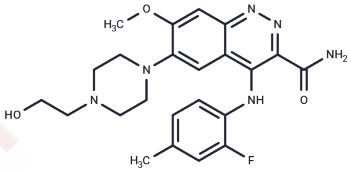
Data Sheet (Cat.No.T14380)

TargetMol

AZD7507

Chemical Properties



CAS No. : 1041852-85-0

Formula: C23H27FN6O3

Molecular Weight: 454.5

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	AZD7507 is a CSF-1R inhibitor with an IC50 of 32 nM. AZD7507 has antitumor activity.
Targets(IC50)	c-Fms,CSF-1R,Potassium Channel,Sodium Channel
In vitro	AZD7507 inhibits the proliferation of 3T3 cells engineered to express CSF-1R and stimulated with CSF-1. It shows inhibitory activity against hERG and NaV1.5, with IC50s of >30 and 26 μM[1].
In vivo	Xenografted mice were given liposomal clodronate (Lipclod) to selectively deplete phagocytic macrophages; AZD7507 to inhibit the activation of CSF receptor 1 (CSFR1), thereby preventing monocyte differentiation into macrophages; or appropriate vehicle alone[2]. In Lipclod-, GW2580-, and AZD7507-treated mice, we observed a significant decrease the number of CD68+ macrophages in the xenografted. Mice with CC-LP-1 and SNU-1079, but not WITT-1, xenografts demonstrated both reduced tumor volume and mass after treatment with Lipclod, GW2580, and AZD7507. Furthermore, of the 8 SNU-1079 xenografts that were palpable at 3 weeks, only 4 from the GW2580 group and 6 from the AZD7507 group were large enough to recover at week 6, as they were no longer palpable and too small to detect. In the CC-LP-1 group, only 3 of the 8 tumors were detectable at 6 weeks. (In the WITT-1 line, 7 xenografts were recovered from the GW2580 and 8 from the AZD7507 group.) Depletion of macrophages using Lipclod, GW2580, or AZD7507 in all 3 xenografted lines resulted in a reduction in murine Wnt7b expression at the mRNA level[2].

Solubility Information

Solubility	DMSO: 100 mg/mL (220.02 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 (8.8 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	2.2002 mL	11.0011 mL	22.0022 mL
5 mM	0.440 mL	2.2002 mL	4.4004 mL
10 mM	0.220 mL	1.1001 mL	2.2002 mL
50 mM	0.044 mL	0.220 mL	0.440 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

Scott DA, et al. Mitigation of cardiovascular toxicity in a series of CSF-1R inhibitors, and the identification of AZD7507. Bioorg Med Chem Lett. 2013 Aug 15;23(16):4591-6.
Boulter L, et al. WNT signaling drives cholangiocarcinoma growth and can be pharmacologically inhibited. Send to J Clin Invest. 2015 Mar 2;125(3):1269-85.
Candido JB, et al. CSF1R+ Macrophages Sustain Pancreatic Tumor Growth through T Cell Suppression and Maintenance of Key Gene Programs that Define the Squamous Subtype. Cell Rep. 2018 May 1;23(5):1448-1460.