

Product Name : SB-431542

Synonyms : SB 431542;SB431542

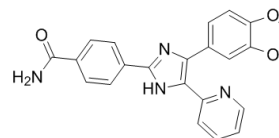
Cat No. : M13943

CAS Number : 301836-41-9

Molecular Formula : C₂₂H₁₆N₄O₃

Formula Weight : 384.39

Chemical Name : Benzamide, 4-[4-(1,3-benzodioxol-5-yl)-5-(2-pyridinyl)-1H-imidazol-2-yl]-



Description : SB-431542 is a potent, specific TGF- β type I receptor (ALK5) inhibitor with IC₅₀ of 94 nM; also substantially inhibits ALK4 and 7, but not other ALKs; efficiently inhibits the ability of activated ALK4, ALK5, and ALK7 to phosphorylate Smad2; a selective inhibitor of endogenous activin and TGF-beta signaling but has no effect on BMP signaling, and has no effect on components of the ERK, JNK, or p38 MAP kinase pathways.

Pathway : TGF-beta/Smad

Target : TGFBR

Receptor : ALK5;ALK4

Solubility : DMSO: ≥ 40 mg/mL; Ethanol: 11.17 mg/mL (Need ultrasonic and warming)

SMILES : O=C(N)C1=CC=C(C2=NC(C3=CC=C(OCO4)C4=C3)=C(C5=NC=CC=C5)N2)C=C1

Storage : (-20°C)

Stability : ≥ 2 years

Reference :

1. Callahan JF, et al. J Med Chem. 2002 Feb 28;45(5):999-1001. | 2. Inman GJ, et al. Mol Pharmacol. 2002 Jul;62(1):65-74. | 3. Matsuyama S, et al. Cancer Res. 2003 Nov 15;63(22):7791-8. | 4. Hjelmeland MD, et al. Mol Cancer Ther. 2004 Jun;3(6):737-45.