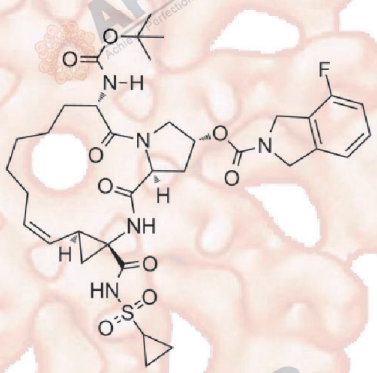
Product Data Sheet

Danoprevir (RG7227)



Cat. No.:	A4024
CAS No.:	850876-88-9
Formula:	C35H46FN5O9S
M.Wt:	731.83
Synonyms:	Danoprevir,RG7227,ITMN-191
Target:	Proteases
Pathway:	HCV Protease
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

⩾32.6 mg/mL in DMSO; insoluble in H2O; ⩾46.4 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	1.3664 mL	6.8322 mL	13.6644 mL
5 mM	0.2733 mL	1.3664 mL	2.7329 mL
10 mM	0.1366 mL	0.6832 mL	1.3664 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	HCV NS3/4A protease inhibitor
IC_{50} & Target	0.2-3.5 nM (HCV NS3/4A protease)

In Vitro

Cell Viability Assay

Cell Line:	Huh7 cells harboring HCV replicon
Preparation method:	The solubility of this compound in DMSO is >32.6mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	antiviral assays: 100 nM to 5 pMcytotoxicity assays: 1 mM to 5.6 nM

	Applications:	ITMN-191 displayed a high degree of specificity for its intended target. In replicon-bearing cells, ITMN-191 (3.7 nM-15 nM) promoted a 3.7 log10 reduction in replicon levels upon 14 days of in vitro treatment but did not clear HCV replicon from every cell. Treatment with ITMN-191 (45 nM) reduced HCV replicon RNA levels and completely cleared replicon RNA.
In Vivo	**Animal experiment**	
	Animal models:	Rats and monkeys
	Dosage form:	Oral gavage, 30 mg/kg
	Applications:	Danoprevir (30 mg/kg) administered to rats or monkeys shows that its concentrations in liver 12 hours after dosing exceed the Danoprevir concentration required to eliminate replicon RNA from cells.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Seiwert S D, Andrews S W, Jiang Y, et al. Preclinical characteristics of the hepatitis C virus NS3/4A protease inhibitor ITMN-191 (R7227)[J]. Antimicrobial agents and chemotherapy, 2008, 52(12): 4432-4441.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com