

Certificate of Analysis

Product Name: Bucindolol

Catalog No.: 2658

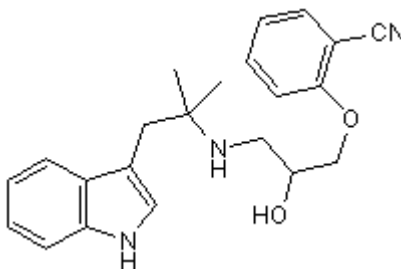
Batch No.: 2

CAS Number: 71119-11-4

IUPAC Name: 2-[2-Hydroxy-3-[[2-(1*H*-indol-3-yl)-1,1-dimethylethyl]amino]propoxy]benzonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₂₅N₃O₂
Batch Molecular Weight: 363.45
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 50 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Dichloromethane:Methanol [9:1])
HPLC: Shows >99.49% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	72.7	6.93	11.56
Found	72.27	6.97	11.38

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

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Description:

Non-selective β -adrenoceptor antagonist with additional α_1 -adrenoceptor blocking activity. K_i values are 1.61, 1.20 and 68.9 nM for β_1 -, β_2 - and α_1 -adrenoceptors respectively. Also acts as a weak 5-HT_{2A/2B} antagonist. Displays vasodilatory and antihypertensive actions.

Physical and Chemical Properties:

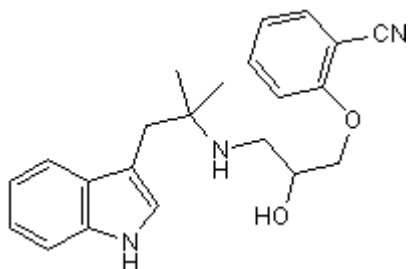
Batch Molecular Formula: C₂₂H₂₅N₃O₂

Batch Molecular Weight: 363.45

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 50 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:

Marwood and Stokes (1985) Bucindolol has serotonin and alpha-adrenoceptor blocking properties. *J.Cardiovasc.Pharmacol.* **7** (Suppl. 7) S67.

Watts et al (2000) Interaction of the [beta] adrenergic receptor antagonist bucindolol with serotonergic receptors. *J.Cardiovasc.Pharmacol.* **35** 29. PMID: 10630730.

Ponicke et al (2002) Differential effects of bucindolol and carvedilol on noradrenaline-induced hypertrophic response in ventricular cardiomyocytes of adult rats. *J.Pharmacol.Exp.Ther.* **301** 71. PMID: 11907159.

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