

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

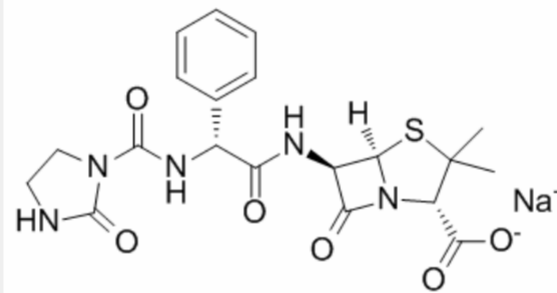
Product Description

Azlocillin is an acylampicillin with a broad spectrum against bacteria.

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) structure hence 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].



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