

Zidebactam

Chemical Properties

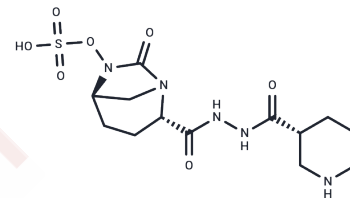
CAS No. : 1436861-97-0

Formula: C₁₃H₂₁N₅O₇S

Molecular Weight: 391.4

Storage: Store at low temperature, Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Zidebactam (WCK-5107) is an effective β -lactamase inhibitor. Zidebactam also is a penicillin-binding protein2 inhibitor (IC ₅₀ : 0.26 μ g/mL).
Targets(IC ₅₀)	Antibacterial
In vitro	Zidebactam inhibits WT Enterobacteriaceae (MIC ₅₀ : 0.25?mg/L). Zidebactam alone shows variable activity when tested against E. coli (MIC ₅₀ /90 0.12/0.12? mg/L) and Enterobacter spp. (MIC ₅₀ /90 0.12/0.25? mg/L) [1].

Solubility Information

Solubility	DMSO: 250 mg/mL (638.73 mM),Sonication is recommended. H ₂ O: 50 mg/mL (127.75 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: 5 mg/mL (12.77 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	2.5549 mL	12.7747 mL	25.5493 mL
5 mM	0.511 mL	2.5549 mL	5.1099 mL
10 mM	0.2555 mL	1.2775 mL	2.5549 mL
50 mM	0.0511 mL	0.2555 mL	0.511 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

Sader HS, et al. WCK 5222 (cefepime/zidebactam) antimicrobial activity tested against Gram-negative organisms producing clinically relevant β -lactamases. *J Antimicrob Chemother.* 2017 Jun 1;72(6):1696-1703.

Moya B, et al. WCK 5107 (Zidebactam) and WCK 5153 Are Novel Inhibitors of PBP2 Showing Potent " β -Lactam Enhancer" Activity against *Pseudomonas aeruginosa*, Including Multidrug-Resistant Metallo- β -Lactamase-Producing High-Risk Clones. *Antimicrob Agents Chemother.* 2017 May 24;61(6).

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