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

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

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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 EC_{50} in a 3-day replicon inhibition assay, respectively) and Boceprevir is added to 400 or 800 nM (approximately 2 and 4 times the EC_{50}, respectively). The EC_{50}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_{50} for Nesbuvir in the transient expression assay is 14 nM, whereas it is 5 nM for the stable replicon; and the EC_{50} 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].