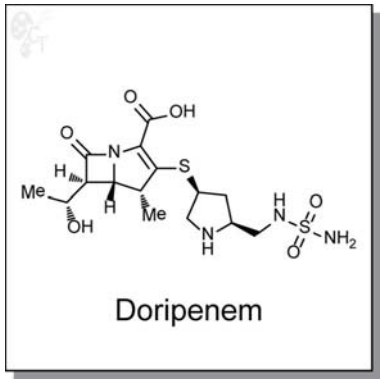
Product Specification Sheet

Product Name: Doripenem

Catalog Number: C3674



Technical information:

Chemical Formula:	$C_{15}H_{24}N_4O_6S_2.H_2O$
CAS #:	148016-81-3
Molecular Weight:	438.52
Purity:	> 99%
Appearance:	White solid
Solubility:	Soluble in DMSO up to 75 mM
Chemical Name:	1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[[(3S,5S)-5-[[(aminosulfonyl)amino]methyl]-3-pyrrolidinyl]thio]-6-[(1R)-1-hydroxyethyl]-4-methyl-7-oxo-, hydrate
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.
Shelf Life:	In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

Handling:

- To make 10 mM stock solution, add 0.228mL of DMSO for each mg of Doripenem
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:

Doripenem is a parenterally-administred antimicrobial of the carbapenem family, with minimum inhibitory concentrations (MIC) of 0.25 ug/mL in Pseudomonas aeruginosa and Escherichia coli. [1] Similar to other b-lactam antibiotics, Doripenem forms stable acyl-enzymes with pencillin-binding proteins, leading to the their inactivation and eventual cell wall rupture.

Doripenem is approved for the treatment of complicated intra-abdominal infections and urinary tract infections. It is active against gram-positive, gram-negative, and anaerobic organisms, and is stable against a wide variety of b-lactamases and renal dehydropeptidases. [2, 3]

Reference:

1. Paterson et al., Doripenem. Clin. Infect. Dis. 2009, 49(2), 291-298. Pubmed ID: 19527173
2. Matthews et al., Doripenem monohydrate, a broad-spectrum carbapenem antibiotic. Clin. Therapeutics, 2009, 31(1), 42-63. Pubmed ID: 19243706
3. Greer et al., Doripenem (Doribax): the newest addition to the carbapenems. Proceedings, Baylor University Medical Center, 2008, 21(3), 337-341. Pubmed ID: 18628935

To reorder: http://www.cellagentech.com/Doripenem/

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.