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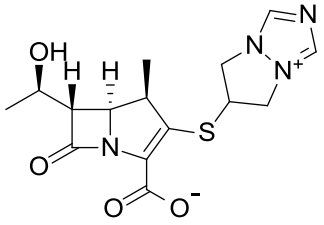
PRODUCT DATA SHEET

Biapenem

Code No.: **BIA-B1663**

Pack sizes: **5 mg, 25 mg**



Synonyms : CL 186815; L 627; LJC 10627; Omegacin

Specifications

CAS #	:	**120410-24-4**
Molecular Formula	:	**$C_{15}H_{18}N_4O_4S$**
Molecular Weight	:	**350.4**
Source	:	**Synthetic**
Appearance	:	**White to yellow solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO.**

Application Notes

Biapenem is semi-synthetic amphoteric carbapenem antibiotic synthesised and commercially developed in the late 1990s by Japanese researchers at Lederle (now Pfizer). Biapenem possesses a broad antibacterial spectrum of action including anaerobes and is stable to most β-lactamases. Biapenem is more stable against hydrolysis by human renal dehydropeptidase-I (DHP-I) than other penems, such as meropenem, imipenem and panipenem. The improved dehydropeptidase activity is attributed to the presence of the 1-β-methyl moiety.

References

1. (1R,5S,6S)-2-[(6,7-dihydro-5H-pyrazolo[1,2-A][1,2,4]triazolium-6-yl]thio-6-[R-1-hydroxyethyl]-1-methyl-carbapenem-3-carboxylate. Kumagai T. et al., US patent 4990613, 1991.
2. In vitro and in vivo activities of LJC10,627, a new carbapenem with stability to dehydropeptidase I. Petersen P.J. et al., Antimicrob. Agents Chemother. 1991, 35, 203.
3. In vitro activity of biapenem (L-627), a new carbapenem, against anaerobes. Aldridge K.E. et al., Antimicrob. Agents Chemother. 1994, 38, 889.
4. In vitro activity of biapenem against recent Gram-negative and Gram-positive clinical isolates. Bonfiglio G. et al., Chemotherapy 1997, 43, 393.

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