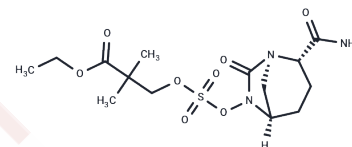


Avibactam tomilopil

Chemical Properties

CAS No. :	2245880-46-8
Formula:	C ₁₄ H ₂₃ N ₃ O ₈ S
Molecular Weight:	393.41
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Avibactam tomilopil (AV-006) is an orally bioavailable prodrug of Avibactam and functions as a β -lactamase inhibitor. Avibactam tomilopil effectively releases Avibactam, which inhibits class A and C β -lactamases, including extended-spectrum β -lactamases (ESBLs), AmpC enzymes, and Klebsiella pneumoniae carbapenemase (KPC), thereby broadening antibacterial coverage.
Targets(IC50)	Others,Antibacterial
In vivo	Avibactam tomilopil is an orally administered prodrug that is converted into the active ingredient Avibactam in vivo. When used in combination with Ceftibuten, Avibactam protects this β -lactam antibiotic from degradation by inhibiting enzymes produced by Gram-negative bacteria, thereby exerting synergistic antibacterial effects. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (203.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (8.39 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5419 mL	12.7094 mL	25.4188 mL
5 mM	0.5084 mL	2.5419 mL	5.0838 mL
10 mM	0.2542 mL	1.2709 mL	2.5419 mL
50 mM	0.0508 mL	0.2542 mL	0.5084 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Huband MD, et al. Determination of MIC Quality Control Ranges for Ceftibuten-Avibactam (Fixed 4 µg/mL), a Novel β-Lactam/β-Lactamase Inhibitor Combination. *J Clin Microbiol.* 2023 Jul 20;61(7):e0165722.

Veeraraghavan B, et al. Oral Antibiotics in Clinical Development for Community-Acquired Urinary Tract Infections. *Infect Dis Ther.* 2021;10(4):1815-1835.

Falcone M, et al. Spotlight on ceftazidime/avibactam: a new option for MDR Gram-negative infections. *J Antimicrob Chemother.* 2016;71(10):2713-2722.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481