

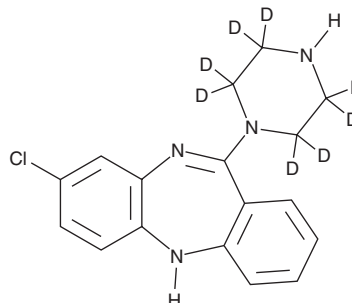
PRODUCT INFORMATION



N-Desmethylozapine-d₈

Item No. 26027

CAS Registry No.: 1189888-77-4
Formal Name: 8-chloro-11-(piperazin-1-yl)-2,2,3,3,5,5,6,6-d₈-5H-dibenzo[b,e][1,4]diazepine
Synonym: Norclozapine-d₈
MF: C₁₇H₉ClD₈N₄
FW: 320.9
Chemical Purity: ≥98% (N-Desmethylozapine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₈); ≤1% d₀
UV/Vis.: λ_{max}: 229, 260, 297 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N-Desmethylozapine-d₈ is intended for use as an internal standard for the quantification of N-desmethylozapine by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

N-Desmethylozapine-d₈ is supplied as a solid. A stock solution may be made by dissolving the N-desmethylozapine-d₈ in the solvent of choice, which should be purged with an inert gas. N-Desmethylozapine-d₈ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of N-desmethylozapine-d₈ in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

N-Desmethylozapine is an active metabolite of the atypical antipsychotic clozapine (Item Nos. 12059 | 25779).¹ It was originally described as an antagonist of serotonin (5-HT) receptor subtype 5-HT_{2C} (IC₅₀ = 7.1 nM in rat choroid plexus) and later as an inverse agonist using human recombinant receptors.^{2,3} N-Desmethylozapine is an antagonist at dopamine D₄ receptors, an agonist at δ-opioid receptors, and a partial agonist at dopamine D₂ and D₃, M₁ muscarinic acetylcholine, and 5-HT_{1A} receptors.^{1,3,4} N-Desmethylozapine (30 mg/kg) decreases exploratory locomotor activity and increases prepulse inhibition of the acoustic startle response in mice.⁵

References

1. Burstein, E.S., Ma, J., Wong, S., et al. *J. Pharmacol. Exp. Ther.* **315**(3), 1278-1287 (2005).
2. Kuoppamäki, M., Syvälahti, E., and Hietala, J. *Eur. J. Pharmacol.* **245**(2), 179-182 (1993).
3. Lameh, J., Burstein, E.S., Taylor, E., et al. *Pharmacol. Ther.* **115**(2), 223-231 (2007).
4. Odagaki, Y., Kinoshita, M., and Ota, T. *J. Psychopharmacol.* **30**(9), 896-912 (2016).
5. Maehara, S., Hikichi, H., and Ohta, H. *Brain Res.* **1418**, 111-119 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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