

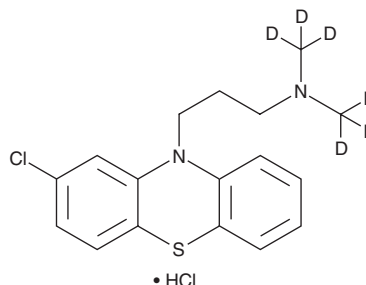
PRODUCT INFORMATION



Chlorpromazine-d₆ (hydrochloride)

Item No. 25636

CAS Registry No.: 1228182-46-4
Formal Name: 2-chloro-N,N-di(methyl-d₃)-10H-phenothiazine-10-propanamine, monohydrochloride
Synonym: CPZ-d₆
MF: C₁₇H₁₃ClD₆N₂S • HCl
FW: 361.4
Chemical Purity: ≥98% (Chlorpromazine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₆); ≤1% d₀
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

Chlorpromazine-d₆ (CPZ-d₆) (hydrochloride) is intended for use as an internal standard for the quantification of CPZ (Item No. 16129) 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).

CPZ-d₆ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the CPZ-d₆ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. CPZ-d₆ (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CPZ-d₆ (hydrochloride) in these solvents is approximately 30 mg/ml.

Description

CPZ is a typical antipsychotic and an antagonist of dopamine D₂, D₃, and D₄ receptors (K_is = 0.66, 0.84, and 1.2 nM, respectively) as well as the serotonin (5-HT) receptor subtype 5-HT_{2A} (K_i = 1.8 nM).^{1,2} It is also an antagonist of histamine H₁, α_{1A}, α_{2B}, and α_{2C}-adrenergic, and M₃ muscarinic acetylcholine receptors (K_is = 6, 0.28, 27, 46, and 47 nM, respectively).³ CPZ (10 mg/kg per day) increases latency to find the platform in a repeated acquisition water maze task and decreases vertical activity and stereotypic movements in the open field test in rats.⁴ CPZ (0.3, 1, and 3 mg/kg, s.c.) also reduces emesis induced by cisplatin (Item No. 13119) in dogs.⁵

References

1. Seeman, P. and Tallerico, T. *Mol. Psychiatry* **3**(2), 123-134 (1998).
2. Seeman, P., Corbett, R., and Van Tol, H.H. *Neuropsychopharmacology* **16**(2), 93-110 (1997).
3. Kroeze, W.K., Hufeisen, S.J., Popadak, B.A., et al. *Neuropsychopharmacology* **28**(3), 519-526 (2003).
4. Terry, A.V., Jr., Warner, S.E., Vandenhuverk, L., et al. *Neuroscience* **156**(4), 1005-1016 (2008).
5. Gyls, J.A., Doran, K.M., and Buyniski, J.P. *Res. Commun. Chem. Pathol. Pharmacol.* **23**(1), 61-68 (1979).

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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