

Product Name : LDN193189 hydrochloride

Synonyms : LDN 193189 hydrochloride; LDN-193189 hydrochloride

Cat No. : M10278

CAS Number : 1062368-62-0

Molecular Formula : C₂₅H₂₆Cl₄N₆

Formula Weight : 552.33

Chemical Name : Quinoline, 4-[6-[4-(1-piperazinyl)phenyl]pyrazolo[1,5-a]pyrimidin-3-yl]-, hydrochloride (1:1)

Description

LDN193189 is a potent, selective BMP type I receptor that inhibits BMP4-induced phosphorylation of SMAD1/5/8 with IC₅₀ of 5 nM, displays >200-fold selectivity for BMP signaling over TGF-β signaling (IC₅₀>1,000 nM); efficiently inhibits transcriptional activity of the BMP type I receptors ALK2 and ALK3 (IC₅₀=5 nM and 30 nM, respectively), with weaker effects on activin and the TGF-β type I receptors ALK4, ALK5 and ALK7; also blocks the transcriptional activity induced by either constitutively active ALK2 R206H or ALK2 Q207D mutant proteins, affects BMP-induced osteoblast differentiation, attenuates ectopic ossification in vivo.

Pathway : Angiogenesis

Target : ALK

Receptor : ALK2; ALK3

Solubility : H₂O: 20 mg/mL

SMILES : [H]Cl.C1(C2=C3N=CC(C4=CC=C(N5CCNCC5)C=C4)=CN3N=C2)=CC=NC6=CC=CC=C16

Storage : (-20°C)

Stability : ≥ 2 years

Reference :

1. Yu PB, et al. Nat Med. 2008 Dec;14(12):1363-9. | 2. Cuny GD, et al. Bioorg Med Chem Lett. 2008 Aug 1;18(15):4388-92. | 3. Cannon JE, et al. Br J Pharmacol. 2010 Sep;161(1):140-9. | 4. Steinbicker AU, et al. Blood. 2011 May 5;117(18):4915-23.

