

# 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

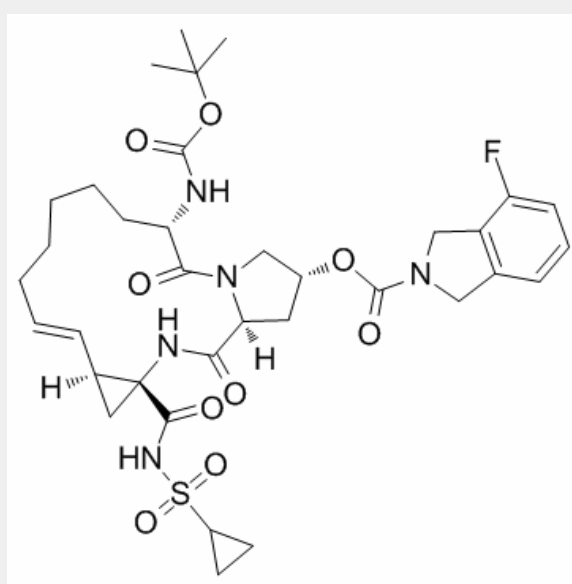
## Product Description

Danoprevir is a peptidomimetic inhibitor of the **NS3/4A protease** of **hepatitis C virus (HCV)** with **IC<sub>50</sub>** of 0.2-3.5 nM. The inhibition effect on HCV genotypes 1A/1B/4/5/6 is appr 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 IC<sub>50</sub> of 2-3 nM, which are >100-fold lower than genotypes 2/3/5 (280-750 nM)<sup>[1]</sup>. 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 EC<sub>50</sub> of 1.8 nM<sup>[2]</sup>. 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<sup>[3]</sup>.

**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<sup>[2]</sup>.



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