

**Product Name:** H-7 dihydrochloride

**Catalog No.:** 0542

**Batch No.:** 15

CAS Number: 108930-17-2

IUPAC Name: (±)-1-(5-Isoquinolinesulphonyl)-2-methylpiperazine dihydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>14</sub>H<sub>17</sub>N<sub>3</sub>O<sub>2</sub>S·2HCl·½H<sub>2</sub>O

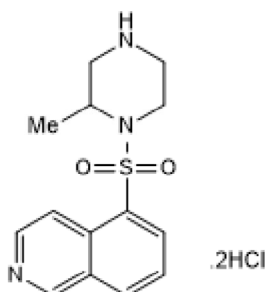
**Batch Molecular Weight:** 373.3

**Physical Appearance:** Off White solid

**Solubility:** water to 100 mM  
DMSO to 20 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.4% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	45.04	5.4	11.26	18.99
Found	44.25	5.31	10.95	18.82

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**Description:**

H-7 dihydrochloride is a protein kinase inhibitor (IC<sub>50</sub> values for inhibition of PKA, PKG, PKC and myosin light chain kinase are 3.0, 5.8, 6.0 and 97.0 μM, respectively. H-7 shows antiviral activity against influenza A (IC<sub>50</sub> = 10 μM) in vitro. H-7 also inhibits interleukin-stimulated secretion of IgM and blocks PMA-stimulated interleukin 1β production.

**Physical and Chemical Properties:**

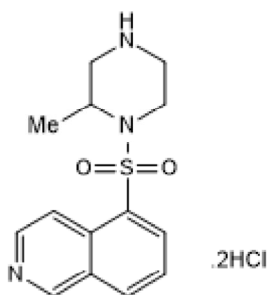
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Batch Molecular Weight: 373.3

Physical Appearance: Off White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 100 mM

DMSO to 20 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:**

**Quick et al** (1992) The structure and biological activities of the widely used protein kinase inhibitor, H7, differ depending on the commercial source. *Biochem.Biophys.Res.Commun.* **187** 657. PMID: 1530632.

**Hurme et al** (1990) Control of interleukin-1 beta expression by protein kinase C and cyclic adenosine monophosphate in myeloid leukemia cells *Blood* **76** (11) 2198. PMID: 2175219.

**Kurokawa et al** (1990) Inhibitory effect of protein kinase C inhibitor on the replication of influenza type A virus. *J.Gen.Virol.* **71** 2149. PMID: 1698925.

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