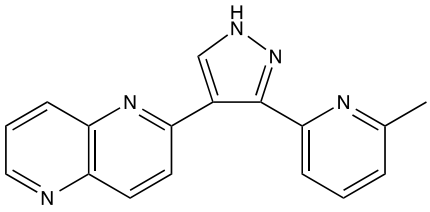
Catalog # 10-4546
RepSox

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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