



Product Information

Azlocillin sodium salt

Product Number **A 7926**
Store at Room Temperature

Product Description

Molecular Formula: $C_{20}H_{22}N_5O_6SNa$

Molecular Weight: 483.5

CAS Number: 37091-65-9

Synonyms: D- α -[imidazolidin-2-on-1-yl]carbonylamino)benzylpenicillin sodium salt, [2S-[2 α ,5 α ,6 β (S*)]]-3,3-dimethyl-7-oxo-6-[[[(2-oxo-1-imidazoliny]carbonyl]amino]phenylacetyl]amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid sodium salt, sodium (6R)-6-[D-2-(2-oxoimidazolidine-1-carboxamido)-2-phenylacetamido]penicillanate^{1,2}

Azlocillin is a broad spectrum acylureido penicillin which has comparable antimicrobial action to piperacillin against such species as *Pseudomonas aeruginosa*.^{1,2,3} A review of the development of various penicillin compounds, including azlocillin, has been published.⁴ A time-survival study of the action of azlocillin against the *Pseudomonas aeruginosa* strain NCIMB 8295 has been reported.⁵

The effect of azlocillin and other antibiotics on the endothelial cell viability of porcine aortic valves, via measurement of their *in vitro* prostacyclin production, has been probed.⁶ A screening study of the activities of various antibiotics against *Helicobacter pylori*, including azlocillin, has been described, using concentrations of 0.25 - 2.00 μ g/ml.⁷ The heat stability of several antibiotics, including azlocillin, at 56 °C and 121 °C, has been investigated.⁸ An HPLC assay for azlocillin and other antibiotics from biological fluids has been published.⁹

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in water (50 mg/ml), yielding a clear to hazy, colorless to faint yellow solution.

References

1. The Merck Index, 12th ed., Entry# 947.
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3. Philippon, A., Susceptibility of *Pseudomonas aeruginosa* to β -lactam antibiotics. *Chimioterapia*, **4(6)**, 424-428 (1985).
4. Wright, A. J., The penicillins. *Mayo Clin. Proc.*, **74(3)**, 290-307 (1999) and **74(11)**, 1184 (1999).
5. McFarland, M. M., et al., Time-survival studies for quantifying effects of azlocillin and tobramycin on *Pseudomonas aeruginosa*. *Antimicrob. Agents Chemother.*, **38(6)**, 1271-1276 (1994).
6. Feng, X. J., et al., Effects of different antibiotics on the endothelium of the porcine aortic valve. *J. Heart Valve Dis.*, **2(6)**, 694-704 (1993).
7. Hassan, I. J., et al., Activities of β -lactams and macrolides against *Helicobacter pylori*. *Antimicrob. Agents Chemother.*, **43(6)**, 1387-1392 (1999).
8. Traub, W. H., and Leonhard, B., Heat stability of the antimicrobial activity of sixty-two antibacterial agents. *J. Antimicrob. Chemother.*, **35(1)**, 149-154 (1995).
9. Knoller, J., et al., Application of high-performance liquid chromatography of some antibiotics in clinical microbiology. *J. Chromatogr.*, **427(2)**, 257-267 (1988).

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