

Product Name: RepSox

Catalog No.: 3742

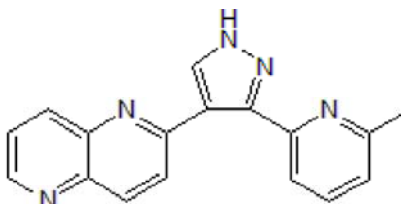
Batch No.: 4

CAS Number: 446859-33-2

IUPAC Name: 2-(3-(6-Methylpyridine-2-yl)-1*H*-pyrazol-4-yl)-1,5-naphthyridine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₃N₅
Batch Molecular Weight: 287.32
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
 ethanol to 20 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

	Carbon Hydrogen Nitrogen		
	Carbon	Hydrogen	Nitrogen
Theoretical	71.06	4.56	24.37
Found	71.24	4.57	24.29

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

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Description:

RepSox is a potent and selective inhibitor of the TGF- β type I receptor/ALK5 (IC_{50} values are 4 and 23 nM for TGF- β type I receptor autophosphorylation and binding respectively). Selective for TGF- β type I receptor over a range of kinases, including p38 MAPK, JNK1 and GSK3 (IC_{50} > 16 μ M). Enhances the efficiency of cellular reprogramming; replaces Sox2 by inducing Nanog expression. RepSox synthesized to Ancillary Material Grade also available. For more information about how RepSox may be used, see our protocols: Highly Efficient Generation of CiPSCs from MEFs, Generation of β cells from hPSCs, Reprogramming ... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

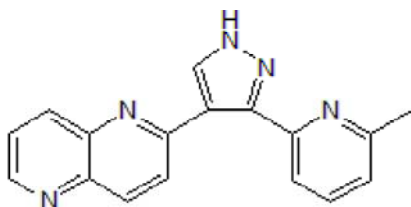
Batch Molecular Formula: C₁₇H₁₃N₅

Batch Molecular Weight: 287.32

Physical Appearance: Off White solid

Minimum Purity: \geq 99%

Batch Molecular Structure:



References:

Ichida *et al* (2009) A small-molecule inhibitor of Tgf- β signaling replaces Sox2 in reprogramming by inducing *Nanog*. *Cell Stem Cell* **5** 491. PMID: 19818703.

Li *et al* (2009) Generation of rat and human induced pluripotent stem cells by combining genetic reprogramming and chemical inhibitors. *Cell Stem Cell* **4** 16. PMID: 19097958.

Gellibert *et al* (2004) Identification of 1,5-naphthyridine derivatives as a novel series of potent and selective TGF- γ type I receptor inhibitors. *J.Med.Chem.* **47** 4494. PMID: 15317461.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 20 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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