

**Product Name:** KHS 101 hydrochloride

**Catalog No.:** 4888

**Batch No.:** 1

CAS Number: 1784282-12-7

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

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>18</sub>H<sub>21</sub>N<sub>5</sub>S.HCl.½H<sub>2</sub>O

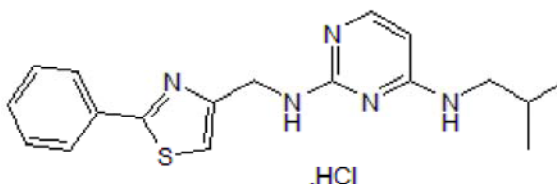
**Batch Molecular Weight:** 384.93

**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<sub>f</sub> = 0.7 (Chloroform:Methanol (NH<sub>4</sub>OH) [9:1])

**HPLC:** Shows 99.6% purity

**<sup>1</sup>H 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

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**Description:**

KHS 101 hydrochloride is a selective inducer of neuronal differentiation; induces neuronal differentiation in cultured hippocampal neural progenitor cells (NPCs) by interacting with TACC3 (EC<sub>50</sub> ~1 μM). Suppresses astrocyte formation. Also induces acceleration of neuronal differentiation in the hippocampal dentate gyrus in vivo.

**Physical and Chemical Properties:**

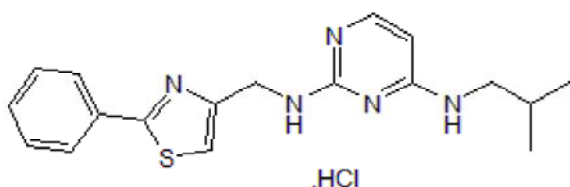
Batch Molecular Formula: C<sub>18</sub>H<sub>21</sub>N<sub>5</sub>S.HCl.½H<sub>2</sub>O

Batch Molecular Weight: 384.93

Physical Appearance: Off White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**References:**

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

**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.

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