

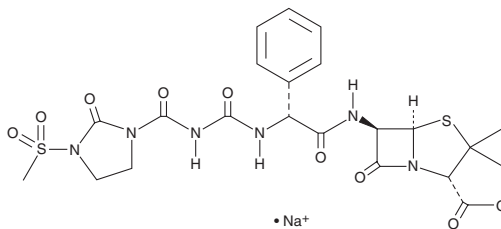
PRODUCT INFORMATION



Mezlocillin (sodium salt)

Item No. 30691

CAS Registry No.: 59798-30-0
Formal Name: [2S-[2 α ,5 α ,6 β (S*)]]-3,3-dimethyl-6-[[[[[[[3-(methylsulfonyl)-2-oxo-1-imidazolidinyl]carbonyl]amino]carbonyl]amino]phenylacetyl]amino]-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, monosodium salt
MF: C₂₂H₂₅N₆O₉S₂ • Na
FW: 604.6
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

Mezlocillin (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the mezlocillin (sodium salt) in the solvent of choice, which should be purged with an inert gas. Mezlocillin (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of mezlocillin (sodium salt) in these solvents is approximately 30 mg/ml.

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 mezlocillin (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of mezlocillin (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

Mezlocillin is a β -lactam antibiotic and derivative of ampicillin (Item No. 14417).^{1,2} It is active against *B. fragilis*, *E. lentum*, *P. morbillorum*, and *F. nucleatum* (MICs = 8, 4, 2, and 4 μ g/ml, respectively).² Mezlocillin (32 μ g/ml) is also active against 10 strains of *S. faecalis*.¹ *In vivo*, mezlocillin (240 mg/kg) increases survival and reduces bacteremia in a rabbit model of *S. faecalis* endocarditis. It completely eliminates lung *P. morbillorum*, *E. lentum*, and *F. nucleatum*, but not *B. fragilis*, in a rabbit model of pulmonary *P. morbillorum*, *E. lentum*, *F. nucleatum*, and *B. fragilis* infection when administered at a dose of 300 mg/kg.² Formulations containing mezlocillin have been used in the treatment of various bacterial infections.

References

1. Fass, R.J. and Wright, C.A. Comparative efficacies of mezlocillin and ampicillin alone or in combination with gentamicin in the treatment of *Streptococcus faecalis* endocarditis in rabbits. *Antimicrob. Agents Chemother.* **25**(4), 408-410 (1983).
2. Chandrasekar, P.H., Rolston, K.V.I., Chokkavelu, C., et al. Comparative efficacy of four antibiotics in anaerobic pulmonary infection. An experimental model in rabbits. *Chemotherapy* **30**(5), 331-336 (1984).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM