

# SB-505124

Catalog No: tcsc1582



## Available Sizes

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

694433-59-5

**Formula:**

$C_{20}H_{21}N_3O_2$

**Pathway:**

TGF-beta/Smad

**Target:**

TGF- $\beta$  Receptor

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 113.33 mg/mL (337.90 mM; Need ultrasonic)

**Observed Molecular Weight:**

335.4

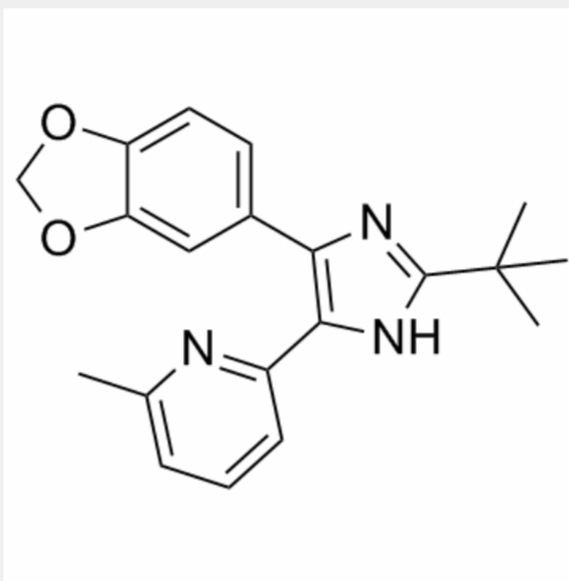
## Product Description

SB-505124 is a selective inhibitor of **TGF $\beta$ R** with **IC<sub>50</sub>** of 129 nM and 47 nM for **ALK4**, **ALK5**, respectively, and it does not inhibits ALK1, 2, 3, or 6 but ALK7.

IC50 & Target: IC50: 129 nM (ALK4), 47 nM (ALK5)

**In Vitro:** SB-505124 demonstrates no toxicity to renal epithelial A498 cells at concentrations up to 100  $\mu$ M for 48 h. 505124 inhibits

the closely related ALK4 with an  $IC_{50}$  value of  $129 \pm 11$  nM (about 2.5-fold less sensitive than ALK5) but does not inhibit ALK2 at concentrations up to 10  $\mu$ M. SB-505124 (1  $\mu$ M) inhibits the TGF- $\beta$ -induced phosphorylation of Smad2 in all three of these cell lines in a concentration-dependent fashion. SB-505124 (1 or 5  $\mu$ M) potently inhibits TGF- $\beta$ -induced activation of JNK/SAP, extracellular signal-regulated kinase 1/2, and p38 despite the different patterns of activation in these cells<sup>[1]</sup>. SB-505124 (10  $\mu$ M) impairs Smad2 phosphorylation and CTGF and  $\alpha$ -SMA expression in vitro<sup>[2]</sup>. SB-505124 suppresses CTGF and  $\alpha$ -SMA observed by immunofluorescence. Cell outgrowth from explants dissected from eyes to which SB-505124 is applied during GFS is robust while outgrowth is poor from those treated with MMC<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!