
Product Data Sheet

Product Name: Nitroxoline-D4

Cat. No.: GC63714

Chemical Properties

Cas. No.

Formula $C_9H_2D_4N_2O_3$ M.Wt 194.18

Solubility Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

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].

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].

[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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