Dicloxacillin

MedChemExpress

Cat. No.:	HY-B1459A	, ⁰
CAS No.:	3116-76-5	HO
Molecular Formula:	$C_{19}H_{17}Cl_2N_3O_5S$	N-N-
Molecular Weight:	470.33	S
Target:	Antibiotic; Bacterial; Beta-lactamase	H H CI H
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 Staphylococcus aureus ^[1] .				
IC ₅₀ & 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 for 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 survivied ^[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.

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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.

DATION

[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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