

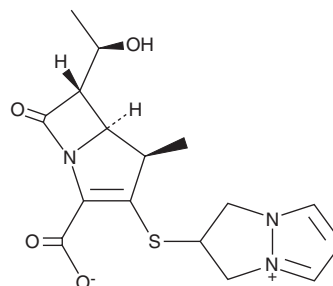
PRODUCT INFORMATION



Biapenem

Item No. 28822

CAS Registry No.: 120410-24-4
Formal Name: 6-[[[(4R,5S,6S)-2-carboxy-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-en-3-yl]thio]-6,7-dihydro-5H-pyrazolo[1,2-a][1,2,4]triazol-4-ium, inner salt
Synonyms: CL 186815, LJC 10,627
MF: C₁₅H₁₈N₄O₄S
FW: 350.4
Purity: ≥95%
UV/Vis.: λ_{max}: 296 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

Biapenem is supplied as a crystalline solid. Aqueous solutions of biapenem can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of biapenem in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Biapenem is a broad-spectrum β-lactam antibiotic.^{1,2} It is active against aerobic and anaerobic, Gram-positive and Gram-negative bacteria, including clinical isolates of *E. coli*, oxacillin-sensitive *S. aureus*, *B. fragilis*, and *Clostridium* (MIC₉₀s = 0.12, 0.12, 0.25, and 1 μg/ml, respectively). It is also active against the rifampicin-susceptible H37Rv and rifampicin-resistant 115R and 124R *M. tuberculosis* strains (MICs = 2-4, 4-8, and 8-16 mg/L, respectively).³ Biapenem (200 mg/kg) decreases the number of lung colony-forming units (CFUs) in a mouse model of late-phase acute H37Rv *M. tuberculosis* infection.

References

1. Hoban, D.J., Jones, R.N., Yamane, N., *et al.* In vitro activity of three carbapenem antibiotics. Comparative studies with biapenem (L-627), imipenem, and meropenem against aerobic pathogens isolated worldwide. *Diagn. Microbiol. Infect. Dis.* **17(4)**, 299-305 (1993).
2. Aldridge, K.E., Morice, N., and Schiro, D.D. In vitro activity of biapenem (L-627), a new carbapenem, against anaerobes. *Antimicrob. Agents Chemother.* **38(4)**, 889-893 (1994).
3. Kaushik, A., Ammerman, N.C., Tasneen, R., *et al.* In vitro and in vivo activity of biapenem against drug-susceptible and rifampicin-resistant *Mycobacterium tuberculosis*. *J. Antimicrob. Chemother.* **72(8)**, 2320-2325 (2017).

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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