

**Product Name:** RepSox

**Catalog No.:** 3742

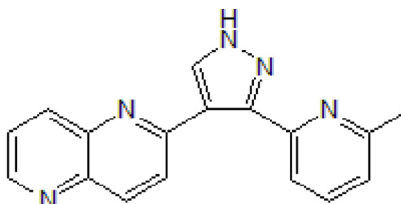
**Batch No.:** 9

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:** C<sub>17</sub>H<sub>13</sub>N<sub>5</sub>.  
**Batch Molecular Weight:** 287.32  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 20 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.6 % purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

	Carbon Hydrogen Nitrogen		
	Carbon	Hydrogen	Nitrogen
Theoretical	71.06	4.56	24.37
Found	70.97	4.51	24.16

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<sub>50</sub> values are 4 and 23 nM for TGF-β type I receptor autophosphorylation and binding respectively). RepSox is selective for TGF-β type I receptor over a range of kinases, including p38 MAPK, JNK1 and GSK3 (IC<sub>50</sub> > 16 μM). 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, Repro... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

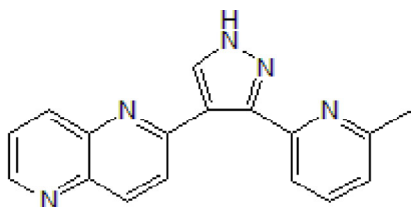
Batch Molecular Formula: C<sub>17</sub>H<sub>13</sub>N<sub>5</sub>.

Batch Molecular Weight: 287.32

Physical Appearance: White solid

**Minimum Purity:** ≥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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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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