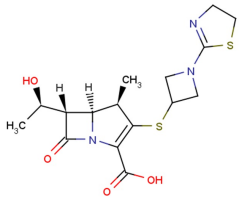
Data Sheet (Cat.No.T17021)

TargetMol
A DRUG SCREENING EXPERT

Tebipenem

Chemical Properties



CAS No.:	161715-21-5
Formula:	C16H21N3O4S2
Molecular Weight:	383.49
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Tebipenem is an orally available carbapenem antibiotic. It displays broad-spectrum activity against Gram-positive and -negative bacteria.
Targets(IC_{50})	Others: None
In vitro	Tebipenem shows potent activity against B. pseudomallei (MIC50 and MIC90: both 2 mg/L). Tebipenem displays slow tight-binding inhibition at low micromolar concentrations versus the chromogenic substrate nitrocefin (apparent Km and kcat: 0.8 μM and 0.03 min-1, respectively). Tebipenem shows good activity against S. pneumoniae, with the MIC range of ≤0.25 μg/mL in all of the S. pneumoniae isolates [1][2][3].

Solubility Information

Solubility	DMSO: 33.33 mg/mL (86.91 mM) H2O: 7.14 mg/mL (18.62 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.608 mL	13.038 mL	26.076 mL
5 mM	0.522 mL	2.608 mL	5.215 mL
10 mM	0.261 mL	1.304 mL	2.608 mL
50 mM	0.052 mL	0.261 mL	0.522 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Hazra S, et al. Tebipenem, a new carbapenem antibiotic, is a slow substrate that inhibits the β-lactamase from Mycobacterium tuberculosis. Biochemistry. 2014 Jun 10;53(22):3671-8.

2. Seenama C, et al. In vitro activity of tebipenem against Burkholderia pseudomallei. Int J Antimicrob Agents. 2013 Oct;42(4):375.

3. Li H, et al. In vitro antibacterial activities of two novel oral antibiotics, tebipenem and cefditoren, and other comparators against community-acquired respiratory tract infection-associated bacterial pathogens: A multicentre study in China. Int J Antimicrob Agents. 2014 Jan;43(1):92-

Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481