

ML 190

Chemical Properties

CAS No. : 1355244-02-8

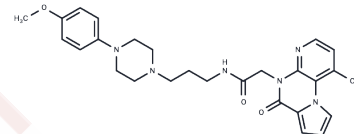
Formula: C27H32N6O3

Molecular Weight: 488.58

Store at low temperature

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	ML 190 is a potent and selective κ opioid receptor (KOR) antagonist ($K_i=129$ nM), exhibiting an $IC_{50}=150$ nM in β -arrestin assays, suitable for studying drug addiction.
Targets(IC_{50})	Opioid Receptor
In vitro	The plasma protein binding rate of ML 190 in Homo sapiens is 93.96% (1 μ M) and 88.54% (10 μ M), while in mice it is 88.46% (1 μ M) and 80.07% (10 μ M) respectively. The remaining plasma percentage after 3 hours is 100% in both Homo sapiens and mice. The remaining percentage after 1 hour in liver microsomes is 22.13% in Homo sapiens and 7.34% in mice. The hepatotoxicity LC_{50} is greater than 50 μ M [1].

Solubility Information

Solubility	DMSO: 7.5 mg/mL (15.35 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0467 mL	10.2337 mL	20.4675 mL
5 mM	0.4093 mL	2.0467 mL	4.0935 mL
10 mM	0.2047 mL	1.0234 mL	2.0467 mL
50 mM	0.0409 mL	0.2047 mL	0.4093 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

Frankowski KJ, et al. Discovery of Small Molecule Kappa Opioid Receptor Agonist and Antagonist Chemotypes through a HTS and Hit Refinement Strategy. ACS Chem Neurosci. 2012;3(3):221-236.

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