Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Azlocillin (sodium salt)

Catalog No: tcsc2753

Available Sizes

Size: 1g

Size: 5g

Specifications

CAS No:
37091-65-9

Formula:
$C_{20}H_{22}N_5NaO_6S$

Pathway:
Anti-infection

Target:
Bacterial

Purity / Grade:
>98%

Solubility:
DMSO : 100 mg/mL (206.84 mM; Need ultrasonic)

Alternative Names:
Sodium azlocillin

Observed Molecular Weight:
483.47

Product Description

Azlocillin is an acylampicillin with a broad spectrum against bacteria.

Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Target: Antibacterial

Azlocillin (12.5 μg/mL) inhibits over 75% of the isolates of Pseudomonas aeruginosa. Azlocillin (12.5 μg/mL) is also active against indole-negative and -positive Proteus spp., inhibiting 98 and 71%, respectively. Azlocillin is more active than mezlocillin, ticarcillin, and carbenicillin and as active as BLP-1654 against isolates of P. aeruginosa [1]. The acyl side chains of Azlocillin have an ureido- (urea) structurehence the name \"ureidopenicillins\" or, more specifically, \"acylureidopenicillins.\" In vitro studies against P. aeruginosa demonstrates that piperacillin has activity that is twice that of azlocillin, 4 times that of mezlocillin and ticarcillin, and about 8 times that of carbenicillin. Azlocillin produces elongated bacterial forms with delayed or no lysis in morphologic studies [2].

Azlocillin has MICs of 12.5 μg/mL on Pseudomonas aeruginosa. Azlocillin (3.125 μg/mL) results in a reduction in the rate of growth but no bactericidal phase on Pseudomonas aeruginosa. Azlocillin decreases an initial lag phase with increasing drug concentration. At the lower concentration of tobramycin (0.5 μg/ml), the combinations with both the high and the low concentrations of Azlocillin are more effective than the individual components on Pseudomonas aeruginosa [3]. Isolates with derepression of AmpC enzyme are one to two doubling dilutions more resistant to azlocillin than are those in which increased efflux or impermeability is inferred. Those with secondary β-lactamases are mostly (12/14 cases) susceptible to ceftazidime at 4 mg/L, but are amongst the most resistant to Azlocillin (MIC ≥128 mg/L in 10/14 cases) [4].