

Product Name: SB 747651A dihydrochloride

Catalog No.: 4630

Batch No.: 3

CAS Number: 1781882-72-1

IUPAC Name: 2-(4-Amino-1,2,5-oxadiazol-3-yl)-1-ethyl-N-4-piperidinyl-1*H*-imidazo[4,5-*c*]pyridine-7-methanamine dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₂₂N₈O.2HCl.¼H₂O

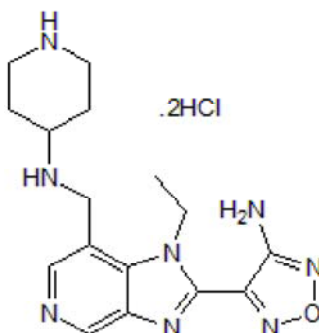
Batch Molecular Weight: 419.82

Physical Appearance: White solid

Solubility: water to 50 mM
DMSO to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	45.77	5.88	26.69
Found	45.89	6	26.4

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

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Description:

SB 747651A dihydrochloride is a potent, ATP-competitive mitogen- and stress-activated kinase 1 (MSK1) inhibitor (IC₅₀ = 11 nM in an in vitro kinase assay); targets the N-terminal kinase domain. Inhibits MSK1, MSK2, PKA, PKB, RSK and p70^{S6K} activity in cells. Blocks IL-10 production in macrophages.

Physical and Chemical Properties:

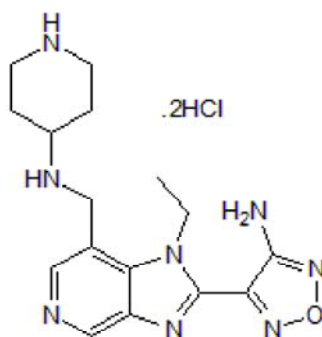
Batch Molecular Formula: C₁₆H₂₂N₈O.2HCl.¼H₂O

Batch Molecular Weight: 419.82

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 50 mM

DMSO 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.

Licensing Information:

Sold with the permission of GlaxoSmithKline.

References:

Naqvi et al (2012) Characterization of the cellular action of the MSK inhibitor SB-747651A. *Biochem.J.* **441** 347. PMID: 21970321.

Bamford et al (2005) (1H-imidazo[4,5-c]pyridin-2-yl)-1,2,5-oxadiazol-3-ylamine derivatives: further optimisation as highly potent and selective MSK-1-inhibitors. *Bioorg.Med.Chem.Lett.* **15** 3407. PMID: 15955699.

Bamford et al (2005) (1H-imidazo[4,5-c]pyridin-2-yl)-1,2,5-oxadiazol-3-ylamine derivatives: a novel class of potent MSK-1-inhibitors. *Bioorg.Med.Chem.Lett.* **15** 3402. PMID: 15950465.

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