

Product Name: Azimilide dihydrochloride

Catalog No.: 6318

Batch No.: 1

CAS Number: 149888-94-8

IUPAC Name: 1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-methyl-1-piperazinyl)butyl]-2,4-imidazolidinedione dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₂₈ClN₅O₃·2HCl·½H₂O

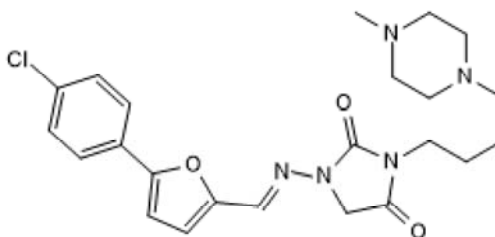
Batch Molecular Weight: 539.89

Physical Appearance: Yellow solid

Solubility: DMSO to 1 mM

Storage: Store at -20°C

Batch Molecular Structure:



2HCl

2. ANALYTICAL DATA

HPLC: Shows 97.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.17	5.79	12.97
Found	51.2	5.69	12.94

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956

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Description:

K_v11.1 (hERG) channel blocker, blocks rapidly activating and slowly activating components of delayed rectifier K⁺ currents (IC₅₀ of 0.4 mM and 3 mM, respectively). Also inhibits Na⁺/Ca²⁺ exchanger in vitro. Shows inhibition of Na⁺ currents, L-type Ca²⁺ currents and other K⁺ currents at high concentrations.

Physical and Chemical Properties:

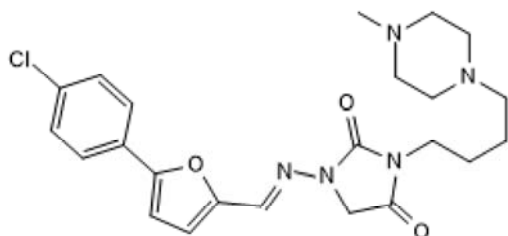
Batch Molecular Formula: C₂₃H₂₈ClN₅O₃.2HCl.½H₂O

Batch Molecular Weight: 539.89

Physical Appearance: Yellow solid

Minimum Purity: >97%

Batch Molecular Structure:



2HCl

References:

Watanabe and Kimura (2010) Inhibitory Effect of Azimilide on Na⁺/Ca²⁺ Exchange Current in Guinea-Pig Cardiac Myocytes. *J.Pharmacol.Sci.* **114** 111. PMID: 20710119.

Busch et al (1998) Blockade of HERG channels by the class III antiarrhythmic Azimilide: mode of action. *Br.J.Pharmacol.* **123** 23. PMID: 9484850.

Busch et al (1995) Blockade of Human I_sK channels expression in *Xenopus* oocytes by the novel class III antiarrhythmic NE-10064. *Eur.J.Pharmacol.* **264** 33. PMID: 7828640.

Fermini et al (1995) Use-dependent effects of the class III antiarrhythmic agent NE-10064 (azimilide) on cardiac repolarisation: block of delayed rectifier potassium and L-type calcium currents. *J.Cardiovasc.Pharmacol.* **26** 259. PMID: 7475051.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 1 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.

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