Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

RepSox

Catalog No: tcsc1321

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
446859-33-2

Formula:
$C_{17}H_{13}N_5$

Pathway:
TGF-beta/Smad

Target:
TGF-β Receptor

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 52 mg/mL (180.98 mM)

Alternative Names:
E-616452;SJN 2511

Observed Molecular Weight:
287.32

Product Description

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RepSox is a potent and selective of the **TGFβR-1**/**ALK5** inhibitor, inhibits ALK5 autophosphorylation with **IC_{50}** of 4 nM.

IC50 & Target: IC50: 4 nM (ALK5 autophosphorylation)[1]

In Vitro: RepSox also inhibits ATP binding to ALK5 with IC_{50} of 23 nM. RepSox shows potent activity in both binding and cellular assays and exhibits selectivity over p38 mitogen-activated protein kinase. with IC_{50} of >16 μM[1]. RepSox act s as an inhibitor of the Tgfβ1 kinase. Treatment with 25 μM RepSox almost completely eliminates Smad3 phosphorylation, indicating that RepSox strongly inhibits Tgfβ signaling in somatic cells. RepSox is most effective at replacing *Sox2* during days 10-11 after transduction and that therefore cultures of *Oct4*, *Klf4*, and *cMyc*-transduced MEFs give rise to intermediates capable of responding to RepSox treatment. These intermediates appear at day 4 post-transduction and peak at days 10-11. Treatment with RepSox decreased the proportion of cells in G_2/M phase of the cell cycle, indicating it does not increase the proliferation rate of these partially reprogrammed cells[2].