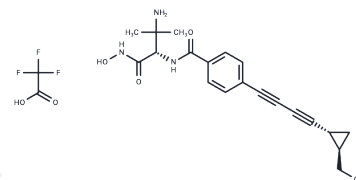


ACHN-975 TFA

Chemical Properties

CAS No. :	1410809-37-8
Formula:	C ₂₂ H ₂₄ F ₃ N ₃ O ₆
Molecular Weight:	483.4377
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	ACHN-975 TFA is a selective LpxC inhibitor with a subnanomolar inhibitory. It is against a wide range of gram-negative bacterias with low MIC values (≤ 1 $\mu\text{g/mL}$).
Targets(IC ₅₀)	Others
In vitro	ACHN-975 is against Enterobacteriaceae spp, Pa, and Ab with MIC ₉₀ values of 1, 0.5, and >64 $\mu\text{g/mL}$, respectively [1].ACHN-975 is potently against the P. aeruginosa isolates tested, inhibiting 100% of the isolates at a MIC of ≤ 2 $\mu\text{g/mL}$. It against Pseudomonas aeruginosa with an MIC ₅₀ and MIC ₉₀ of 0.06 and 0.25 $\mu\text{g/mL}$, respectively. ACHN-975 is against six P. aeruginosa isolates, it against P. aeruginosa APAE1064, APAE1232, and APAE1064 isolates with MIC values of 0.12, 0.06, and 0.06 $\mu\text{g/mL}$, respectively [2].
In vivo	ACHN-975 TFA (i.p.; 5-30 mg/kg ; single dose) leads to a steady reduction in bacterial titers in the first 4?h following treatment for all dosing groups. The sampling shows that the level of free drug in this model drops below the ACHN-975 MIC for this isolate (0.25 $\mu\text{g/mL}$) by 2?h after treatment with the 10 mg/kg dose and by 4?h after treatment with the 30 mg/kg dose [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]

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.

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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