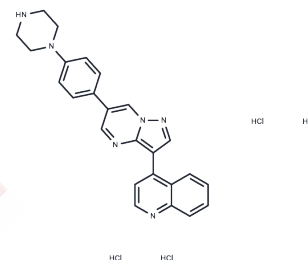


LDN-193189 Tetrahydrochloride

Chemical Properties

CAS No. :	2310134-98-4
Formula:	C ₂₅ H ₂₆ Cl ₄ N ₆
Molecular Weight:	552.33
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	LDN-193189 Tetrahydrochloride (DM-3189 Tetrahydrochloride) is a selective inhibitor of BMP type I receptors, inhibiting ALK2 and ALK3 (IC ₅₀ = 5/30 nM), with weaker activity against ALK4, ALK5, and ALK7, and can be used for research into progressive osseous fibrodysplasia.
Targets(IC50)	ALK,TGF-beta/Smad
In vitro	LDN-193189 Tetrahydrochloride potently inhibits the kinase activity of ALK4 and ActRIIA with IC50 values of 101 and 210 nM, respectively.[2]
In vivo	Methods: SCID mice bearing MDA-PCa-118b tumor xenografts were treated with LDN-193189 Tetrahydrochloride (3 mg/kg, intraperitoneal injection, twice daily). Tumor size and body weight were measured weekly to investigate the effect of LDN-193189 Tetrahydrochloride on tumor growth in vivo. Results: Treatment of MDA-PCa-118b tumor-bearing mice with LDN-193189 Tetrahydrochloride resulted in decreased bone formation and attenuated tumor growth. [1]

Solubility Information

Solubility	H ₂ O: 25 mg/mL (45.26 mM),Sonication is recommended. DMSO: 3.3 mg/mL (5.97 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8105 mL	9.0526 mL	18.1051 mL
5 mM	0.3621 mL	1.8105 mL	3.621 mL
10 mM	0.1811 mL	0.9053 mL	1.8105 mL
50 mM	0.0362 mL	0.1811 mL	0.3621 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lee YC, et al. BMP4 promotes prostate tumor growth in bone through osteogenesis. *Cancer Res.* 2011 Aug 1;71(15):5194-203.

Horbelt D, et al. Small molecules dorsomorphin and LDN-193189 inhibit myostatin/GDF8 signaling and promote functional myoblast differentiation. *J Biol Chem.* 2015 Feb 6;290(6):3390-404.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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