

Product Name: Bepridil hydrochloride

Catalog No.: 4117

Batch No.: 2

CAS Number: 68099-86-5

IUPAC Name: *N*-Benzyl-*N*-(3-isobutoxy-2-pyrrolidin-1-yl-propyl)aniline hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{34}N_2O \cdot HCl \cdot H_2O$

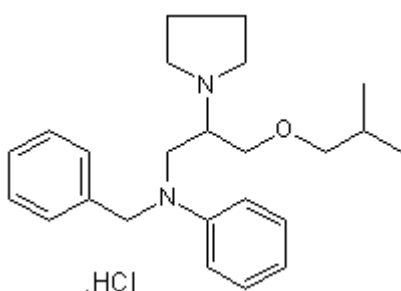
Batch Molecular Weight: 421.02

Physical Appearance: Pink solid

Solubility: DMSO to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	68.47	8.86	6.65
Found	68.55	8.69	6.78

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

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CAS Number: 68099-86-5

IUPAC Name: N-Benzyl-N-(3-isobutoxy-2-pyrrolidin-1-yl-propyl)aniline hydrochloride

Description:

Calcium channel blocker. Also inhibits Na⁺/Ca²⁺ exchange (NCX), sodium channels and cardiac sarcolemmal K_{ATP} channels; opens mitochondrial K_{ATP} channels. Antiarrhythmic and antihypertensive; acts as a calcium sensitizer.

Physical and Chemical Properties:

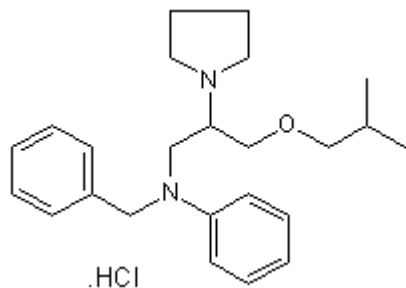
Batch Molecular Formula: C₂₄H₃₄N₂O.HCl.H₂O

Batch Molecular Weight: 421.02

Physical Appearance: Pink 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:

Yatani et al (1986) Bepridil block of cardiac calcium and sodium channels. *J.Pharmacol.Exp.Ther.* **237** 9. PMID: 2420970.

Gill et al (1992) Pharmacology of bepridil. *Am.J.Cardiol.* **69** 11D. PMID: 1372785.

Watanabe and Kimura (2001) Blocking effect of bepridil on Na⁺/ Ca²⁺ exchange current in guinea pig cardiac ventricular myocytes. *Jpn.J.Pharmacol.* **85** 370. PMID: 11388640.

Sato et al (2006) Bepridil, an antiarrhythmic drug, opens mitochondrial K_{ATP} channels, blocks sarcolemmal K_{ATP} channels, and confers cardioprotection. *J.Pharmacol.Exp.Ther.* **316** 182. PMID: 16174795.

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