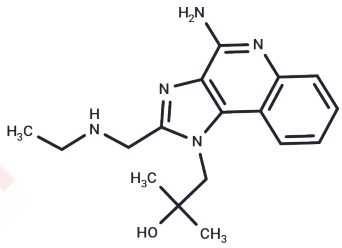
Data Sheet (Cat.No.T15371)

TargetMol

Gardiquimod

Chemical Properties



CAS No. : 1020412-43-4

Formula: C17H23N5O

Molecular Weight: 313.4

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	Gardiquimod could inhibit HIV-1 infection of macrophages and activated peripheral blood mononuclear cells. Gardiquimod is an imidazoquinoline analog and is a TLR7/8 agonist. When used at concentrations below 10μM, Gardiquimod specifically activates TLR7.
Targets(IC50)	HIV Protease,TLR
In vitro	Administration of 6-60?μM Gardiquimod obviously inhibits HIV-1 reverse transcriptase cDNA synthesis[1].
In vivo	Gardiquimod (1 mg/kg per mouse; i.p.; daily for 7 days) in combination with Dendritic cells (DCs) enhance the anti-tumor effects of NK cells[2].

Solubility Information

Solubility	DMSO: 45.4 mg/mL (144.86 mM),Sonication is recommended. DMF: 18 mg/mL (57.43 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: 2 mg/mL (6.38 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	3.1908 mL	15.9541 mL	31.9081 mL
5 mM	0.6382 mL	3.1908 mL	6.3816 mL
10 mM	0.3191 mL	1.5954 mL	3.1908 mL
50 mM	0.0638 mL	0.3191 mL	0.6382 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

Buitendijk M, et al. Gardiquimod: a Toll-like receptor-7 agonist that inhibits HIV type 1 infection of human macrophages and activated T cells. AIDS Res Hum Retroviruses. 2013 Jun;29(6):907-18.
Zhou Z, et al. TLR7/8 agonists promote NK-DC cross-talk to enhance NK cell anti-tumor effects in hepatocellular carcinoma. Cancer Lett. 2015 Dec 28;369(2):298-306.