

Clozapine-D8

Chemical Properties

CAS No. : 1185053-50-2

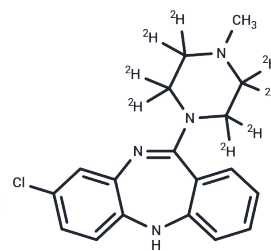
Formula: C₁₈H₁₉ClN₄

Molecular Weight: 334.87

Keep away from direct sunlight

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	Clozapine-D8 is the deuterium-labeled analog of the antipsychotic compound Clozapine (TMSM-3441), wherein eight hydrogen atoms have been replaced with the stable isotope deuterium. Like its parent molecule, Clozapine-D8 acts as a selective ligand for the D4-dopamine receptor and the 5HT ₂ serotonin receptor, making it a valuable internal standard for the quantitative mass spectrometric analysis of Clozapine, which is an atypical antipsychotic used primarily for the research of treatment-resistant schizophrenia and exhibits high affinity for a diverse number of neuroreceptors beyond its primary targets.
Targets(IC50)	5-HT Receptor, Adrenergic Receptor, AChR, Dopamine Receptor

Solubility Information

Solubility	DMSO: 40 mg/mL (119.45 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9862 mL	14.9312 mL	29.8623 mL
5 mM	0.5972 mL	2.9862 mL	5.9725 mL
10 mM	0.2986 mL	1.4931 mL	2.9862 mL
50 mM	0.0597 mL	0.2986 mL	0.5972 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

Adams KN, et al. Verapamil, and its metabolite norverapamil, inhibit macrophage-induced, bacterial efflux pump-mediated tolerance to multiple anti-tubercular drugs. J Infect Dis. 2014 Aug 1;210(3):456-66.

Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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