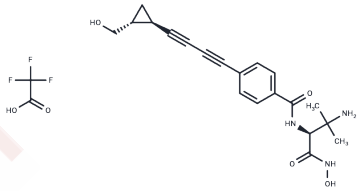
Data Sheet (Cat.No.T10236)

TargetMol

ACHN-975 TFA

Chemical Properties



CAS No. : 1410809-37-8

Formula: C22H24F3N3O6

Molecular Weight: 483.44

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	ACHN-975 TFA is a selective inhibitor of the bacterial enzyme LpxC with nM-level activity. It exhibits antimicrobial activity with MIC values below 1 μg/mL against multiple Gram-negative bacteria.
Targets(IC50)	Antibacterial
In vitro	ACHN-975 TFA demonstrated potent inhibitory activity against all tested Pseudomonas aeruginosa isolates, with MIC50 and MIC90 values of 0.06 and 0.25 μg/ml, respectively [2].
In vivo	In the neutropenic murine thigh infection model, ACHN-975 TFA at doses of 10 mg/kg and 30 mg/kg significantly reduced bacterial counts within 4 hours and maintained them below the detection limit for 24 hours [2].
Animal Research	Animal Model: Neutropenic mouse thigh model with P. aeruginosa ATCC 27853. Dosage: 5-30 mg/kg. Administration: i.p.; single dose [2]

Solubility Information

Solubility	DMSO: 80.00 mg/mL (165.48 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0685 mL	10.3425 mL	20.6851 mL
5 mM	0.4137 mL	2.0685 mL	4.137 mL
10 mM	0.2069 mL	1.0343 mL	2.0685 mL
50 mM	0.0414 mL	0.2069 mL	0.4137 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

Kalinin DV, et al. Insights into the Zinc-Dependent Deacetylase LpxC: Biochemical Properties and Inhibitor Design. Curr Top Med Chem. 2016;16(21):2379-430.

Krause KM,et al. Potent LpxC Inhibitors with In Vitro Activity against Multidrug-Resistant Pseudomonas aeruginosa. Antimicrob Agents Chemother. 2019 Oct 22;63(11). pii: e00977-19.

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