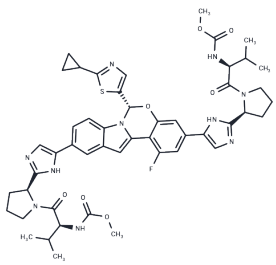
Data Sheet (Cat.No.T68015)

TargetMol

Ruzasvir

Chemical Properties



CAS No. : 1613081-64-3

Formula: C49H55FN10O7S

Molecular Weight: 947.09

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	Ruzasvir (MK-8408) is a novel and potent pan-genotypic inhibitor of hepatitis C virus NS5A with antiviral activity.
Targets(IC50)	HCV Protease
In vitro	Ruzasvir (MK-8408) was developed as a novel NS5A inhibitor to improve upon the potency and barrier to resistance of early compounds. Ruzasvir inhibited HCV RNA replication with 50% effective concentrations (EC50s) of 1 to 4 pM in Huh7 or Huh7.5 cells bearing replicons for HCV genotype 1 (GT1) to GT7. The antiviral activity was modestly (10-fold) reduced in the presence of 40% normal human serum. The interaction of Ruzasvir with an NS3/4A protease inhibitor (grazoprevir) and an NS5B polymerase prodrug (uprifosbuvir) was additive to synergistic, with no evidence of antagonism or cytotoxicity.[1]

Solubility Information

Solubility	DMSO: 150 mg/mL (158.38 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (10.56 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (10.56 mM),Suspension. *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	1.0559 mL	5.2793 mL	10.5587 mL
5 mM	0.2112 mL	1.0559 mL	2.1117 mL
10 mM	0.1056 mL	0.5279 mL	1.0559 mL
50 mM	0.0211 mL	0.1056 mL	0.2112 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

Asante-Appiah E, et al. In Vitro Antiviral Profile of Ruzasvir, a Potent and Pangenotype Inhibitor of Hepatitis C Virus NS5A. Antimicrob Agents Chemother. 2018 Oct 24;62(11):e01280-18.
Wyles D, et al. C-CREST Part C and C-SURGE Investigators. Grazoprevir, ruzasvir, and uprifosbuvir for hepatitis C virus after NS5A treatment failure. Hepatology. 2017 Dec;66(6):1794-1804.