

Certificate of Analysis

www.tocris.com

Product Name: H 89 dihydrochloride

Catalog No.: 2910

Batch No.: 6

CAS Number: 130964-39-5

IUPAC Name: *N*-[2-[[3-(4-Bromophenyl)-2-propenyl]amino]ethyl]-5-isoquinolinesulfonamide dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₀BrN₃O₂S·2HCl·³/₄H₂O

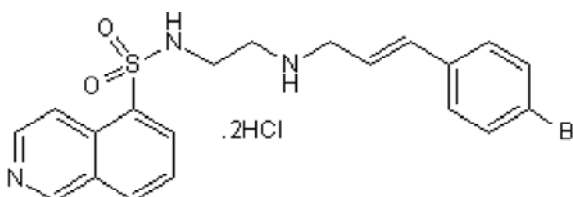
Batch Molecular Weight: 532.79

Physical Appearance: White solid

Solubility: water to 25 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Chloroform:Methanol [9:1])

HPLC: Shows 99.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	45.09	4.45	7.89
Found	45.08	4.52	7.72

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

Product Name: H 89 dihydrochloride

Catalog No.: 2910

Batch No.: 6

CAS Number: 130964-39-5

IUPAC Name: N-[2-[[3-(4-Bromophenyl)-2-propenyl]amino]ethyl]-5-isoquinolinesulfonamide dihydrochloride

Description:

H 89 dihydrochloride is a protein kinase A inhibitor that also inhibits several other kinases (IC₅₀ values are 80, 120, 135, 270, 2600 and 2800 nM for S6K1, MSK1, PKA, ROCKII, PKB α and MAPKAP-K1b). Exhibits antinociceptive activity. Enhances survival and clonogenicity of dissociated human ESCs through ROCK inhibition.

Physical and Chemical Properties:

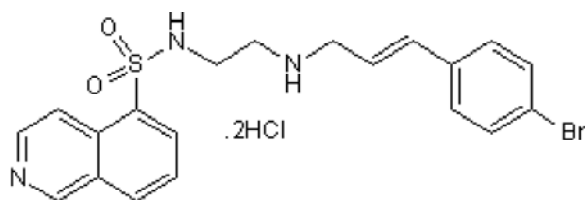
Batch Molecular Formula: C₂₀H₂₀BrN₃O₂S.2HCl.¾H₂O

Batch Molecular Weight: 532.79

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 25 mM

DMSO to 100 mM

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Zhang *et al* (2016) Protein kinase A inhibitor, H89, enhances survival and clonogenicity of dissociated human embryonic stem cells through Rho-associated coiled-coil containing protein kinase (ROCK) inhibition. *Hum.Reprod.* **31** 832. PMID: 26848187.

Lochner and Moolman (2006) The many faces of H89: a review. *Cardiovasc.Drug Rev.* **24** 261. PMID: 17214602.

Vitolo *et al* (2002) Amyloid β -peptide inhibition of the PKA/CREB pathway and long-term potentiation: reversibility by drugs that enhance cAMP signaling. *Proct.Natl.Acad.Sci.USA* **99** 13217. PMID: 12244210.

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