

Certificate of Analysis

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Product Name: C-1

Catalog No.: 0543

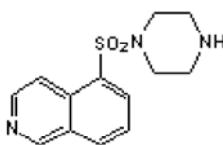
Batch No.: 1

CAS Number: 84468-24-6

IUPAC Name: 1-(5-Isoquinolinesulfonyl)piperazine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₅N₃O₂S.1½H₂O
Batch Molecular Weight: 304.36
Physical Appearance: Yellow crystalline solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 51.3 | 5.96 | 13.81 |
| Found | 51.5 | 5.19 | 3.84 |

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

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Product Information

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Product Name: C-1

Catalog No.: 0543

Batch No.: 1

CAS Number: 84468-24-6

IUPAC Name: 1-(5-Isoquinolinesulfonyl)piperazine

Description:

Protein kinase inhibitor. Inhibits PKG, PKA and PKC (IC₅₀ values are 4, 8 and 12 µM, respectively). Widely used as a ROCK inhibitor. Increases efficiency of human fibroblast reprogramming with PD 0325901 (Cat.No 4192), CHIR 99021 (Cat.No 4432), A 83-01 (Cat.No 2939) and hLIF. Improves survival of human pluripotent stem cells in culture.

Physical and Chemical Properties:

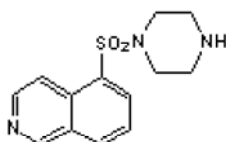
Batch Molecular Formula: C₁₃H₁₅N₃O₂S.1½H₂O

Batch Molecular Weight: 304.36

Physical Appearance: Yellow crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO 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:

Chen *et al* (2011) Chemically defined conditions for human iPSC derivation and culture. *Nat.Methods* **8** 424. PMID: 21478862.

Yu *et al* (2011) Efficient feeder-free episomal reprogramming with small molecules. *PLoS.One.* **6** e17557. PMID: 21390254.

Gerard *et al* (1986) Role of protein kinases in stimulation of human polymorphonuclear leukocyte oxidation metabolism by various agonists. *J.Clin.Invest.* **77** 61. PMID: 3003155.

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