

Certificate of Analysis

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Product Name: Alprenolol hydrochloride

Catalog No.: 2806

Batch No.: 3

CAS Number: 13707-88-5

EC Number: 237-244-4

IUPAC Name: 1-[(1-Methylethyl)amino]-3-[2-(2-propenyl)phenoxy]-2-propanol hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₂₃NO₂.HCl

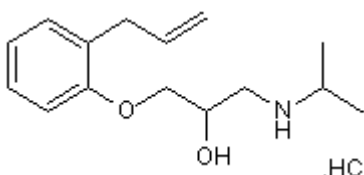
Batch Molecular Weight: 285.81

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.06 (Dichloromethane:Methanol [95:5])

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.04	8.46	4.9
Found	63.07	8.52	4.94

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

β -adrenoceptor ($\beta_2 > \beta_1 > \beta_3$) and 5-HT_{1A} receptor antagonist.

Physical and Chemical Properties:

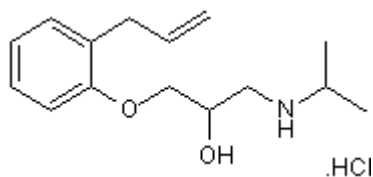
Batch Molecular Formula: C₁₅H₂₃NO₂.HCl

Batch Molecular Weight: 285.81

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Baker (2005) The selectivity of β -adrenoceptor antagonists at the human β_1 , β_2 and β_3 adrenoceptors. *Br.J.Pharmacol.* **144** 317. PMID: 15655528.

Bjorvatin et al (1992) The 5-HT_{1A} antagonist (-)-alprenolol fails to modify sleep or zimeldine-induced sleep-waking effects in rats. *Pharmacol.Biochem.Behav.* **42** 49. PMID: 1388278.

Blue et al (1990) Antagonist characterization of atypical *beta* adrenoceptors in guinea pig ileum: blockade by alprenolol and dihydroalprenolol. *J.Pharmacol.Exp.Ther.* **252** 1034. PMID: 1969469.

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