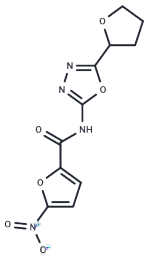
Data Sheet (Cat.No.T71725)

TargetMol

IMB-XMA0038

Chemical Properties



CAS No. : 921812-26-2

Formula: C11H10N4O6

Molecular Weight: 294.22

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	IMB-XMA0038 is a novel inhibitor targeting Mycobacterium tuberculosis aspartate semialdehyde dehydrogenase with antimicrobial activity for use in tuberculosis research.
Targets(IC50)	Dehydrogenase
In vitro	Synergistic effects were observed for IMB-XMA0038 when used together with almost all other anti-tuberculosis drugs against most Mtb isolates. IMB-XMA0038 exhibited greater activity than rifampin against Mtb under hypoxic conditions, as reflected by CFU decreases of 1.1-log-unit versus 0.8-log-unit, respectively, for IMB-XMA0038 and rifampin concentrations of 4×MIC. [1]

Solubility Information

Solubility	DMSO: 50 mg/mL (169.94 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3988 mL	16.9941 mL	33.9882 mL
5 mM	0.6798 mL	3.3988 mL	6.7976 mL
10 mM	0.3399 mL	1.6994 mL	3.3988 mL
50 mM	0.068 mL	0.3399 mL	0.6798 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

Yang R, et al. Evaluation of a novel inhibitor of aspartate semialdehyde dehydrogenase as a potent antitubercular agent against Mycobacterium tuberculosis. J Antibiot (Tokyo). 2022 Jun;75(6):333-340.

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