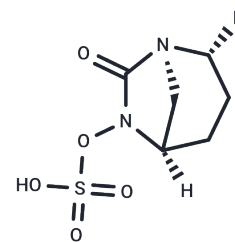


Pilabactam

Chemical Properties

CAS No. :	2410688-60-5
Formula:	C ₆ H ₉ FN ₂ O ₅ S
Molecular Weight:	240.21
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	ANT3310 is a broad-spectrum covalent inhibitor of serine β -lactamase (Serine β -Lactamase) with an IC ₅₀ range of 1 nM to 175 nM against various serine β -lactamases. ANT3310 enhances the efficacy of β -lactam antibiotics against carbapenem-resistant Enterobacteriaceae (CRE) and carbapenem-resistant Acinetobacter baumannii (CRAB). It is applicable for studies related to bacterial infections.
Targets(IC ₅₀)	Antibacterial
In vitro	Pilabactam (Compound 21, 0.006-3,000 nM, 10 minutes) effectively inhibits a range of serine β -lactamases, including AmpC, CTX-M-15, TEM-1, OXA-48, OXA-23, and KPC-2, with IC ₅₀ values from 1 nM to 175 nM. It demonstrates low in vitro cytotoxicity (IC ₅₀ : >100 μ M), cardiotoxicity (inhibition of hERG potassium channel), and genotoxicity (Ames test) in HepG2 cells.
In vivo	Pilabactam, when administered intravenously at doses of 25-100 mg/kg at 1, 3, 5, and 7 hours post-infection, reduces bacterial load in a mouse thigh infection model. For pharmacokinetic assessment, Pilabactam (intravenous injection, 1 mg/kg, male Swiss albino mice) exhibits a half-life (T _{1/2}) of 0.64 hours, an area under the curve (AUC) of 412 ng•h/mL, and a clearance (Cl) rate of 40 mL/min/kg.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.163 mL	20.8151 mL	41.6302 mL
5 mM	0.8326 mL	4.163 mL	8.326 mL
10 mM	0.4163 mL	2.0815 mL	4.163 mL
50 mM	0.0833 mL	0.4163 mL	0.8326 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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

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