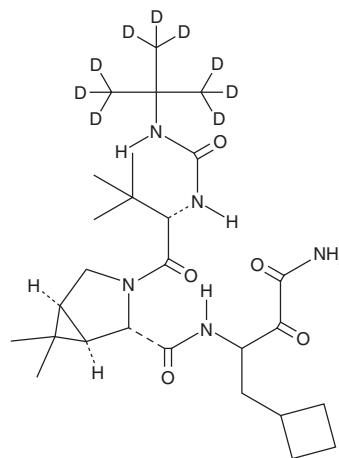


PRODUCT INFORMATION



Boceprevir-d₉ Item No. 31461

CAS Registry No.: 1256751-11-7
Formal Name: (1R,2S,5S)-N-[3-amino-1-(cyclobutylmethyl)-2,3-dioxopropyl]-3-[[[(2S)-2-[[[1,1-di(methyl-d₃)ethyl-2,2,2-d₃]amino]carbonyl]amino]-3,3-dimethyl-1-oxobutyl]-6,6-dimethyl-3-azabicyclo[3.1.0]hexane-2-carboxamide
MF: C₂₇H₃₆D₉N₅O₅
FW: 528.7
Chemical Purity: ≥95% (Boceprevir)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Boceprevir-d₉ is intended for use as an internal standard for the quantification of boceprevir (Item No. 18379) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Boceprevir-d₉ is supplied as a solid. A stock solution may be made by dissolving the boceprevir-d₉ in the solvent of choice, which should be purged with an inert gas. Boceprevir-d₉ is soluble in organic solvents such as DMSO and methanol.

Description

Boceprevir is an inhibitor of hepatitis C virus (HCV) non-structural protease 3/4A (NS3/4A; K_i = 14 nM for the HCV genotype 1b enzyme).¹ Boceprevir inhibits HCV replication in Huh7 cells (EC₅₀ = 200 nM).² It also inhibits severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) main protease (M^{pro}; K_i = 1.8 μM) and reduces cytopathic effects of SARS-CoV-2 in Vero cells (EC₅₀ = 1.31 μM).³ Formulations containing boceprevir have been used in the treatment of HCV.

References

1. Malcolm, B.A., Liu, R., Lahser, F., *et al.* SCH 503034, a mechanism-based inhibitor of hepatitis C virus NS3 protease, suppresses polyprotein maturation and enhances the antiviral activity of alpha interferon in replicon cells. *Antimicrob. Agents Chemother.* **50**(3), 1013-1020 (2006).
2. Maren, T.H. Carbonic anhydrase: Chemistry, physiology, and inhibition. *Physiol. Rev.* **47**(4), 595-781 (1967).
3. Ma, C., Sacco, M.D., Hurst, B., *et al.* Boceprevir, GC-376, and calpain inhibitors II, XII inhibit SARS-CoV-2 viral replication by targeting the viral main protease. *Cell Res.* **30**(8), 678-692 (2020).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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