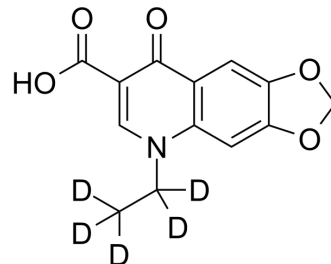


Oxolinic acid-d₅

Cat. No.:	HY-B1002S		
CAS No.:	1189890-98-9		
Molecular Formula:	C ₁₃ H ₆ D ₅ NO ₅		
Molecular Weight:	266.26		
Target:	Bacterial; DNA/RNA Synthesis; Antibiotic		
Pathway:	Anti-infection; Cell Cycle/DNA Damage		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Oxolinic acid-d ₅ is the deuterium labeled Oxolinic acid. Oxolinic acid is an antibiotic against both Gram-negative and Gram-positive bacteria. Oxolinic acid can be used for the research of acute and chronic urinary tract infections. Oxolinic acid is a DNA/RNA synthesis inhibitor. Oxolinic acid acts a dopamine uptake inhibitor and stimulants locomotor effect in mice[1][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;53(2):211-216.
- [2]. M J Kershaw, et al. The antibacterial and pharmacological activity of oxolinic acid (Prodoxol). *J Antimicrob Chemother.* 1975 Sep;1(3):311-5.
- [3]. S H Manes, et al. Inhibition of RNA synthesis by oxolinic acid is unrelated to average DNA supercoiling. *J Bacteriol.* 1983 Jul; 155(1): 420-423.
- [4]. J Garcia de Mateos-Verchere, et al. Behavioural and neurochemical evidence that the antimicrobial agent oxolinic acid is a dopamine uptake inhibitor. *Eur Neuropsychopharmacol.* 1998 Dec;8(4):255-9.

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

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