

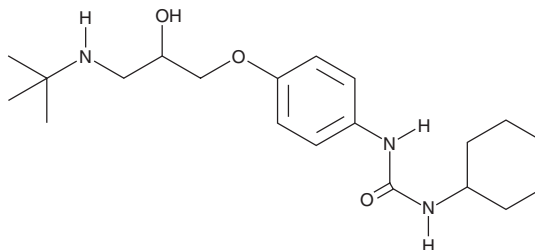
PRODUCT INFORMATION



(±)-Talinolol

Item No. 16116

CAS Registry No.: 57460-41-0
Formal Name: N-cyclohexyl-N'-[4-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]phenyl]-urea
MF: C₂₀H₃₃N₃O₃
FW: 363.5
Purity: ≥95%
UV/Vis.: λ_{max}: 203, 245, 292 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

(±)-Talinolol is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-talinolol in the solvent of choice. (±)-Talinolol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of (±)-talinolol in these solvents is approximately 10, 15, and 30 mg/ml, respectively.

(±)-Talinolol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (±)-talinolol should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (±)-Talinolol has a solubility of approximately 0.05 mg/ml in a 1:20 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(±)-Talinolol is a β₁-selective adrenoceptor antagonist well known for its cardioprotective and antihypertensive activity.¹ By blocking β₁-adrenergic receptors, talinolol delays the conduction of stimuli in the AV node, reduces the sino-atrial conduction time, and impedes the sinus node automaticity.¹ Because its metabolism in human liver microsomes is well understood, (±)-talinolol is useful for examining the activity of the drug-transporting MDR1 gene product P-glycoprotein.²⁻⁴

References

1. Abmann, I. The actions of talinolol, a β₁-selective beta blocker, in cardiac arrhythmia and acute myocardial infarction. *Curr. Med. Res. Opin.* **13(6)**, 325-342 (1995).
2. Trausch, B., Oertel, R., Richter, K., *et al.* Disposition and bioavailability of the β₁-adrenoceptor antagonist talinolol in man. *Biopharm. Drug Dispos.* **16(5)**, 403-414 (1995).
3. Zschiesche, M., Lemma, G.L., Klebingat, K.J., *et al.* Stereoselective disposition of talinolol in man. *J. Pharm. Sci.* **91(2)**, 303-311 (2002).
4. Schwarz, U.I., Seemann, D., Oertel, R., *et al.* Grapefruit juice ingestion significantly reduces talinolol bioavailability. *Clin. Pharmacol. Ther.* **77(4)**, 291-301 (2005).

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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