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

SB 525334

Catalog No: tcsc0199

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
356559-20-1

Formula:
$C_{21}H_{21}N_5$

Pathway:
TGF-beta/Smad

Target:
TGF-β Receptor

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 46 mg/mL (133.95 mM)

Observed Molecular Weight:
343.42

Product Description

SB525334 is a potent and selective inhibitor of TGFβ receptor I (ALK5) with IC50 of 14.3 nM, is 4-fold less potent to ALK4 than ALK5

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and inactive to ALK2, 3, and 6.

IC50 value: 14.3 nM

Target: ALK5

in vitro: SB 525334 shows no inhibition in the enzymes ALK2, 3, and 6, with IC50 values > 10 μM. SB 525334 blocks phosphorylation induced by TGF-β1 and nuclear translocation of Smad2/3 in renal proximal tubule cells. SB 525334 also inhibits the increased mRNA expression levels of plasminogen activator inhibitor-1 (PAI-1) and procollagen α1(I) induced by TGF-β1 in A498 renal epithelial carcinoma cells at 1 μM) [1]. SB 525334 (1 μM) attenuates the heightened sensitivity to TGF-β1 exhibited by pulmonary artery smooth muscle cells (PASMCs) from patients with familial forms of idiopathic pulmonary arterial hypertension (PAH) [2].

in vivo: SB 525334 (10 mg/kg/day) decreases the renal mRNA levels of PAI-1, procollagen α1(I), and procollagen α1(III) in a nephritis-induced renal fibrosis rat model. Furthermore, PAN-induced proteinuria is significantly inhibited by SB 525334 (10 mg/kg/day) [1]. SB 525334 may also be efficacious in mesenchymal tumors. SB 525334 (10 mg/kg/day) significantly decreases uterine mesenchymal tumor incidence, multiplicity, and size in Eker rats [3].