

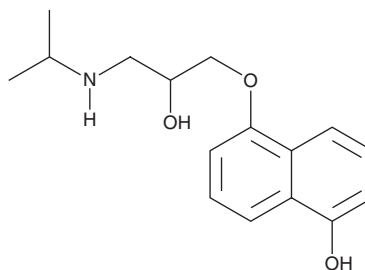
PRODUCT INFORMATION



5-hydroxy Propranolol

Item No. 19880

CAS Registry No.: 81907-82-6
Formal Name: 5-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]-1-naphthalenol
MF: C₁₆H₂₁NO₃
FW: 275.3
Purity: ≥98%
UV/Vis.: λ_{max}: 226, 297, 314, 328 nm
Supplied as: A crystalline 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

5-hydroxy Propranolol is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-hydroxy propranolol in the solvent of choice, which should be purged with an inert gas. 5-hydroxy Propranolol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 5-hydroxy propranolol in ethanol and DMSO is approximately 30 mg/ml and approximately 50 mg/ml in DMF.

5-hydroxy Propranolol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 5-hydroxy propranolol should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 5-hydroxy Propranolol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

5-hydroxy Propranolol is a metabolite of propranolol (Item No. 17291), a β-adrenergic receptor antagonist.¹ Propranolol is primarily metabolized in the liver, with cytochrome P450 isoform 2D6 directing ring hydroxylation and the generation of 5-hydroxy propranolol and related metabolites.²⁻⁴

References

1. Mehvar, R. and Brocks, D.R. Stereospecific pharmacokinetics and pharmacodynamics of beta-adrenergic blockers in humans. *J. Pharm. Pharm. Sci.* **4(2)**, 185-200 (2001).
2. Ellis, S.W., Hayhurst, G.P., Lightfoot, T., *et al.* Evidence that serine 304 is not a key ligand-binding residue in the active site of cytochrome P450 2D6. *Biochem J.* **345(Pt 3)**, 565-571 (2000).
3. Masubuchi, Y., Hosokawa, S., Horie, T., *et al.* Cytochrome P450 isozymes involved in propranolol metabolism in human liver microsomes. The role of CYP2D6 as ring-hydroxylase and CYP1A2 as N-desisopropylase. *Drug Metab. Dispos.* **22(6)**, 909-915 (1994).
4. Ring, J.A., Ghabrial, H., Ching, M.S., *et al.* Fetal hepatic propranolol metabolism. Studies in the isolated perfused fetal sheep liver. *Drug Metab. Dispos.* **23(2)**, 190-196 (1995).

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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