

## Certificate of Analysis

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**Product Name:** Bepridil hydrochloride

**Catalog No.:** 4117

**Batch No.:** 3

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<sub>24</sub>H<sub>34</sub>N<sub>2</sub>O.HCl.H<sub>2</sub>O

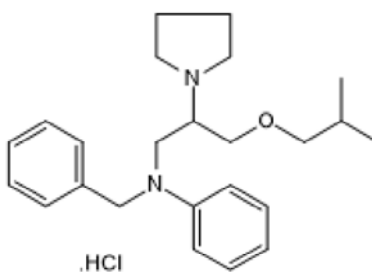
**Batch Molecular Weight:** 421.02

**Physical Appearance:** Off White solid

**Solubility:** DMSO to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.6% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

|             | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 68.47  | 8.86     | 6.65     |
| Found       | 68.45  | 8.94     | 6.86     |

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

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**Description:**

Calcium channel blocker. Also inhibits Na<sup>+</sup>/Ca<sup>2+</sup> exchange (NCX), sodium channels and cardiac sarcolemmal K<sub>ATP</sub> channels; opens mitochondrial K<sub>ATP</sub> channels. Antiarrhythmic and antihypertensive; acts as a calcium sensitizer.

**Physical and Chemical Properties:**

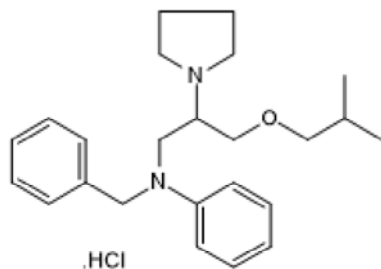
Batch Molecular Formula: C<sub>24</sub>H<sub>34</sub>N<sub>2</sub>O.HCl.H<sub>2</sub>O

Batch Molecular Weight: 421.02

Physical Appearance: Off White 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:**

**Sato et al** (2006) Bepridil, an antiarrhythmic drug, opens mitochondrial K<sub>ATP</sub> channels, blocks sarcolemmal K<sub>ATP</sub> channels, and confers cardioprotection. *J.Pharmacol.Exp.Ther.* **316** 182. PMID: 16174795.

**Watanabe and Kimura** (2001) Blocking effect of bepridil on Na<sup>+</sup>/ Ca<sup>2+</sup> exchange current in guinea pig cardiac ventricular myocytes. *Jpn.J.Pharmacol.* **85** 370. PMID: 11388640.

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

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

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