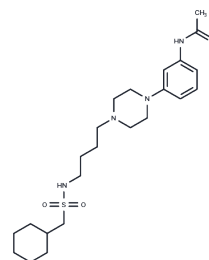


Naluzotan

Chemical Properties

CAS No. :	740873-06-7
Formula:	C23H38N4O3S
Molecular Weight:	450.64
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Naluzotan (PRX 00023) is a novel and potent 5-HT _{1A} agonist with IC ₅₀ and K _i values of approximately 20 nM and 5.1 nM, respectively. Naluzotan is a potent hERG K ⁺ channel blocker with an IC ₅₀ value of 3800 nM. Naluzotan exhibits anxiolytic activity and can be used to study depression.
Targets (IC ₅₀)	EGFR, 5-HT Receptor, Potassium Channel
In vitro	Naluzotan, with an EC ₅₀ of 20 nM, behaves as a full agonist in an in vitro cell-based functional assay. It exhibits significant affinity for the guinea pig sigma receptor (K _i = 100 nM) but does not inhibit cytochrome P450 isoforms (CYP) 1A2, 2C9, 2C19, 2D6, and 3A4[2].
In vivo	In rats, when administered orally, Naluzotan shows 11% oral bioavailability with a serum half-life (t _{1/2}) of 2–3.5 hours, reaching a C _{max} level of 24 ± 13 ng/mL (3 mg/kg, oral). Naluzotan exhibits significant brain penetration, with a brain:serum concentration ratio of approximately 0.5 in rats at 1 hour following either intravenous or oral administration, and it achieves a brain concentration approximately equivalent to that of buspirone. In dogs, the pharmacokinetic profile of naluzotan demonstrates 16% oral bioavailability, a serum t _{1/2} of 1.1 hours when administered orally, and a C _{max} level of 174 ± 141 ng/mL (3 mg/kg, oral)[1]. PRX-00023, at doses of 0.01–0.05 mg/kg administered intraperitoneally, significantly reduces ultrasonic vocalization (USV) rates in rats, but none of these doses induce sedation[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2191 mL	11.0953 mL	22.1907 mL
5 mM	0.4438 mL	2.2191 mL	4.4381 mL
10 mM	0.2219 mL	1.1095 mL	2.2191 mL
50 mM	0.0444 mL	0.2219 mL	0.4438 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

Brunelli SA, et al. PRX-00023, a selective serotonin 1A receptor agonist, reduces ultrasonic vocalizations in infant rats bred for high infantile anxiety. *Pharmacol Biochem Behav.* 2009 Nov;94(1):8-15.

Becker OM, et al. An integrated in silico 3D model-driven discovery of a novel, potent, and selective amidosulfonamide 5-HT_{1A} agonist (PRX-00023) for the treatment of anxiety and depression. *J Med Chem.* 2006 Jun 1;49(11):3116-35.

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