

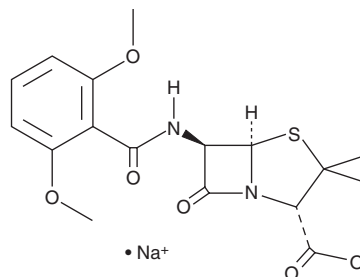
PRODUCT INFORMATION



Methicillin (sodium salt)

Item No. 21007

CAS Registry No.: 132-92-3
Formal Name: (2S,5R,6R)-6-[(2,6-dimethoxybenzoyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, monosodium salt
Synonyms: BRL 1241, SQ 16,123, X 1497
MF: C₁₇H₁₉N₂O₆S • Na
FW: 402.4
Purity: ≥90%
UV/Vis.: 280, 330 nm
Supplied as: A powder
Storage: -20°C
Stability: ≥4 years
Special Conditions: Light sensitive



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

Laboratory Procedures

Methicillin (sodium salt) is supplied as a powder. A stock solution may be made by dissolving the methicillin (sodium salt) in the solvent of choice. Methicillin (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 methicillin (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 methicillin (sodium salt) can be prepared by directly dissolving the powder in aqueous buffers. The solubility of methicillin (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

Methicillin is a semisynthetic penicillin antibiotic that can inhibit bacterial cell wall synthesis.¹ It can be used to study methicillin-resistance in *S. aureus*.²

References

1. Hawks, G.H. Antibiotic therapy of staphylococcal infection. *Can. Med. Assoc. J.* **93(16)**, 848-853 (1965).
2. Kehrenberg, C., Cuny, C., Strommenger, B., et al. Methicillin-resistant and -susceptible *Staphylococcus aureus* strains of clonal lineages ST398 and ST9 from swine carry the multidrug resistance gene cfr. *Antimicrobial Agents and Chemotherapy* **53(2)**, 779-781 (2009).

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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