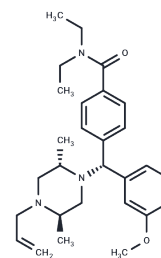


SNC 80

Chemical Properties

CAS No. : 156727-74-1
 Formula: C₂₈H₃₉N₃O₂
 Molecular Weight: 449.63
 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	SNC 80 (NIH 10815) is a potent, highly selective and non-peptide δ -opioid receptor agonist, $K_i = 1.78$ nM, $IC_{50} = 2.73$ nM. SNC80 also selectively activates μ - δ heteromer in HEK293 cells with an EC_{50} of 52.8 nM. SNC80 shows antinociceptive, antihyperalgesic and antidepressant-like effects. SNC80 has the potential for multiple headache disorders treatment.
Targets(IC_{50})	Opioid Receptor
In vitro	SNC80 selectively targets and activates the μ - δ heteromer within HEK293 cells, displaying an EC_{50} value of 52.8 nM. It demonstrates significantly higher activity in cells coexpressing μ - and δ -opioid receptors compared to those solely expressing δ -opioid receptors or those coexpressing δ - and κ -opioid receptors [4].
In vivo	SNC80 (10 mg/kg; intraperitoneal injection; once) significantly attenuated allodynia induced by Sumatriptan overuse in C57BL6/J mice [1].

Solubility Information

Solubility	DMSO: 33.3 mg/mL (74.06 mM),, when pH is adjusted to 3 with HCl. Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.22 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2241 mL	11.1203 mL	22.2405 mL
5 mM	0.4448 mL	2.2241 mL	4.4481 mL
10 mM	0.2224 mL	1.112 mL	2.2241 mL
50 mM	0.0445 mL	0.2224 mL	0.4448 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

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Bilsky EJ, et al. SNC 80, a selective, nonpeptidic and systemically active opioid delta agonist. *J Pharmacol Exp Ther*. 1995 Apr;273(1):359-66.

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Metcalf MD, et al. The δ opioid receptor agonist SNC80 selectively activates heteromeric μ - δ opioid receptors. *ACS Chem Neurosci*. 2012 Jul 18;3(7):505-9.

Vicente-Sanchez A, et al. The delta opioid receptor tool box. *Neuroscience*. 2016 Dec 3;338:145-159.

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