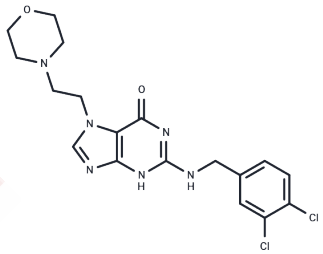
Data Sheet (Cat.No.T10243)

TargetMol

Ibezapolstat

Chemical Properties



CAS No. : 1275582-97-2

Formula: C18H20Cl2N6O2

Molecular Weight: 423.3

Storage: Store at low temperature
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	Ibezapolstat (ACX-362E) is an orally active DNA polymerase IIIC inhibitor, an antibiotic with antibacterial activity that inhibits Clostridioides difficile (C. difficile) and can be used for studying Clostridioides difficile infections.
Targets(IC50)	Antibacterial,DNA/RNA Synthesis,Drug Metabolite
In vitro	Ibezapolstat (IBZ) is a competitive inhibitor of the bacterial Pol IIIC enzyme with strong in vitro activity against wild-type, susceptible strains and a MIC50/90 of 4/8μg/mL against C. difficile strains. [1] Ibezapolstat is a first-in-class, orally active DNA polymerase IIIC (pol IIIC) inhibitor, with a Ki of 0.325 μM for the DNA pol IIIC from C. difficile.[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.

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