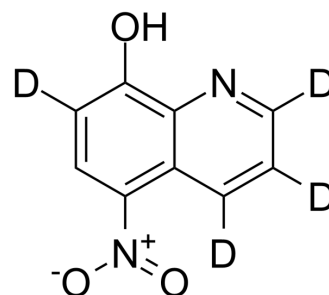


Nitroxoline-D4

Cat. No.:	HY-B1159S
Molecular Formula:	C ₉ H ₂ D ₄ N ₂ O ₃
Molecular Weight:	194.18
Target:	Bacterial; Autophagy; Antibiotic
Pathway:	Anti-infection; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Nitroxoline-D4 (8-Hydroxy-5-nitroquinoline-D4) is the deuterium labeled Nitroxoline. Nitroxoline is an antibiotic that has proven to be very effective at combating biofilm infections. Nitroxoline functions by chelating Fe ²⁺ and Zn ²⁺ ions from the biofilm matrix ^{[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

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Abouelhassan Y, et al. Nitroxoline: a broad-spectrum biofilm-eradicating agent against pathogenic bacteria. *Int J Antimicrob Agents.* 2017 Feb;49(2):247-251.

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

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