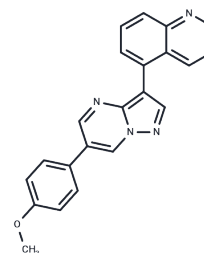


ML347

Chemical Properties

CAS No. : 1062368-49-3
 Formula: C₂₂H₁₆N₄O
 Molecular Weight: 352.39
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	ML347 (LDN 193719)(DN193719) is a highly specific ALK1/2 inhibitor (IC ₅₀ : 46/32 nM), and the selectivity for ALK2 is >300-fold than ALK3.
Targets(IC ₅₀)	ALK,TGF-beta/Smad
In vivo	In both human and rat plasma, ML347 exhibits high binding affinity with plasma proteins. Additionally, ML347 demonstrates significant efficacy in C2C12BRA cells responsive to BMP signaling, evidenced by an IC ₅₀ value of 15 nM.
Kinase Assay	Kinase assay: All kinase assays are conducted by Reaction Biology Corp. In brief, compounds are tested at 10 concentrations by 3-fold serial dilutions starting at 30 μM, using nonspecific kinase inhibitor staurosporine as control. In vitro kinase reactions are carried out in the presence of 10 μM (33P)γATP. Five kinases tested are the human BMP type-I receptor activin receptor-like kinase 2 (ALK-2/ACVR1), the human TGFβ type-I receptor activin receptor-like kinase 5 (Alk5/TGFβR1), the human VEGF type-II receptor (KDR/Flk-1/VEGFR2), the human AMP-activated protein kinase (AMPK/A1/B1/G1) and the human platelet-derived growth factor receptor-β (PDGFRβ).

Solubility Information

Solubility	DMSO: 1 mg/mL (2.84 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	2.8378 mL	14.1888 mL	28.3776 mL
5 mM	0.5676 mL	2.8378 mL	5.6755 mL
10 mM	0.2838 mL	1.4189 mL	2.8378 mL
50 mM	0.0568 mL	0.2838 mL	0.5676 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

Engers DW, et al. Bioorg Med Chem Lett. 2013, 23(11), 3248-3252.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481