

Certificate of Analysis

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Product Name: KHS 101 hydrochloride

Catalog No.: 4888

Batch No.: 1

IUPAC Name: *N*4-(2-Methylpropyl)-*N*2-[(2-phenyl-4-thiazolyl)methyl]-2,4-pyrimidinediamine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₂₁N₅S.HCl.½H₂O

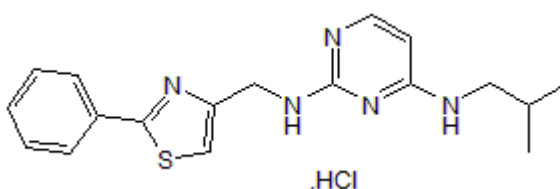
Batch Molecular Weight: 384.93

Physical Appearance: Off White solid

Solubility: DMSO to 50 mM
ethanol to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.7 (Chloroform:Methanol (NH₄OH) [9:1])

HPLC: Shows >99.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 56.17 | 6.02 | 18.19 |
| Found | 56.39 | 5.89 | 18.25 |

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

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Description:

Selective inducer of neuronal differentiation; induces neuronal differentiation in cultured hippocampal neural progenitor cells (NPCs) by interacting with TACC3 (EC₅₀ ~1 μM). Suppresses astrocyte formation. Also induces acceleration of neuronal differentiation in the hippocampal dentate gyrus in vivo.

Physical and Chemical Properties:

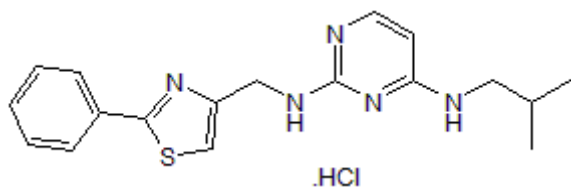
Batch Molecular Formula: C₁₈H₂₁N₅S.HCl.½H₂O

Batch Molecular Weight: 384.93

Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 50 mM
ethanol to 50 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:

Wurdak et al (2010) A small molecule accelerates neuronal differentiation in the adult rat. *Proc.Natl.Acad.Sci.USA.* **107** 16542. PMID: 20823227.

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