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SD-208

Catalog No: tcsc0895

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
627536-09-8

Formula:
$C_{17}H_{10}ClFN_6$

Pathway:
TGF-beta/Smad

Target:
TGF-β Receptor

Purity / Grade:
>98%

Solubility:
DMSO : 9.09 mg/mL (25.77 mM; Need ultrasonic); H2O :

Observed Molecular Weight:
352.75

Product Description

SD-208 is a selective **TGF-βRI (ALK5)** inhibitor with **IC_{50}** of 48 nM, and > 100-fold selectivity over TGF-βRII.

IC50 & Target: IC50: 48 nM (TGF-βRI)

In Vitro: SD-208 inhibits the cell growth and constitutive and TGF-beta-evoked migration and invasion, and enhances immunogenicity in murine SMA-560 and human LN-308 glioma cells[1]. SD-208 blocks TGF-beta-induced phosphorylation of the

receptor-associated Smads, Smad2 and Smad3, and stimulates epithelial-to-mesenchymal transdifferentiation, migration, and invasiveness into Matrigel in vitro[2]. SD-208 also abolishes the promoting effect of TGF-β on neointimal smooth muscle-like cell (SMLC) proliferation and migration in vitro[3].

In Vivo: SD-208 (1 mg/mL, p.o.) significantly prolongs the median survival of SMA-560 glioma-bearing mice[1]. In syngeneic 129S1 mice, SD-208 (60 mg/kg/d, p.o.) inhibits primary R3T tumor growth, and reduces the number and the size of lung metastases[2]. In the murine aortic allograft model, SD-208 effectively reduces the formation of intimal hyperplasia of transplant arteriosclerosis (TA)[3].