

## 15-4004: Danoprevir

**Alternative Name :** ITMN-191, R-7227

### Description

**Molecular Formula:** C<sub>35</sub>H<sub>46</sub>FN<sub>5</sub>O<sub>9</sub>S

**Molecular Weight:** 731.8

Danoprevir is an orally bioavailable inhibitor of hepatitis C virus (HCV) nonstructural protein 3/4A (NS3/4A; IC<sub>50</sub> = 1 nM), a serine protease essential for HCV replication. It is selective for NS3/4A over a panel of 53 proteases at a concentration of 10 μM. Danoprevir inhibits replication of the HCV genotypes 1a, 1b, 4, 5, and 6 (IC<sub>50</sub>s = 0.2-0.4 nM) as well as 2b and 3a (IC<sub>50</sub>s = 1.6 and 3.5 nM, respectively) in vitro. It also reduces the number of HCV genotype 1b replicons in Huh-7 cells (EC<sub>50</sub> = 1.8 nM).

### Product Info

<b>Amount :</b>	1 mg / 5 mg
<b>Purification :</b>	≥95%
<b>Content :</b>	Danoprevir is supplied as a crystalline solid.
<b>Storage condition :</b>	Store at -20°C, product is stable for at least two years.

### Application Note

A stock solution may be made by dissolving the danoprevir in the solvent of choice. Danoprevir is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of danoprevir in these solvents is approximately 15, 25, and 30 mg/ml, respectively.

Danoprevir is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, danoprevir should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Danoprevir has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

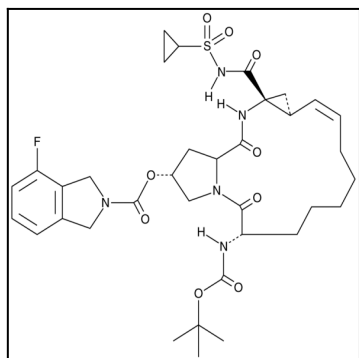


Figure-1: Structure of Danoprevir.