

PRODUCT INFORMATION



Azlocillin (sodium salt)

Item No. 18424

CAS Registry No.: 37091-65-9
Formal Name: (2S,5R,6R)-3,3-dimethyl-7-oxo-6-[[[(2R)-2-[[[(2-oxo-1-imidazolidinyl)carbonyl]amino]-2-phenylacetyl]amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, monosodium salt

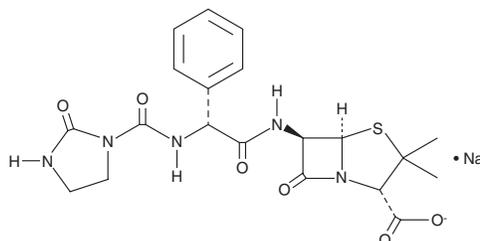
MF: C₂₀H₂₂N₅O₆S • Na
FW: 483.5

Purity: ≥95%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Azlocillin (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the azlocillin (sodium salt) in the solvent of choice. Azlocillin (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of azlocillin (sodium salt) in these solvents is approximately 2, 16, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of azlocillin (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of azlocillin (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Azlocillin is a semisynthetic acylureidopenicillin with broad spectrum antibacterial properties.^{1,2} Like the structurally related antibiotics mezlocillin and piperacillin (Item No. 20766), azlocillin is effective against the *Enterobacteriaceae*, including strains of *K. pneumoniae* that are resistant to older penicillins.³ Azlocillin is part of antibiotic cocktails known as PANTA (with polymyxin B (Item No. 14157)), amphotericin B (Item No. 11636), nalidixic acid (Item No. 19807), and trimethoprim (Item No. 16473) and PANTAV (PANTA with vancomycin (Item No. 15327)).⁴ Azlocillin is also effective against the malarial parasite *P. falciparum* at concentrations similar to those used during antibiotic therapy.⁵

References

1. Stewart, D. and Bodey, G.P. *Antimicrob. Agents Chemother.* **11(5)**, 865-870 (2015).
2. White, G.W., Malow, J.B., Zimelis, V.M., et al. *Antimicrob. Agents Chemother.* **15(4)**, 540-543 (1979).
3. Eliopoulos, G.M. and Moellering, R.C., Jr. *Ann. Intern. Med.* **97(5)**, 755-760 (1982).
4. Radomski, N., Cambau, E., Moulin, L., et al. *Appl. Environ. Microbiol.* **76(11)**, 3514-3520 (2010).
5. Weisman, J.L., Liou, A.P., Shelat, A.A., et al. *Chem. Biol. Drug Des.* **67(6)**, 409-416 (2006).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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