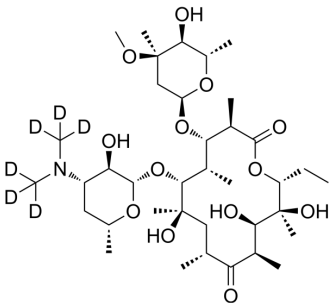
Erythromycin-d6

Cat. No.:	HY-B0220S
CAS No.:	959119-25-6
Molecular Formula:	$C_{37}H_{61}D_6NO_{13}$
Molecular Weight:	739.96
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Erythromycin-d_6 is the deuterium labeled Erythromycin. Erythromycin is a macrolide antibiotic produced by actinomycete Streptomyces erythreus with a broad spectrum of antimicrobial activity. Erythromycin acts by binding to bacterial 50S ribosomal subunits and inhibits RNA-dependent protein synthesis by blockage of transpeptidation and/or translocation reactions, without affecting synthesis of nucleic acid[1].
IC_{50} & Target	Macrolide
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]. Gribble MJ, et al. Erythromycin. Med Clin North Am. 1982 Jan;66(1):79-89.

[3]. Nakornchai S, et al. Activity of azithromycin or erythromycin in combination with antimalarial drugs against multidrug-resistant Plasmodium falciparum in vitro. Acta Trop. 2006 Dec;100(3):185-91. Epub 2006 Nov 28.

[4]. K Hamada, et al. Antitumor Effect of Erythromycin in Mice. Chemotherapy

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