

# Nesbuvir

**Catalog No: tcsc0689**



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

691852-58-1

**Formula:**

$C_{22}H_{23}FN_2O_5S$

**Pathway:**

Anti-infection

**Target:**

HCV

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 50$  mg/mL (111.98 mM)

**Alternative Names:**

HCV-796

**Observed Molecular Weight:**

446.49

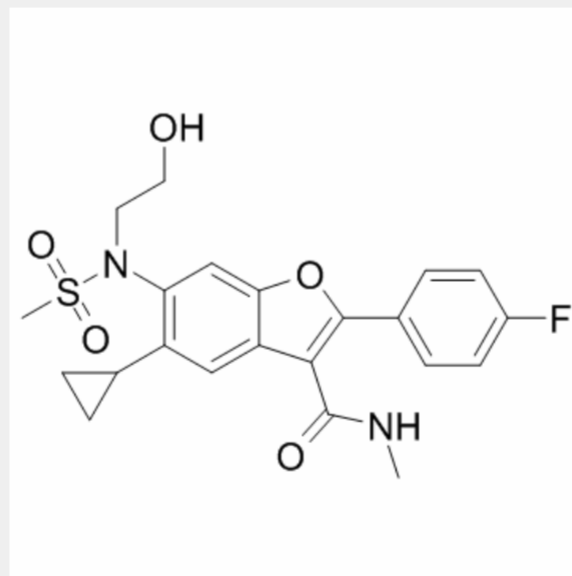
## Product Description

Nesbuvir is a nonnucleoside inhibitor of the hepatitis C virus (HCV) nonstructural protein 5B (NS5B) polymerase.

IC50 & Target: EC50: 9 nM (NS3<sup>V170A</sup>), 13 nM (NS3<sup>V170A</sup>), 15 nM (NS3<sup>K583T</sup>), 13 nM (NS5B<sup>I424V</sup>)<sup>[1]</sup>

**In Vitro:** Replicon cells are treated with 1 mg/mL G418 and combinations of the two compounds. Nesbuvir (HCV-796) is added to 40 or 80 nM (approximately 10 and 20 times the EC<sub>50</sub> in a 3-day replicon inhibition assay, respectively) and Boceprevir is added to 400 or 800 nM (approximately 2 and 4 times the EC<sub>50</sub>, respectively). The EC<sub>50</sub>s for Nesbuvir and Boceprevir for the parental replicon in the transient expression assay are comparable to those obtained in the 3-day inhibition assay with the stable replicon cells; the EC<sub>50</sub> for Nesbuvir in the transient expression assay is 14 nM, whereas it is 5 nM for the stable replicon; and the EC<sub>50</sub> for Boceprevir in the transient expression assay is 608 nM, whereas it is 201 nM for the stable replicon<sup>[1]</sup>.

**In Vivo:** Among a huge variety of yet characterized nucleoside and non-nucleoside inhibitors (NNI), the benzofurane derivative NNI Nesbuvir (HCV-796) is demonstrated to yield significant antiviral effects in mice with chimeric human livers and in patients infected with HCV. HCV-796 binds to a hydrophobic binding pocket at the “palm” domain of NS5B; however, its mode of inhibition remains to be defined<sup>[2]</sup>.



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