

Certificate of Analysis

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Product Name: Amiloride hydrochloride

Catalog No.: 0890

Batch No.: 4

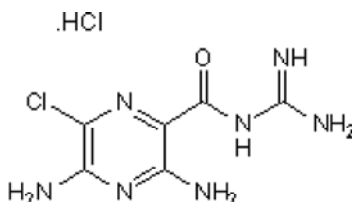
CAS Number: 2016-88-8

EC Number: 217-958-2

IUPAC Name: 3,5-Diamino-*N*-(aminoiminomethyl)-6-chloropyrazinecarboxamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆H₈ClN₇O.HCl.2H₂O
Batch Molecular Weight: 302.12
Physical Appearance: Pale yellow solid
Solubility: water to 5 mM with gentle warming
DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	23.85	4.34	32.45
Found	23.61	4.3	32.15

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

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Description:

Na⁺ channel blocker. Defines the I_{2A}-amiloride sensitive and I_{2B}-amiloride insensitive imidazoline binding Blocks TRPP₃, acid sensing- (ASIC) and mechanogated membrane-ion channels, as well as the Na⁺/H⁺ exchanger. Also inhibits urokinase-type plasminogen activator (uPA); has no effect on tissue-type plasminogen activator.

Physical and Chemical Properties:

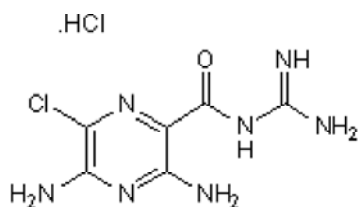
Batch Molecular Formula: C₆H₈ClN₇O.HCl.2H₂O

Batch Molecular Weight: 302.12

Physical Appearance: Pale yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Jetti et al (2010) Evaluation of the role of nitric oxide in acid sensing ion channel mediated cell death. *Nitric Oxide* **22** 213. PMID: 20045740.

Dai et al (2007) Inhibition of TRPP₃ channel by amil. and analogs. *Mol.Pharmacol.* **72** 1576. PMID: 17804601.

Hamill and McBride (1996) The pharmacology of mechanogated membrane ion channels. *Pharmacol.Rev.* **48** 231. PMID: 8804105.

Storage: Store at RT

Solubility & Usage Info:

water to 5 mM with gentle warming
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.

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