Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Asunaprevir

Catalog No: tcsc0674

Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
630420-16-5

Formula:
$C_{35}H_{46}ClN_5O_9S$

Pathway:
Metabolic Enzyme/Protease;Anti-infection

Target:
HCV Protease;HCV

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 42.9 mg/mL (57.33 mM)

Alternative Names:
BMS-650032

Observed Molecular Weight:
748.29

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Product Description

Asunaprevir is a potent **hepatitis C virus (HCV) NS3 protease** inhibitor, with **IC_{50}** of 0.2 nM-3.5 nM.

IC50 & Target: IC50: 0.2 nM-3.5 nM (HCV NS3 protease)

In Vitro: In multiple experiments, populations of resistant colonies are markedly reduced when cells are treated with a combination of DCV and Asunaprevir[1]. Asunaprevir (ASV) inhibits the NS3 proteolytic activity of genotype 1a (H77 strain) and genotype 1b (J4L6S strain), with IC_{50}s of 0.7 and 0.3 nM, respectively. The EC_{50}s of ASV against replicons encoding the NS3 protease domains representing genotypes 1a, 1b, and 4a, range from 1.2 to 4.0 nM[2]. Replicon cells are maintained under selective pressure with asunaprevir at concentrations of 10 and 30 times the EC_{50} values (50 or 150 nM final concentrations, respectively). For genotype 1b resistance selection, replicon cells are maintained in the presence of asunaprevir at 10 or 30 times the EC_{50} values (30 or 90 nM final concentrations, respectively)[3]. Asunaprevir, administered at single or multiple doses of 200 to 600 mg twice daily, is generally well tolerated, achieving rapid and substantial decreases in HCV RNA levels in subjects chronically infected with genotype 1 HCV[4].

In Vivo: Asunaprevir (ASV, 3-15 mg/kg, p.o.) displays a hepatotropic disposition (liver-to-plasma ratios ranging from 40- to 359-fold across species) in several animal species. Twenty-four hours postdose, liver exposures across all species tested are ≥110-fold above the inhibitor EC_{50} observed with HCV genotype-1 replicons[2].