

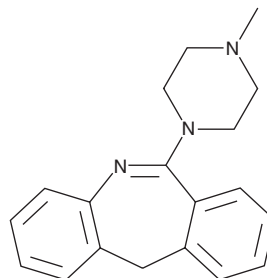
PRODUCT INFORMATION



Perlapine

Item No. 17756

CAS Registry No.: 1977-11-3
Formal Name: 6-(4-methyl-1-piperazinyl)-11H-dibenz[b,e]azepine
Synonyms: 6-(4-Methyl-1-piperazinyl)morphanthridine, NSC 291840
MF: C₁₉H₂₁N₃
FW: 291.4
Purity: ≥98%
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 250, 306 nm
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

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

Perlapine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, perlapine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Perlapine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Perlapine is an atypical neuroleptic that blocks dopamine and serotonin (5-HT) receptors (K_i s = 60, 30, and 30 nM for D₂, D₄, and 5-HT_{2A}, respectively).¹ Perlapine is also an agonist for hM3Dq, a designer receptor exclusively activated by designer drugs (DREADDs) derived from the human muscarinic acetylcholine M₃ receptor that activates neuronal firing.² Perlapine displays >10,000-fold selectivity for hM3Dq over hM3.²

References

1. Seeman, P., Corbett, R., and Van Tol, H.H. Atypical neuroleptics have low affinity for dopamine D₂ receptors or are selective for D₄ receptors. *Neuropsychopharmacology* **16**(2), 93-110 (1997).
2. Chen, X., Choo, H., Huang, X.-P., et al. The first structure-activity relationship studies for designer receptors exclusively activated by designer drugs. *ACS Chem. Neurosci.* **6**(3), 476-484 (2015).

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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