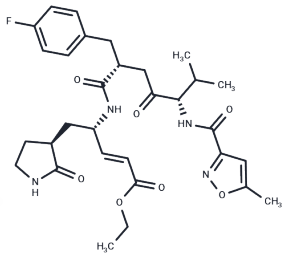
Data Sheet (Cat.No.T16809)

TargetMol

Rupintrivir

Chemical Properties



CAS No. : 223537-30-2

Formula: C31H39FN4O7

Molecular Weight: 598.66

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	Rupintrivirvr (AG7088) is a selective rhinovirus (HRV) 3C cysteine protease mimetic peptide inhibitor with antiviral and immunomodulatory activities.Rupintrivirvr inhibits the replication of EV71 and EV-D68, and may be useful for the study of viral infections.
Targets(IC50)	Antiviral,Virus Protease
In vitro	In H1-HeLa and MRC-5 cell protection assays, Rupintrivir (AG7088) inhibited the replication of all HRV serotypes (48 of 48) tested with a mean 50% effective concentration (EC50) of 0.023 microM (range, 0.003 to 0.081 microM) and a mean EC90 of 0.082 microM (range, 0.018 to 0.261 microM) as well as that of related picornaviruses including coxsackieviruses A21 and B3, enterovirus 70, and echovirus 11[1].
In vivo	PCLS from HDM-sensitized mice showed an attenuated antiviral response, but exaggerated IL-4, IL-6, and IL-10 secretion upon infection. Rupintrivir(AG7088) inhibited exaggerated pro-inflammatory cytokine IL-6 and TH-2 cytokine IL-4 in HDM-sensitized mice[2].

Solubility Information

Solubility	DMSO: 252.5 mg/mL (421.78 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (3.34 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	1.6704 mL	8.352 mL	16.704 mL
5 mM	0.3341 mL	1.6704 mL	3.3408 mL
10 mM	0.167 mL	0.8352 mL	1.6704 mL
50 mM	0.0334 mL	0.167 mL	0.3341 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

Patick AK, et al. In vitro antiviral activity of AG7088, a potent inhibitor of human rhinovirus 3C protease. Antimicrob Agents Chemother. 1999 Oct;43(10):2444-50.
Danov O, et al. Rupintrivir reduces RV-induced TH-2 cytokine IL-4 in precision-cut lung slices (PCLS) of HDM-sensitized mice ex vivo. Respir Res. 2019 Oct 22;20(1):228.
Dragovich PS, et al. Structure-based design, synthesis, and biological evaluation of irreversible human rhinovirus 3C protease inhibitors. Structure-activity studies of ketomethylene-containing peptidomimetics. J Med Chem. 1999 Apr 8;42(7):1203-12.

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