

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 : ≥ 50 mg/mL (111.98 mM)

Alternative Names:

HCV-796

Observed Molecular Weight:

446.49

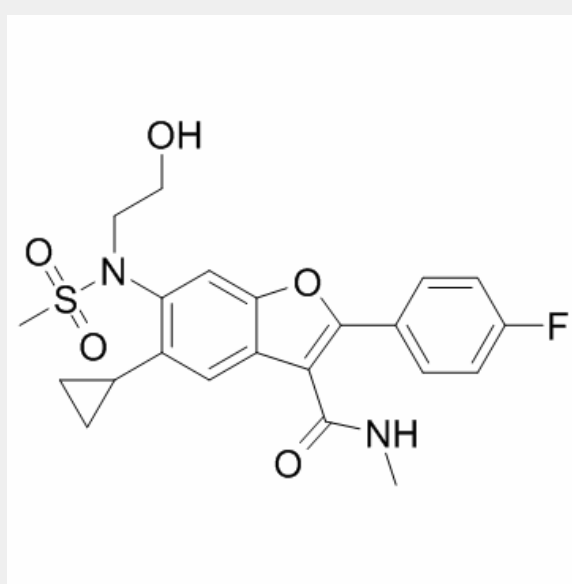
Product Description

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

IC50 & Target: EC50: 9 nM (NS3^{V170A}), 13 nM (NS3^{V170A}), 15 nM (NS3^{K583T}), 13 nM (NS5B^{I424V})^[1]

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 EC₅₀ in a 3-day replicon inhibition assay, respectively) and Boceprevir is added to 400 or 800 nM (approximately 2 and 4 times the EC₅₀, respectively). The EC₅₀s 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 EC₅₀ for Nesbuvir in the transient expression assay is 14 nM, whereas it is 5 nM for the stable replicon; and the EC₅₀ for Boceprevir in the transient expression assay is 608 nM, whereas it is 201 nM for the stable replicon^[1].

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^[2].



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