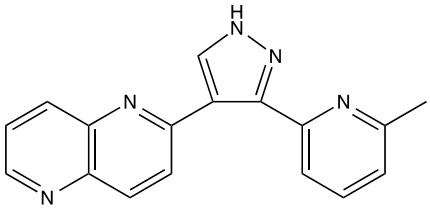
**Catalog # 10-4546**

**RepSox**

CAS# 446859-33-2

2-(3-(6-Methylpyridine-2-yl)-1H-pyrazol-4-yl)-1,5-naphthyridine; E-616452; SNJ 2511

Lot # FBA1268



RepSox is a potent ($IC_{50}$ ALK5 auto-P= 4 nM; $IC_{50}$ TGF-$_b$ cellular assay = 23 nM) inhibitor of the TGF-β type I receptor (ALK5).[1] RepSox can replace *Sox2* in reprogramming adult cells into pluripotent stem cells *via* induction of *Nanog* transcription.[2] It was able to convert astrocytes into neuronal cells as part of a small molecule cocktail (along with valproic acid and CHIR99021).[3,4]


1) Gellibert *et al.* (2004), *Identification of 1,5-Naphthyridine Derivatives as a Novel Series of Potent and Selective TGF-β Type I Receptor Inhibitors*; J.Med.Chem. **47** 4494
2) Ichida *et al.* (2009), *A Small-molecule Inhibitor of TGF-β Signaling Replaces Sox2 in Reprogramming by Inducing Nanog*; Cell Stem Cell **5** 491
3) Cheng *et al.* (2015), *Direct Conversion of astrocytes into neuronal cells by a drug cocktail*; Cell Res. **25** 1269
4) Cheng *et al.* (2014), *Generation of neural progenitor cells by chemical cocktails and hypoxia*; Cell Res. **24** 665


## PHYSICAL DATA

| | |
|---|---|
| Molecular Weight: | 287.32 |
| Molecular Formula: | $C_{17}H_{13}N_5$ |
| Purity: | 99% (HPLC) |
| | NMR: (Conforms) |
| Solubility: | Soluble in DMSO (>25 mg/ml) and ethanol (10 mg/mL) |
| Physical Description: | Pale yellow solid |
| Storage and Stability: | Store as supplied at -20ºC for up to 1 year from the date of purchase. Store solutions in DMSO or ethanol at -20ºC for up to 1 month. |

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