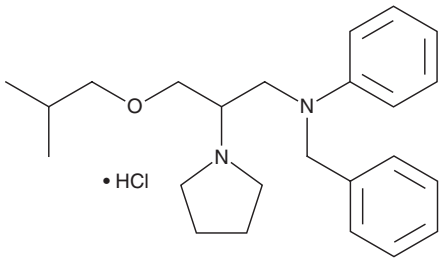
PRODUCT INFORMATION

Bepridil (hydrochloride)

Item No. 19645

CAS Registry No.: 68099-86-5
Formal Name: β-[(2-methylpropoxy)methyl]-N-phenyl-N-(phenylmethyl)-1-pyrrolidineethanamine, monohydrochloride
MF: $C_{24}H_{34}N_2O \bullet HCl$
FW: 403.0
Purity: ≥98%
UV/Vis.: λ_{max}: 248, 295 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bepridil (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the bepridil (hydrochloride) in the solvent of choice. Bepridil (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of bepridil (hydrochloride) in these solvents is approximately 25, 5, and 20 mg/ml, respectively.

Bepridil (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, bepridil (hydrochloride) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Bepridil (hydrochloride) has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Bepridil is a dihydropyridine that has anti-anginal and anti-arrhythmic actions by blocking calcium channels in heart and smooth muscle.[1,2] It is recognized as a non-selective channel blocker, altering myocardial Ca^{2+}, Na^+, and K^+ currents.[3] For example, it blocks voltage-gated Ca^{2+} ($Ca_v3.2$) and K^+ (hERG and KCNQ4) channels, sarcoplasmic ATP-sensitive K^+ (K_{ATP}) channels, and Na^+-activated (K_{Na}) channels (IC_{50}s = 7.1, 22, 9.4, 10, and 2.2 µM, respectively).[2,4-6] It also activates mitochondrial K_{ATP} channels (ED_{50} = 27.5 µM).[7]

References

1. Singh, B.N. *Br. J. Clin. Pharmacol.* **21**, 109S-121S (1986).
2. Perez-Reyes, E., Van Deusen, A.L., and Vitko, I. *J. Pharmacol. Exp. Ther.* **328(2)**, 621-627 (2009).
3. Iijima, K., Chinushi, M., Izumi, D., *et al. Circ. J.* **74(5)**, 895-902 (2010).
4. Sinha, N. and Sen, S. Eur. *J. Med. Chem.* **46(2)**, 618-630 (2011).
5. Sogaard, R., Ljungstrom, T., Pedersen, K.A., *et al. Am. J. Physiol. Cell Physiol.* **280(4)**, C859-C866 (2001).
6. Li, Y., Sato, T., and Arita, M. *J. Pharmacol. Exp. Ther.* **291(2)**, 562-568 (1999).
7. Sato, T., Costa, A.D.T., Saito, T., *et al. J. Pharmacol. Exp. Ther.* **316(1)**, 182-188 (2006).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM