

Product Name: Azimilide dihydrochloride

Catalog No.: 6318

Batch No.: 3

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.

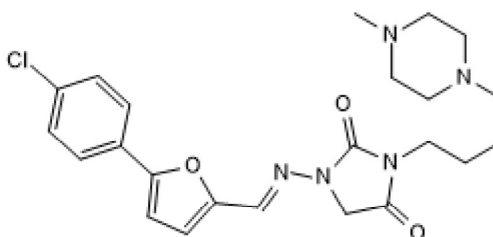
Batch Molecular Weight: 530.88

Physical Appearance: Pale yellow solid

Solubility: water to 50 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	Chlorine
Theoretical	52.04	5.7	13.19	20.03
Found	51.22	5.84	12.82	19.26

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Description:

Azimilide dihydrochloride is a 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:

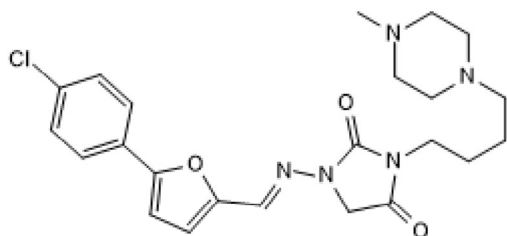
Batch Molecular Formula: C₂₃H₂₈ClN₅O₃·2HCl.

Batch Molecular Weight: 530.88

Physical Appearance: Pale yellow solid

Minimum Purity: ≥97%

Batch Molecular Structure:



2HCl

Storage: Store at -20°C

Solubility & Usage Info:

water to 50 mM

Solutions may appear hazy.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

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 IsK channels expression in Xenopus oocytes by the novel class III antiarrhythmic NE-10064. *Eur.J.Pharmacol.* **264** 33. PMID: 7828640.

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