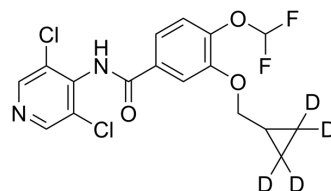


Roflumilast-d₄

Cat. No.:	HY-15455S
CAS No.:	1398065-69-4
Molecular Formula:	C ₁₇ H ₁₀ D ₄ Cl ₂ F ₂ N ₂ O ₃
Molecular Weight:	407.23
Target:	Phosphodiesterase (PDE); RSV; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Roflumilast-d ₄ is the deuterium labeled Roflumilast. Roflumilast is a selective PDE4 inhibitor with IC ₅₀ s of 0.7, 0.9, 0.7, and 0.2 nM for PDE4A1, PDEA4, PDEB1, and PDEB2, respectively, without affecting PDE1, PDE2, PDE3 or PDE5 isoenzymes from various cells[1][2].
In Vitro	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] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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- [4]. Hatzelmann A, et al. Anti-inflammatory and immunomodulatory potential of the novel PDE4 inhibitor roflumilast in vitro. *J Pharmacol Exp Ther*. 2001 Apr;297(1):267-79.
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Caution: Product has not been fully validated for medical applications. For research use only.

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