

Danoprevir

Catalog No: tcsc0337



Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

850876-88-9

Formula:

$C_{35}H_{46}FN_5O_9S$

Pathway:

Metabolic Enzyme/Protease;Anti-infection

Target:

HCV Protease;HCV

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

ITMN-191;R7227;RO5190591;RG7227

Observed Molecular Weight:

731.83

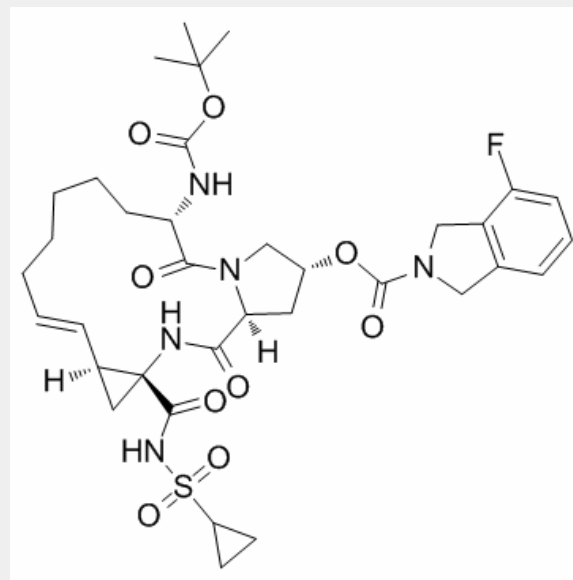
Product Description

Danoprevir is a peptidomimetic inhibitor of the **NS3/4A protease** of **hepatitis C virus (HCV)** with **IC₅₀** of 0.2-3.5 nM. The inhibition effect on HCV genotypes 1A/1B/4/5/6 is approx 10-fold higher than 2B/3A.

IC50 & Target: IC50: 0.2-3.5 nM (NS3/4A protease)

In Vitro: In Huh7.5 cells transfected with chimeric recombinant virus, Danoprevir shows antiviral inhibition effects against HCV genotypes 1, 4 and 6 with IC₅₀ of 2-3 nM, which are >100-fold lower than genotypes 2/3/5 (280-750 nM)^[1]. Danoprevir (0.29 nM) inhibits the reference genotype 1 NS3/4A protease half-maximally, but a high dose of Danoprevir (10 μM) shows no appreciable inhibition in a panel of 79 proteases, ion channels, transporters, and cell surface receptors. Danoprevir remains bound to and inhibits NS3/4A for more than 5 hours after its initial association. Danoprevir (45 nM) eliminates a patient-derived HCV genotype 1b replicon from hepatocyte-derived Huh7 cells with an EC₅₀ of 1.8 nM^[2]. In HCV subgenomic replicon cell lines containing the individual mutations, V36M, R109K, and V170A substitutions confer little or no resistance to Danoprevir, but the R155K substitution confers a high level (62-fold increase) of resistance to Danoprevir^[3].

In Vivo: Danoprevir (30 mg/kg, p.o.) 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^[2].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!