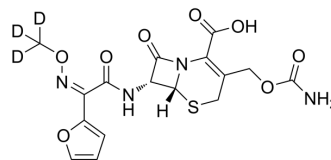


Cefuroxime-d₃

Cat. No.:	HY-B1256S
CAS No.:	1803240-98-3
Molecular Formula:	C ₁₆ H ₁₃ D ₃ N ₄ O ₈ S
Molecular Weight:	427.4
Target:	Bacterial; Antibiotic; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cefuroxime-d ₃ is deuterium labeled Cefuroxime (sodium). Cefuroxime sodium is an orally active second-generation cephalosporin antibiotic with increased stability to β-lactamase. Cefuroxime sodium has a broad spectrum activity against Gram-positive and Gram-negative bacteria[1].
IC₅₀ & Target	β-lactam
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

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Callaghan, et al. Cefuroxime sodium, a New Cephalosporin Antibiotic: Activity in Vitro. *Antimicrob Agents Chemother.* 1976 Mar;9(3):511-9.
- [3]. D M Ryan, et al. Cefuroxime sodium, a New Cephalosporin Antibiotic: Activity in Vivo. *Antimicrob Agents Chemother.* 1976 Mar;9(3):520-5.

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

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