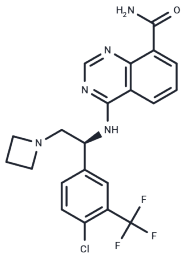
Data Sheet (Cat.No.T11928)

TargetMol

M2698

Chemical Properties



CAS No. : 1379545-95-5

Formula: C21H19ClF3N5O

Molecular Weight: 449.86

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	M2698 (MSC2363318A) is an inhibitor of p70S6K, Akt1 and Akt3 with IC50s of 1 nM. M2698 shows anti-cancer activity.
Targets(IC50)	Akt,mTOR,S6 Kinase
In vitro	M2698 (0.3 nM-50 M) dose-dependently inhibits proliferation in breast tumor cell lines (IC50s: 0.02-8.5 μM). M2698 (0.3-1 μM) induces feedback loop phosphorylation on Akt and suppresses Akt and p70S6K activity in HCC1419 and MDA-MB-453 cells. M2698 inhibits indirectly pGSK3β and pS6 with IC50s of 17 and 15 nM[1].
In vivo	Gavage administration of M2698 (10-30 mg/kg) dose-dependently inhibits the growth of tumors and increases pAkt levels in tumor tissue. M2698 (30 mg/kg) causes tumor regression. M2698 (1-20 mg/kg) inhibits S6 phosphorylation in a dose-proportional manner over time[1].

Solubility Information

Solubility	DMSO: 112.5 mg/mL (250.08 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: 4 mg/mL (8.89 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	2.2229 mL	11.1146 mL	22.2291 mL
5 mM	0.4446 mL	2.2229 mL	4.4458 mL
10 mM	0.2223 mL	1.1115 mL	2.2229 mL
50 mM	0.0445 mL	0.2223 mL	0.4446 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

Machl A, et al. M2698 is a potent dual-inhibitor of p70S6K and Akt that affects tumor growth in mouse models of cancer and crosses the blood-brain barrier. Am J Cancer Res. 2016 Mar 15;6(4):806-18.