



LKT Laboratories, Inc.

Biapenem

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Product Information

Product ID B3203

CAS No. 120410-24-4

Chemical Name (4R,5R,6S)-3-(3,5-diaza-1-azoniabicyclo[3.3.0]octa-1,3-dien-7-ylsulfanyl)-6-(1-hydroxyethyl)-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-

Synonym 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)-s-triazol-4-ium hydroxide, inner salt,
L-627, C₁₅H₁₈N₄O₄S

Formula C₁₅H₁₈N₄O₄S

Formula Wt. 350.39

Melting Point

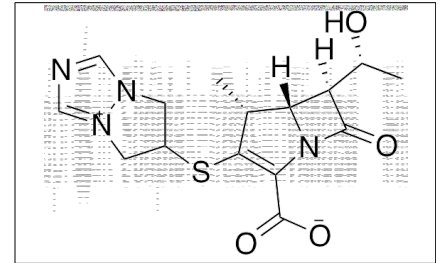
Purity ≥98%

Solubility

Store Temp Ambient

Ship Temp Ambient

Description Biapenem is a carbapenem β-lactam antibiotic. Like other carbapenems, biapenem binds penicillin-binding proteins to inhibit bacterial cell wall synthesis. Biapenem exhibits broad spectrum antibacterial activity and is clinically used to treat respiratory and urinary tract infections. Biapenem displays activity against several species of bacteria, including *Bacteriodes*, *Prevotella*, *Clostridium*, and *Pseudomonas*. In animal models of pneumonia, biapenem decreases bacteria numbers and increases survival rates.



Bulk quantities available upon request

| Product ID | Size |
|------------|--------|
| B3203 | 10 mg |
| B3203 | 25 mg |
| B3203 | 100 mg |

References Wang X, Zhang X, Zong Z, et al. Biapenem versus meropenem in the treatment of bacterial infections: a multicenter, randomized, controlled clinical trial. *Indian J Med Res.* 2013 Dec;138(6):995-1002. PMID: 24521647.

Yamachika S, Sugihara C, Kamai Y, et al. Correlation between penicillin-binding protein 2 mutations and carbapenem resistance in *Escherichia coli*. *J Med Microbiol.* 2013 Mar;62(Pt 3):429-36. PMID: 2322859.

Yamada K, Yamamoto Y, Yanagihara K, et al. In vivo efficacy and pharmacokinetics of biapenem in a murine model of ventilator-associated pneumonia with *Pseudomonas aeruginosa*. *J Infect Chemother.* 2012 Aug;18(4):472-8. PMID: 22215228.

Aldridge KE, Morice N, Schiro DD. In vitro activity of biapenem (L-627), a new carbapenem, against anaerobes. *Antimicrob Agents Chemother.* 1994 Apr;38(4):889-93. PMID: 8031067.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.