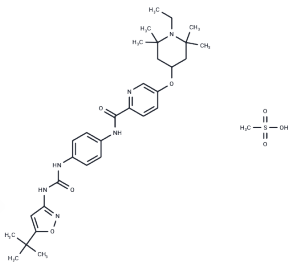
Data Sheet (Cat.No.T10228)

TargetMol

AC710 Mesylate

Chemical Properties



CAS No. : 1351522-05-8

Formula: C32H46N6O7S

Molecular Weight: 658.81

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 Mesylate is a potent PDGFR inhibitor with dissociation constants (Kds) of 0.6 nM for FLT3, 1.57 nM for CSF1R, 1 nM for KIT, 1.3 nM for PDGFRα, and 1.0 nM for PDGFRβ.
Targets(IC50)	PDGFR
In vivo	At a dosage of 0.3 mg/kg, AC710 temporarily inhibits tumor growth, which then quickly resumes. However, at dosages of 3 and 30 mg/kg, AC710 induces complete tumor regression, with the reduction in tumor volume remaining for an extended period post-treatment cessation. Furthermore, no loss of body weight is observed in AC710-treated animals across all dosages, suggesting good tolerability in mice. Efficacy of AC710 is also noted in a mouse collagen-induced arthritis (CIA) model, showing significant disease impact in a dose-dependent manner, with noticeable effects starting from a dosage as low as 3 mg/kg over a 15-day period (day 0-14). At higher doses (10 and 30 mg/kg), AC710 is as effective, if not more so, than dexamethasone in reducing joint swelling and inflammation when 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.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5179 mL	7.5894 mL	15.1789 mL
5 mM	0.3036 mL	1.5179 mL	3.0358 mL
10 mM	0.1518 mL	0.7589 mL	1.5179 mL
50 mM	0.0304 mL	0.1518 mL	0.3036 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.