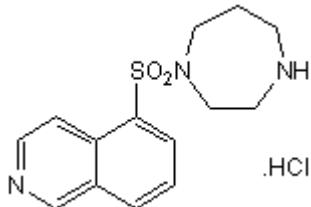


**Certificate of Analysis**[www.tocris.com](http://www.tocris.com)**Product Name:** Fasudil hydrochloride**Catalog No.:** 0541**Batch No.:** 4**CAS Number:** 105628-07-7**IUPAC Name:** 1-(5-Isoquinolinesulfonyl)homopiperazine hydrochloride**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C<sub>14</sub>H<sub>17</sub>N<sub>3</sub>O<sub>2</sub>S.HCl.½H<sub>2</sub>O**Batch Molecular Weight:** 336.84**Physical Appearance:** White solid**Solubility:** water to 100 mM**Storage:** Store at RT**Batch Molecular Structure:****2. ANALYTICAL DATA****HPLC:** Shows 100% purity**<sup>1</sup>H NMR:** Consistent with structure**Mass Spectrum:** Consistent with structure**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 49.92 5.69 12.47

Found 50.09 5.59 12.51

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**Product Name:** Fasudil hydrochloride

**Catalog No.:** 0541

**Batch No.:** 4

**CAS Number:** 105628-07-7

**IUPAC Name:** 1-(5-Isoquinolinesulfonyl)homopiperazine hydrochloride

**Description:**

Cyclic nucleotide-dependent protein kinase inhibitor and Rho-associated kinase inhibitor ( $IC_{50} = 10.7 \mu M$ ).  $Ca^{2+}$  antagonist and vasodilator. Also inhibits proliferation of vascular smooth muscle cells.

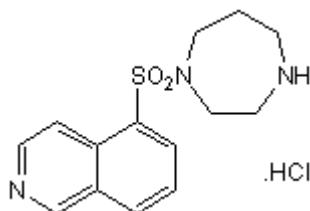
**Physical and Chemical Properties:**

 Batch Molecular Formula:  $C_{14}H_{17}N_3O_2S \cdot HCl \cdot \frac{1}{2}H_2O$ 

Batch Molecular Weight: 336.84

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**

**Storage:** Store at RT

**Solubility & Usage Info:**

water 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.

**References:**

**Shirotani et al** (1991) A new type of vasodilator, HA1077, an isoquinoline derivative, inhibits proliferation of bovine vascular smooth muscle cells in culture. *J.Pharmacol.Exp.Ther.* **259** 738. PMID: 1941621.

**Arai et al** (1993) Inhibition by the protein kinase inhibitor HA-1077 of the activation of NADPH oxidase in human neutrophils. *Biochem.Pharmacol.* **46** 1487. PMID: 8240400.

**Satoh et al** (1996) Neuroprotective properties of a protein kinase inhibitor against ischaemia-induced neuronal damage in rats and gerbils. *Br.J.Pharmacol.* **118** 1592. PMID: 8842419.

**Sward et al** (2000) Inhibition of Rho-associated kinase blocks agonist-induced  $Ca^{2+}$  sensitization of myosin phosphorylation and force in guinea-pig ileum. *J.Physiol.* **522** 33. PMID: 10618150.

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