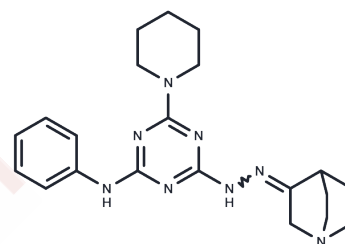


ATB107

Chemical Properties

CAS No. : 455325-51-6
 Formula: C₂₁H₂₈N₈
 Molecular Weight: 392.5
 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	ATB107 is a potent and novel inhibitor of indole-3-glycerol phosphate synthase (IGPS, KD: 3 μ M).
Targets(IC50)	Others,DNA/RNA Synthesis
In vitro	ATB107 exhibits potent antibacterial activity against M. tuberculosis H37Ra and H37Rv strains with a minimum inhibitory concentration (MIC) of 0.1 μ g/mL. Additionally, it effectively inhibits 100% of 50 fully susceptible clinical isolates at a concentration of 1 μ g/mL, and 82% of these isolates at a concentration of 0.1 μ g/mL. Among multidrug-resistant TB (MDR-TB) isolates, 83.8% are susceptible to ATB107 at 1 μ g/mL, with a lower susceptibility rate of 31.3% observed at 0.1 μ g/mL. Furthermore, the efficacy of ATB107 is concentration-dependent, correlating directly with its binding ability. Specifically, at a concentration of 200 μ g/mL, ATB107 impedes cell proliferation, resulting in a survival rate of approximately 60%. Conversely, a lower concentration of 50 μ g/mL ensures a cell survival rate exceeding 80%, highlighting its potency and concentration-dependent effects.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5478 mL	12.7389 mL	25.4777 mL
5 mM	0.5096 mL	2.5478 mL	5.0955 mL
10 mM	0.2548 mL	1.2739 mL	2.5478 mL
50 mM	0.051 mL	0.2548 mL	0.5096 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

Shen H, et al. A novel inhibitor of indole-3-glycerol phosphate synthase with activity against multidrug-resistant Mycobacterium tuberculosis. FEBS J. 2009 Jan;276(1):144-54.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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