

FPI-1523

Chemical Properties

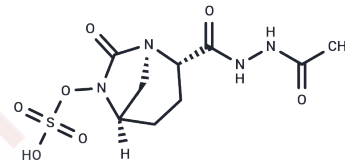
CAS No. : 1452459-50-5

Formula: C₉H₁₄N₄O₇S

Molecular Weight: 322.30

Storage: 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	FPI-1523, a derivative of Avibactam, is a potent inhibitor of β -lactamase enzymes with K _d values of 4 nM and 34 nM for CTX-M-15 and OXA-48, respectively. It also inhibits PBP2 with an IC ₅₀ of 3.2 μ M and demonstrates significant antimicrobial activity.
Targets(IC ₅₀)	Others,Antibacterial
In vitro	FPI-1523 demonstrates antimicrobial activity by inhibiting both E. coli K12 and its penicillin-binding protein 2 (PBP2), exhibiting a minimum inhibitory concentration (MIC) of 4 μ g/mL and an inhibitory concentration 50% (IC 50) of 0.4 μ g/mL, respectively[1]. Moreover, it effectively suppresses E. coli BW25113 pGDP-2 transformants, regardless of whether they carry an empty vector or express various β -lactamases, with notably low MIC values ranging from 1-2 μ M[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1027 mL	15.5135 mL	31.027 mL
5 mM	0.6205 mL	3.1027 mL	6.2054 mL
10 mM	0.3103 mL	1.5513 mL	3.1027 mL
50 mM	0.0621 mL	0.3103 mL	0.6205 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

King AM, et, al. Structural and Kinetic Characterization of Diazabicyclooctanes as Dual Inhibitors of Both Serine- β -Lactamases and Penicillin-Binding Proteins. ACS Chem Biol. 2016 Apr 15;11(4):864-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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