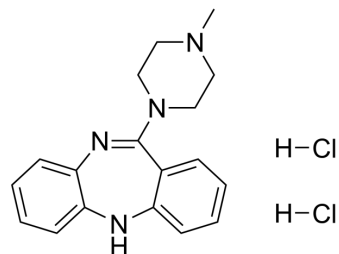


## Deschloroclozapine dihydrochloride

Cat. No.:	HY-42110A
Molecular Formula:	C <sub>18</sub> H <sub>22</sub> Cl <sub>2</sub> N <sub>4</sub>
Molecular Weight:	365.3
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 100 mg/mL (273.75 mM; Need ultrasonic)  
DMSO : 100 mg/mL (273.75 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	2.7375 mL	13.6874 mL	27.3748 mL
	5 mM	0.5475 mL	2.7375 mL	5.4750 mL	
	10 mM	0.2737 mL	1.3687 mL	2.7375 mL	

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Deschloroclozapine dihydrochloride, a metabolite of Clozapine, is a highly potent muscarinic DREADDs agonist. Deschloroclozapine binds to DREADD receptor subtypes hM3Dq and hM4Di with K<sub>i</sub> of 6.3 and 4.2 nM, respectively. [<sup>11</sup>C]-Deschloroclozapine is developed as a promising PET tracer for DREADD imaging<sup>[1][2][3]</sup>.

### CUSTOMER VALIDATION

- Cell. 2023 Nov 22;186(24):5394-5410.e18.
- Nat Neurosci. 2020 Sep;23(9):1157-1167.
- Nat Commun. 2023 Oct 24;14(1):6758.
- Nat Commun. 2023 Jul 24;14(1):4456.
- Nat Commun. 2023 Feb 28;14(1):971.

## REFERENCES

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- [1]. Maggs JL, et al. The metabolic formation of reactive intermediates from clozapine, a drug associated with agranulocytosis in man. *J Pharmacol Exp Ther.* 1995;275(3):1463-1475.
- [2]. Upright NA, et al. Effect of chemogenetic actuator drugs on prefrontal cortex-dependent working memory in nonhuman primates. *Neuropsychopharmacology.* 2020;45(11):1793-1798.
- [3]. Hu F, et al. <sup>18</sup>F-labeled radiotracers for in vivo imaging of DREADD with positron emission tomography. *Eur J Med Chem.* 2021;213:113047.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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