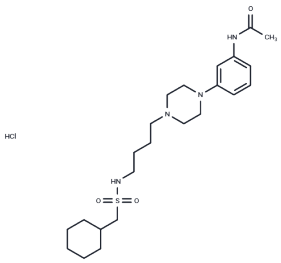
# Data Sheet (Cat.No.T68113)

TargetMol

## Naluzotan hydrochloride

### Chemical Properties



CAS No. : 740873-82-9

Formula: C23H39ClN4O3S

Molecular Weight: 487.1

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

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|---|---|
| Description | Naluzotan hydrochloride (PRX 00023 hydrochloride) is a hERG K+ channel blocker with an IC50 value of 3800 nM and is commonly used in the study of anxiety and depression. Naluzotan hydrochloride is also a novel, potent, and selective 5-HT1A agonist, with an IC50 value of about 20 nM and a Ki value of about 5.1 Naluzotan hydrochloride is also a novel, potent and selective 5-HT1A agonist with an IC50 of approximately 20 nM and a Ki of approximately 5.1 nM. |
| Targets(IC50) | EGFR,5-HT Receptor,Potassium Channel |
| In vitro | Naluzotan hydrochloride behaves as a full agonist in an in vitro cell-based functional assay with an EC50 of 20 nM. Naluzotan hydrochloride has significant affinity is the guinea pig sigma receptor (Ki = 100 nM), but does not inhibit cytochrome P450 isoforms (CYP) 1A2, 2C9, 2C19, 2D6, and 3A4.[1] |
| In vivo | In rats Naluzotan hydrochloride shows 11% oral bioavailability with a serum t1/2 of 2–3. 5 h when administrated po, attaining a Cmax level of 24 ± 13 ng/mL (3 mg/kg, po). Naluzotan hydrochloride shows significant brain penetration, achieving a brain:serum concentration ratio of approximately 0.5 in the rat at 1 h following either intravenous or oral administration and reaching brain concentration approximately equivalent to that of buspirone. In dogs the pharmacokinetic profile of Naluzotan hydrochloride shows 16% oral bioavailability, a serum t1/2 of 1.1 h po, and a Cmax level of 174 ± 141 ng/mL (3 mg/kg, po)[1]. PRX-00023 (0.01-0.05 mg/kg, i.p.) significantly reduces USV rates, but done of these doses produce sedation in rats.[2] |

### Solubility Information

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|---|---|
| Solubility | DMSO: 50 mg/mL (102.65 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.053 mL | 10.2648 mL | 20.5297 mL |
| 5 mM | 0.4106 mL | 2.053 mL | 4.1059 mL |
| 10 mM | 0.2053 mL | 1.0265 mL | 2.053 mL |
| 50 mM | 0.0411 mL | 0.2053 mL | 0.4106 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

Becker OM, et al. An integrated in silico 3D model-driven discovery of a novel, potent, and selective amidosulfonamide 5-HT1A agonist (PRX-00023) for the treatment of anxiety and depression. J Med Chem. 2006 Jun 1;49(11):3116-35.
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.