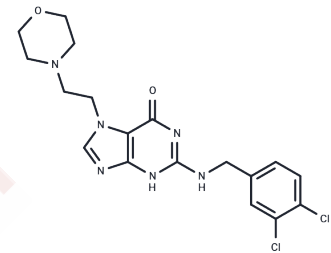


Ibezapolstat

Chemical Properties

CAS No. :	1275582-97-2
Formula:	C ₁₈ H ₂₀ Cl ₂ N ₆ O ₂
Molecular Weight:	423.3
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Ibezapolstat (ACX-362E) is an orally active DNA polymerase III C inhibitor, an antibiotic with antibacterial activity that inhibits <i>Clostridioides difficile</i> (<i>C. difficile</i>) and can be used for studying <i>Clostridioides difficile</i> infections.
Targets(IC50)	Antibacterial,DNA/RNA Synthesis,Drug Metabolite
In vitro	Ibezapolstat (IBZ) is a competitive inhibitor of the bacterial Pol III C enzyme with strong in vitro activity against wild-type, susceptible strains and a MIC _{50/90} of 4/8µg/mL against <i>C. difficile</i> strains. [1] Ibezapolstat is a first-in-class, orally active DNA polymerase III C (pol III C) inhibitor, with a K _i of 0.325 µM for the DNA pol III C from <i>C. difficile</i> . [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3624 mL	11.812 mL	23.6239 mL
5 mM	0.4725 mL	2.3624 mL	4.7248 mL
10 mM	0.2362 mL	1.1812 mL	2.3624 mL
50 mM	0.0472 mL	0.2362 mL	0.4725 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

Bassères E, et al. Antibacterial activity of ibezapolstat against antimicrobial-resistant clinical strains of *Clostridioides difficile*. *Antimicrob Agents Chemother*. 2024 Mar 6;68(3):e0162123.

Torti A, et al. *Clostridium difficile* DNA polymerase IIIC: basis for activity of antibacterial compounds. *Curr Enzym Inhib*. 2011 Oct;7(3):147-153.

Garey KW, et al. Efficacy, Safety, Pharmacokinetics, and Microbiome Changes of Ibezapolstat in Adults with *Clostridioides difficile* Infection: A Phase 2a Multicenter Clinical Trial. *Clin Infect Dis*. 2022 Sep 30;75(7):1164-1170.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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