

Certificate of Analysis

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Product Name: Dobutamine hydrochloride

Catalog No.: 0515

Batch No.: 2

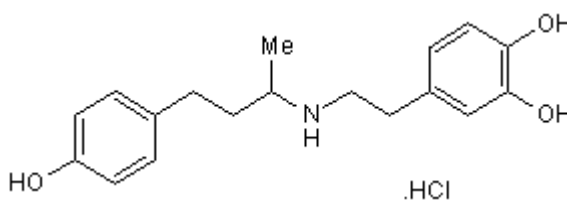
CAS Number: 49745-95-1

EC Number: 256-464-1

IUPAC Name: 4-[2-[[3-(4-Hydroxyphenyl)-1-methylpropyl]aminoethyl]-1,2-benzenediol hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₂₃NO₃.HCl
Batch Molecular Weight: 337.85
Physical Appearance: White crystalline solid
Solubility: DMSO to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.45 (Chloroform:Methanol [10:1])
Melting Point: Between 186 - 187°C
HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.99	7.16	4.14
Found	63.86	7.16	4.07

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

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Description:

β_1 - and β_2 -adrenoceptor agonist with some action at the α_1 -adrenoceptor.

Physical and Chemical Properties:

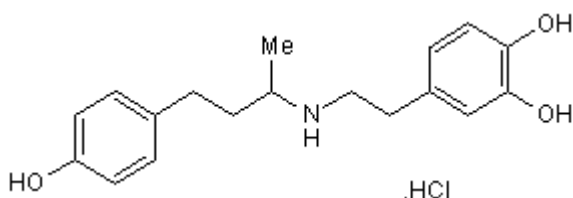
Batch Molecular Formula: C₁₈H₂₃NO₃.HCl

Batch Molecular Weight: 337.85

Physical Appearance: White crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

DMSO 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:

Merck Index **12** 3456.

Brown et al (1987) Dobutamine: positive inotropy by nonselective adrenoceptor agonism in isolated guinea pig and human myocardium. *Naunyn Schmiedeberg's Arch.Pharmacol.* **335** 385. PMID: 3600817.

Deighton et al (1992) Characterization of the *beta* adrenoceptor subtype(s) mediating the positive inotropic effects of epinine, dopamine, dobutamine, denopamine and xamoterol in isolated human right atrium. *J.Pharmacol.Exp.Ther.* **262** 532. PMID: 1354251.

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