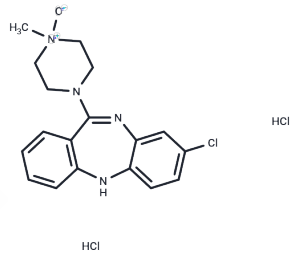
Data Sheet (Cat.No.T72112)

TargetMol

Clozapine N-oxide dihydrochloride

Chemical Properties



CAS No. : 2250025-93-3

Formula: C18H21Cl3N4O

Molecular Weight: 415.74

Storage: Store under nitrogen,Store at low temperature
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	Clozapine N-oxide dihydrochloride, a derivative of Clozapine and an agonist of human muscarinic design receptors (DREADDs), crosses the blood-brain barrier and activates DREADD receptors hM3Dq and hM4Di.
Targets(IC50)	AChR,Cholinesterase (ChE),Dopamine Receptor,Drug Metabolite

Solubility Information

Solubility	H2O: 50 mg/mL (120.27 mM),Sonication is recommended. DMSO: 245 mg/mL (589.31 mM),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: 10 mg/mL (24.05 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4053 mL	12.0267 mL	24.0535 mL
5 mM	0.4811 mL	2.4053 mL	4.8107 mL
10 mM	0.2405 mL	1.2027 mL	2.4053 mL
50 mM	0.0481 mL	0.2405 mL	0.4811 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

Wess J, et al. Novel designer receptors to probe GPCR signaling and physiology. Trends Pharmacol Sci. 2013 Jul;34 (7):385-92.
Manvich DF, et al. The DREADD agonist clozapine N-oxide (CNO) is reverse-metabolized to clozapine and produces clozapine-like interoceptive stimulus effects in rats and mice. Sci Rep. 2018 Mar 1;8(1):3840.
van der Peet PL, et al. Gram scale preparation of clozapine N-oxide (CNO), a synthetic small molecule actuator for muscarinic acetylcholine DREADDs. MethodsX. 2018 Mar 23;5:257-267.

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