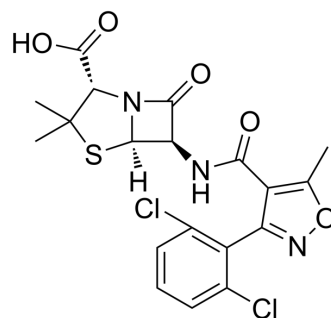


Dicloxacillin

Cat. No.:	HY-B1459A
CAS No.:	3116-76-5
Molecular Formula:	C ₁₉ H ₁₇ Cl ₂ N ₃ O ₅ S
Molecular Weight:	470.33
Target:	Antibiotic; Bacterial; Beta-lactamase
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	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 <i>Staphylococcus aureus</i> ^[1] .	
IC₅₀ & Target	β -lactam	
In Vitro	Dicloxacillin exhibits EC ₅₀ values of 0.06 and 0.50 mg/L in ATCC 25923 and E19977, respectively. Dicloxacillin exhibits MIC values of 0.125 and 0.5 mg/L in ATCC 25923 and E19977 with pH 7.4, respectively ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Dicloxacillin exhibits therapeutic activity in murine peritonitis-sepsis model and all the mice are survived ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female outbred Swiss Webster mice (Murine peritonitis-sepsis model) ^[3] .
	Dosage:	125 mg/kg.
	Administration:	IV injection, single doses.
	Result:	All the mice survived.

CUSTOMER VALIDATION

- Biomed Res Int. 2018 Jul 2;2018:3579832.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. 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.

[2]. Anne Sandberg, et al. Intra- and extracellular activities of dicloxacillin against *Staphylococcus aureus* in vivo and in vitro. *Antimicrob Agents Chemother.* 2010 Jun;54(6):2391-400.

[3]. John Chu, et al. Discovery of MRSA active antibiotics using primary sequence from the human microbiome. *Nat Chem Biol.* 2016 Dec;12(12):1004-1006.

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

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