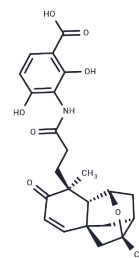


Platensimycin

Chemical Properties

CAS No. :	835876-32-9
Formula:	C ₂₄ H ₂₇ N ₀ O ₇
Molecular Weight:	441.47
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	Platensimycin (PTM) is an antibiotic produced by <i>S. platensis</i> that inhibits Gram-positive bacteria by selectively inhibiting cellular lipid biosynthesis (IC ₅₀ = 0.1 μM). It targets the β-ketoacyl-acyl-carrier-protein synthase I/II, FabF/B, an enzyme that participates in the biosynthesis of fatty acids (IC ₅₀ s = 48 and 160 nM for <i>S. aureus</i> and <i>E. coli</i> enzymes, respectively). By specifically targeting fatty acid synthesis in bacteria, PTM is thought to be a promising agent for overcoming antibiotic resistance. PTM is also a selective inhibitor of the mammalian fatty acid synthase and has been shown to reduce liver triglyceride levels and to improve insulin sensitivity in a diabetic mouse model after an oral dose of 30 mg/kg.
Targets(IC ₅₀)	Others, Antibacterial, Antibiotic

Solubility Information

Solubility	Methanol: Soluble Ethanol: Soluble DMSO: Soluble DMF: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2652 mL	11.3258 mL	22.6516 mL
5 mM	0.453 mL	2.2652 mL	4.5303 mL
10 mM	0.2265 mL	1.1326 mL	2.2652 mL
50 mM	0.0453 mL	0.2265 mL	0.453 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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