

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 : \geq 46 mg/mL (133.95 mM)

Observed Molecular Weight:

343.42

Product Description

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

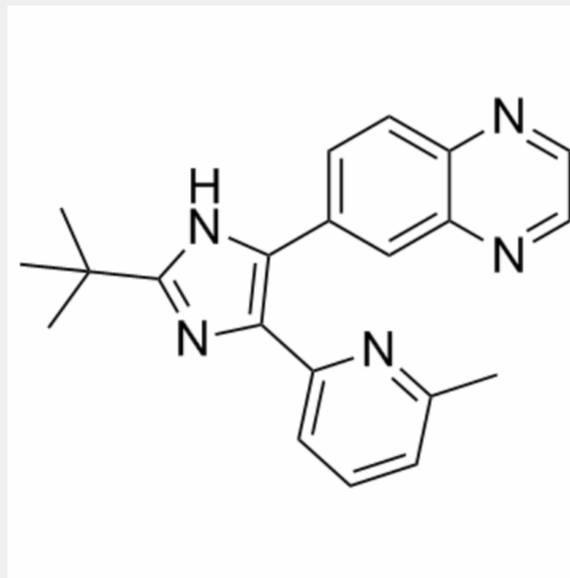
and inactive to ALK2, 3, and 6.

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 μ M. SB 525334 blocks phosphorylation induced by TGF- β 1 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 α 1(I) induced by TGF- β 1 in A498 renal epithelial carcinoma cells at 1 μ M [1]. SB 525334 (1 μ M) attenuates the heightened sensitivity to TGF- β 1 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 α 1(I), and procollagen α 1(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].



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