

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** HA 1100 hydrochloride

**Catalog No.:** 2415

**Batch No.:** 1

**CAS Number:** 155558-32-0

**IUPAC Name:** 1-[(1,2-Dihydro-1-oxo-5-isoquinolinyl)sulfonyl]hexahydro-1*H*-1,4-diazepine hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

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

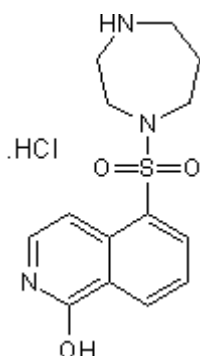
**Batch Molecular Weight:** 352.84

**Physical Appearance:** White solid

**Solubility:** water to 20 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows >99.7% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen	Sulfur
Theoretical	47.66	5.43	11.91	9.09
Found	47.92	5.17	11.66	9.41

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

## Product Information

[www.tocris.com](http://www.tocris.com)

**Product Name:** HA 1100 hydrochloride

**Catalog No.:** 2415

**Batch No.:** 1

**CAS Number:** 155558-32-0

**IUPAC Name:** 1-[(1,2-Dihydro-1-oxo-5-isoquinoliny)lsulfonyl]hexahydro-1H-1,4-diazepine hydrochloride

### Description:

Cell-permeable active metabolite of Fasudil (HA 1077; Cat. No. 0541). Produces ATP-competitive and reversible inhibition of Rho-kinase and is ~ 100-fold selective over a range of other protein kinases. Inhibits neutrophil migration and produces potent vasodilatory effects in vivo.

### Physical and Chemical Properties:

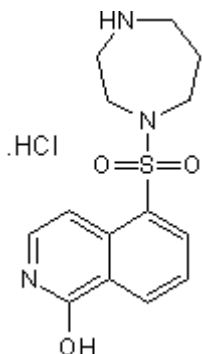
Batch Molecular Formula: C<sub>14</sub>H<sub>17</sub>N<sub>3</sub>O<sub>3</sub>S.HCl.½H<sub>2</sub>O

Batch Molecular Weight: 352.84

Physical Appearance: White solid

**Minimum Purity:** >99%

### Batch Molecular Structure:



**Storage:** Store at -20°C

### Solubility & Usage Info:

water 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. 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:

**Arai et al** (1993) Inhibition by the protein kinase inhibitor HA1077 of the activation of NADPH oxidase in human neutrophils. *Biochem.Pharmacol.* **46** 1487. PMID: 8240400.

**Shimokawa et al** (1999) Rho-kinase-mediated pathway induces enhanced myosin light chain phosphorylations in a swine model of coronary artery spasm. *Cardiovasc.Res.* **43** 1029. PMID: 10615430.

**Utsunomiya et al** (2001) Antianginal effects of hydroxyfasudil, a Rho-kinase inhibitor, in a canine model of effort angina. *Br.J.Pharmacol.* **134** 1724. PMID: 11739249.

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](http://www.tocris.com/distributors)  
Tel: +1 612 379 2956