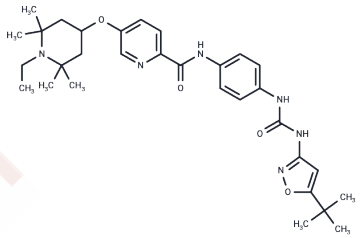
Data Sheet (Cat.No.TQ0235)

TargetMol

AC710

Chemical Properties



CAS No. : 1351522-04-7

Formula: C31H42N6O4

Molecular Weight: 562.7

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	AC710 is a potent PDGFR inhibitor with Kds of 0.6 nM for FLT3, 1 nM for KIT, 1.57 nM for CSF1R, 1.3 nM for PDGFRα, and 1 nM for PDGFRβ.
Targets(IC50)	FLT,c-Kit,PDGFR
In vivo	At a dosage of 0.3 mg/kg, AC710 transiently inhibits tumor growth, with rapid resumption following cessation. Doses of 3 and 30 mg/kg result in complete tumor regression and prolonged suppression of tumor volume post-treatment. Notably, administration of AC710 does not lead to bodyweight loss in treated animals across all tested doses. Further, AC710 significantly mitigates disease progression in a mouse collagen-induced arthritis (CIA) model in a dose-dependent manner, starting from a low dose of 3 mg/kg over a span of 15 days (day 0-14). At increased dosages of 10 and 30 mg/kg, AC710's effectiveness in reducing joint swelling and inflammation is comparable or slightly superior to that of dexomethasone administered at a safe dose.
Animal Research	The antitumor efficacy of AC710 is assessed in a subcutaneous flank-tumor xenograft model in athymic nude mice using the MV4-11cell line. AC710 is dosed at 0.3, 3, and 30 mg/kg for 2 weeks. Tumor growth and body weight are monitored.

Solubility Information

Solubility	DMSO: 15 mg/mL (26.66 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 0.5 mg/mL (0.89 mM),Sonication is recommended. *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	1.7771 mL	8.8857 mL	17.7715 mL
5 mM	0.3554 mL	1.7771 mL	3.5543 mL
10 mM	0.1777 mL	0.8886 mL	1.7771 mL
50 mM	0.0355 mL	0.1777 mL	0.3554 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

Liu G, et al. Discovery of AC710, a Globally Selective Inhibitor of Platelet-Derived Growth Factor Receptor-Family Kinases. ACS Med Chem Lett. 2012 Sep 24;3(12):997-1002.