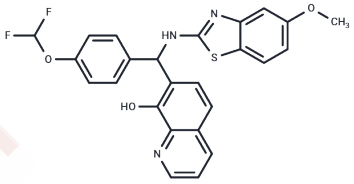
Data Sheet (Cat.No.T15662)

TargetMol

KIN1408

Chemical Properties



CAS No. :	1903800-11-2
Formula:	C25H19F2N3O3S
Molecular Weight:	479.5
Appearance:	no data available
Storage:	store at low temperature,keep away from direct sunlight Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	KIN1408 is an antiviral small molecule compound that is an agonist of the RIG-1-like receptor (RLR) pathway and is able to drive the activation of IRF3 (Interferon Regulatory Factor 3) to induce the expression of innate immunity genes (e.g., MDA5, RIG-1, Mx1, IRF7, and IFIT1), and to promote the nuclear translocation of IRF3 by targeting MAVS (Mitochondrial Antiviral Signaling Protein) or its upstream IRF3 nuclear translocation by targeting MAVS (mitochondrial antiviral signaling protein) or its upstream factors. KIN1400 is the parent, and KIN1409 is a derivative.
Targets(IC50)	Antiviral
In vitro	KIN1408 exhibits activity against HCV, influenza A, Ebola, Nipah, and Lassa viruses. KIN1408 also has the ability to drive IRF3 activation to induce the expression of innate immune genes (MDA5, RIG-1, Mx1, IRF7, and IFIT1 in THP-1 cells) and simultaneously inhibit dengue virus 2 RNA levels. [1-2]
In vivo	**Methods**: MOLP-8 tumor model mice were treated with AZD-5991 (10-100 mg/kg, intravenous injection) and the efficacy of AZD-5991 on MOLP-8 tumor growth in vivo was evaluated. **Results**: AZD-5991 produced dose-dependent antitumor effects ranging from tumor growth inhibition (TGI) to tumor regression (TR). After ten days of treatment, AZD-5991 showed a TGI of 52% and 93% at 10 and 30 mg/kg, respectively ($p < 0.0001$). [1]

Solubility Information

Solubility	DMSO: 30 mg/mL (62.57 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0855 mL	10.4275 mL	20.8551 mL
5 mM	0.4171 mL	2.0855 mL	4.171 mL
10 mM	0.2086 mL	1.0428 mL	2.0855 mL
50 mM	0.0417 mL	0.2086 mL	0.4171 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.

Reference

Green RR, et al. Transcriptional analysis of antiviral small molecule therapeutics as agonists of the RLR pathway. Genom Data. 2016 Feb 1;7:290-2.
Sowmya Pattabhi, et al. Targeting Innate Immunity for Antiviral Therapy through Small Molecule Agonists of the RLR Pathway. J Virol. 2015 Dec 16;90(5):2372-87.