

**Product Name:** ML 9 hydrochloride

**Catalog No.:** 0431

**Batch No.:** 6

CAS Number: 105637-50-1

IUPAC Name: 1-(5-Chloronaphthalenesulfonyl)homopiperazine hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>15</sub>H<sub>17</sub>ClN<sub>2</sub>O<sub>2</sub>S.HCl.¼H<sub>2</sub>O

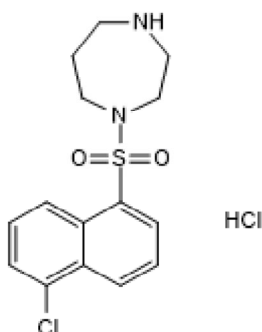
**Batch Molecular Weight:** 365.79

**Physical Appearance:** Off White solid

**Solubility:** DMSO to 25 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.2% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	49.25	5.1	7.66
Found	48.57	4.75	7.51

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

**Product Name:** ML 9 hydrochloride

**Catalog No.:** 0431

**6**

CAS Number: 105637-50-1

IUPAC Name: 1-(5-Chloronaphthalenesulfonyl)homopiperazine hydrochloride

**Description:**

ML 9 hydrochloride is a selective MLCK inhibitor ( $K_i$  values are 4, 32 and 54  $\mu$ M for MLCK, PKA and PKC respectively). Also inhibits STIM1-plasma membrane interactions, preventing store-operated  $Ca^{2+}$  entry (SOCE).

**Physical and Chemical Properties:**

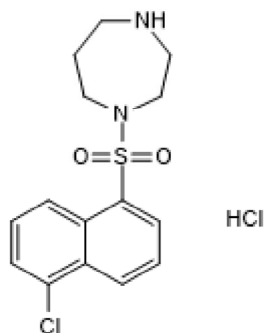
Batch Molecular Formula:  $C_{15}H_{17}ClN_2O_2S \cdot HCl \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 365.79

Physical Appearance: Off White solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

DMSO to 25 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. \*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:**

Varnai *et al* (2009) STIM and Orai: the long-awaited constituents of store-operated calcium entry. *TiPS* **30** 118. PMID: 19187978.

Hidaka and Koybashi (1992) Pharmacology of protein kinase inhibitors. *Annu.Rev.Pharmacol.Toxicol.* **32** 377. PMID: 1605572.

Seto *et al* (1991) Effects of HA1077, a protein kinase inhibitor, on myosin phosphorylation and tension in smooth muscle. *Eur.J.Pharmacol.* **195** 267. PMID: 1874276.

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

**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