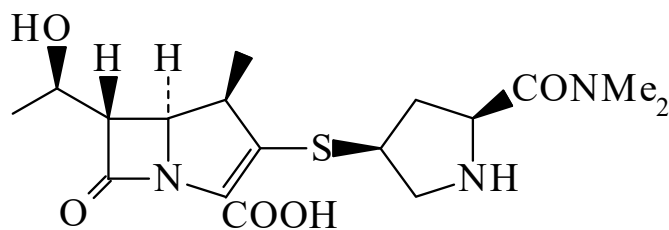




>>Entry Name: Meropenem, BAN, INN

Synonym(s): 3-[[5-[(Dimethylamino)carbonyl]-3-pyrrolidinyl]thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 9Cl. Antibiotic SM 7338. Merrem. ICI 194660. SM 7338



CAS Registry Number: 96036-03-2

Molecular Formula: C₁₇H₂₅N₃O₅S

Molecular Weight: 383.468

Accurate Mass: 383.151492

Percentage Composition: C 53.25%; H 6.57%; N 10.96%; O 20.86%; S 8.36%

Source/Synthesis: Semisynthetic

Use/Importance: Possesses broad spectrum of antibacterial activity

Physical Description: Powder

Development Status: Launched 1994 (Italy)

pKa Value: pK_{a1} 2.9; pK_{a2} 7.4 (NH)

Calculated Log P Data: Log P -3.23 (uncertain value) (calc)

References:

- Eur. Pat.*, 1984, 126 587; *CA*, **102**, 184909, (*synth, pmr*)
Sunagawa, M. *et al.*, *J. Antibiot.*, 1990, **43**, 519
Yanagi, K. *et al.*, *Acta Cryst. C*, 1992, **48**, 1737, (*cryst struct*)
Takeuchi, Y. *et al.*, *J. Antibiot.*, 1993, **46**, 827, (*pmr, cmr, conformn*)
Sunagawa, M. *et al.*, *Chem. Pharm. Bull.*, 1994, **42**, 1381
Berks, A.H., *Tetrahedron*, 1996, **52**, 331-375, (*rev, synth*)
Prashad, A.S. *et al.*, *Tet. Lett.*, 1998, **39**, 7035-7038, (*synth, pmr*)
Drugs, 2000, **59**, 653-680; **60**, 619-646, (*rev*)