

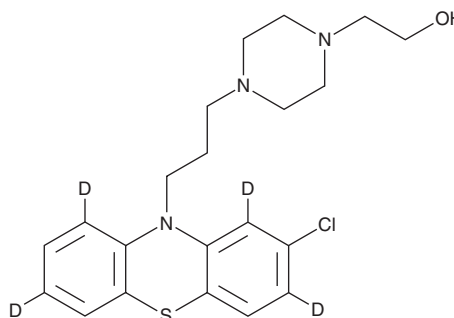
PRODUCT INFORMATION



Perphenazine-d₄

Item No. 33298

CAS Registry No.: 155593-75-2
Formal Name: 4-[3-(2-chloro-10H-phenothiazin-10-yl)-1,3,7,9-d₄propyl]-1-piperazineethanol
MF: C₂₁H₂₂ClD₄N₃OS
FW: 408.0
Chemical Purity: ≥95% (Perphenazine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤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

Perphenazine-d₄ is intended for use as an internal standard for the quantification of perphenazine (Item No. 20735) 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).

Perphenazine-d₄ is supplied as a solid. A stock solution may be made by dissolving the perphenazine-d₄ in the solvent of choice, which should be purged with an inert gas. Perphenazine-d₄ is soluble in methanol.

Description

Perphenazine is a typical antipsychotic.¹ It binds to dopamine D₂, α_{1A}, α_{2A}, α_{2B}, and α_{2C}-adrenergic, M₃ muscarinic, and histamine H₁ receptors (K_is = 1.4, 10, 1,848, 104.9, 85.2, 810.5 and 8 nM, respectively), as well as the serotonin (5-HT) receptor subtypes 5-HT_{1A}, 5-HT_{2A}, 5-HT_{2C}, 5-HT₆, and 5-HT₇ (K_is = 421, 5.6, 132, 17, and 23 nM, respectively). Perphenazine (1, 5, and 10 mg/kg) enhances morphine-induced analgesia in the tail-flick and hot plate tests in rats.² It reduces cannibalism in female mice when administered at doses of 2 and 4 mg/kg.³ Formulations containing perphenazine have been used in the treatment of schizophrenia and psychosis.

References

1. Kroeze, W.K., Hufeisen, S.J., Popadak, B.A., *et al.* H1-histamine receptor affinity predicts short-term weight gain for typical and atypical antipsychotic drugs. *Neuropsychopharmacology* **28(3)**, 519-526 (2003).
2. Ozdemir, E., Bagcivan, I., and Gursoy, S. Role of D₁/D₂ dopamin receptors antagonist perphenazine in morphine analgesia and tolerance in rats. *Bosn. J. Basic Med. Sci.* **13(2)**, 119-125 (2013).
3. Carter, D.B., Kennett, M.J., and Franklin, C.L. Use of perphenazine to control cannibalism in DBA/1 mice. *Comp. Med.* **52(5)**, 452-455 (2002).

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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