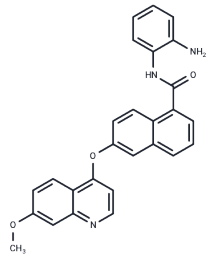
Data Sheet (Cat.No.T35570)

TargetMol

Chiauranib

Chemical Properties



CAS No. : 1256349-48-0

Formula: C27H21N3O3

Molecular Weight: 435.47

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	Chiauranib is a multi-target inhibitor against tumor angiogenesis and exhibits potent anticancer effects. Chiauranib potently inhibits the angiogenesis-related kinases (VEGFR1, VEGFR2, VEGFR3, PDGFRα and c-Kit), mitosis-related kinase Aurora B, and chronic inflammation-related kinase CSF1R, with IC50 values ranging from 1-9 nM.
Targets(IC50)	c-Fms,FLT,Aurora Kinase,c-Kit,PDGFR,VEGFR
In vitro	In HUVEC and PDGFRβ phosphorylation in PDGFRβ overexpressed NIH3T3 cells, Chiauranib (CS2164; 0.03-3 μM) suppressed VEGFR/PDGFR phosphorylation, inhibited ligand-dependent cell proliferation, and capillary tube formation, and prevented vasculature formation in tumor tissues. Chiauranib (CS2164) inhibited CSF-1R phosphorylation that lead to the suppression of ligand-stimulated monocyte-to-macrophage differentiation and reduced CSF-1R+ cells in tumor tissues. Chiauranib (3 μM; 24 hours) showed induction of G2/M cell cycle arrest and suppression of cell proliferation in tumor tissues through the inhibition of Aurora B-mediated H3 phosphorylation[1].
In vivo	Chiauranib exhibited broad and potent anti-tumor activities in vivo. Chiauranib (2.5 mg/kg, 5 mg/kg, 10 mg/kg, 20 mg/kg, 40 mg/kg; oral) induced remarkable regression or complete inhibition of tumor growth at well-tolerated oral doses in several human tumor xenograft models[1].

Solubility Information

Solubility	DMSO: 58.75 mg/mL (134.91 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5.88 mg/mL (13.5 mM),Solution. 10% DMSO+90% Saline: < 5.88 mg/mL (13.5 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2964 mL	11.4818 mL	22.9637 mL
5 mM	0.4593 mL	2.2964 mL	4.5927 mL
10 mM	0.2296 mL	1.1482 mL	2.2964 mL
50 mM	0.0459 mL	0.2296 mL	0.4593 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

Zhou Y, et al. CS2164, a novel multi-target inhibitor against tumor angiogenesis, mitosis and chronic inflammation with anti-tumor potency. Cancer Sci. 2017 Mar;108(3):469-477.