

Product Data Sheet

Delafloxacin-d₅

Cat. No.: HY-14814S

Molecular Formula: $C_{18}H_7D_5ClF_3N_4O_4$

Molecular Weight: 445.79

Target: Bacterial; Antibiotic; Isotope-Labeled Compounds

Pathway: Anti-infection; Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Delafloxacin- d_5 is deuterium labeled Delafloxacin. Delafloxacin (RX-3341; WQ-3034; ABT492) is a broad-spectrum fluoroquinolone antibiotic. Delafloxacin has a broad spectrum of activity that includes drug-resistant Staphylococcus aureus, Streptococcus pneumoniae, and Klebsiella pneumonia[1].
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]. Lepak AJ, et al. In Vivo Pharmacodynamic Target Assessment of Delafloxacin against Staphylococcus aureus, Streptococcus pneumoniae, and Klebsiella pneumoniae in a Murine Lung Infection Model. Antimicrob Agents Chemother. 2016 Jul 22;60(8):4764-9.

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

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