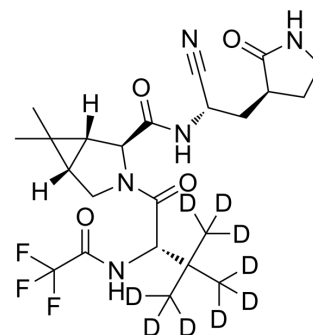


Nirmatrelvir-d9

Cat. No.:	HY-138687S
CAS No.:	2861202-76-6
Molecular Formula:	C ₂₃ H ₂₃ D ₉ F ₃ N ₅ O ₄
Molecular Weight:	508.58
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Nirmatrelvir-d9 (PF-07321332-d9) is the deuterium labeled Nirmatrelvir (HY-138687) ^[1] .
In Vitro	<p>Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].</p> <p>3CL^{PRO} is responsible for cleaving polyproteins 1a and 1ab of SARS-CoV-2.1. Without the activity of the SARS-CoV-2 3CL^{PRO}, nonstructural proteins (including proteases) cannot be released to perform their functions, inhibiting viral replication^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-223.

Caution: Product has not been fully validated for medical applications. For research use only.

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