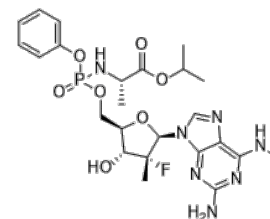


Product Name : Bemnifosbuvir
Cat. No. : PC-22912
CAS No. : 1998705-64-8
Molecular Formula : C₂₄H₃₃FN₇O₇P
Molecular Weight : 581.54
Target : HCV
Solubility : 10 mM in DMSO



Biological Activity

Bemnifosbuvir (AT-527, RG-6422) is a novel phosphoramidate prodrug of AT-511 that has potent in vitro activity against HCV (EC₅₀=5-28 nM), also inhibits replication of SARS-CoV-2 with EC₉₀ of 0.47 μM.

AT-527 shows similar potency against human coronavirus (HCoV)-229E, HCoV-OC43, and SARS-CoV in Huh-7 cells, with little to no cytotoxicity was observed for AT-511 at concentrations up to 100 μM.

Once in cells, AT-527 is converted into its triphosphate form, AT-9010, that presumably targets the viral RNA-dependent RNA polymerase (RdRp, nsp12), for incorporation into viral RNA.

AT-9010 outcompetes all native nucleotides for NiRAN binding, inhibiting its nucleotidyltransferase activity.

References

Good SS, et al. *Antimicrob Agents Chemother.* 2021 Mar 18;65(4):e02479-20.

Do TND, et al. *Antiviral Res.* 2021 Aug;192:105122.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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