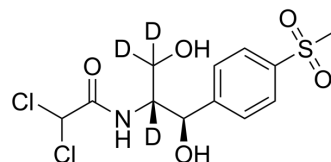


Thiamphenicol-d3-1

Cat. No.:	HY-B0479S1
CAS No.:	1217723-41-5
Molecular Formula:	C ₁₂ H ₁₂ D ₃ Cl ₂ NO ₅ S
Molecular Weight:	359.24
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Thiamphenicol-d ₃ -1 (Thiophenicol-d ₃ -1; Dextrosulphenidol-d ₃ -1) is the deuterium-labeled Thiamphenicol (HY-B0479) ^[1] . Thiamphenicol (Thiophenicol), a methyl-sulfonyl derivative of Chloramphenicol, is a broad-spectrum antimicrobial antibiotic. Thiamphenicol acts by binding to the 50S ribosomal subunit, leading to inhibition of protein synthesis and bacteriostatic effect (against Gram-negative, Gram-positive aerobic and anaerobic bacteria) ^{[2][3]} .
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 Feb;53(2):211-216.

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

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