

PRODUCT INFORMATION



Imipenem (hydrate)

Item No. 16039

CAS Registry No.: 74431-23-5
Formal Name: (5R,6S)-6-[(1R)-1-hydroxyethyl]-3-[[2-[(iminomethyl)amino]ethyl]thio]-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, monohydrate

Synonym: N-Formimidoyl Thienamycin

MF: C₁₂H₁₇N₃O₄S • H₂O

FW: 317.4

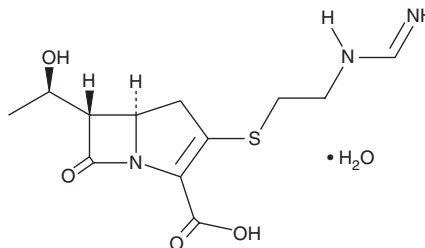
Purity: ≥98%

UV/Vis.: λ_{max}: 290 nm

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

Imipenem (hydrate) is supplied as a crystalline solid. Aqueous solutions of imipenem (hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of imipenem (hydrate) in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Imipenem is an intravenous β-lactam antibiotic effective against a wide range of Gram-positive and Gram-negative bacteria (MICs range from 0.5-2 μg/ml for *E. cloacae* and *P. aeruginosa*), including several multi-drug resistant bacterial species.¹ Imipenem acts by interfering with bacterial cell wall synthesis.^{1,2}

References

1. Jacoby, G.A. AmpC β-lactamases. *Clin. Microbiol. Rev.* **22**(1), 161-182 (2009).
2. Balibar, C.J., Shen, X., McGuire, D., et al. *cwrA*, a gene that specifically responds to cell wall damage in *Staphylococcus aureus*. *Microbiology* **156**, 1372-1383 (2010).

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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