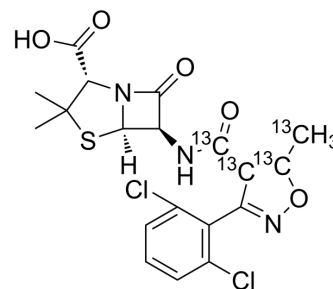


Dicloxacillin-¹³C₄

Cat. No.:	HY-B1459AS
Molecular Formula:	C ₁₅ ¹³ C ₄ H ₁₇ Cl ₂ N ₃ O ₅ S
Molecular Weight:	474.3
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dicloxacillin- ¹³ C ₄ is the ¹³ C labeled Dicloxacillin[1]. Dicloxacillin is a β-lactam antibiotic of the penicillin family. Dicloxacillin against Gram-positive bacteria. Dicloxacillin is active against β-lactamase-producing organisms such as Staphylococcus aureus[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 Feb;53(2):211-216.
- [2]. Miranda-Novales G, et al. In vitro activity effects of combinations of cephalothin, dicloxacillin, imipenem, vancomycin and amikacin against methicillin-resistant Staphylococcus spp. strains. *Ann Clin Microbiol Antimicrob.* 2006 Oct 12;5:25.
- [3]. Anne Sandberg, et al. Intra- and extracellular activities of dicloxacillin against Staphylococcus aureus in vivo and in vitro. *Antimicrob Agents Chemother.* 2010 Jun54(6):2391-400.
- [4]. John Chu, et al. Discovery of MRSA active antibiotics using primary sequence from the human microbiome. *Nat Chem Biol.* 2016 Dec12(12):1004-1006.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA