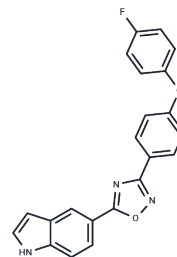


CAY10742

Chemical Properties

CAS No. : 1649473-91-5
 Formula: C₂₂H₁₄FN₃O₂
 Molecular Weight: 371.371
 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	CAY10742 is an orally bioavailable oxadiazole antibiotic. It is active against the Gram-positive bacteria <i>S. aureus</i> , <i>S. epidermidis</i> , <i>S. haemolyticus</i> , <i>B. cereus</i> , <i>B. licheniformis</i> , <i>E. faecalis</i> , and <i>E. faecium</i> (MICs = 1-4 µg/ml), including laboratory strains and clinical isolates with varying degrees of resistance to methicillin, vancomycin, linezolid, and other antibiotics. CAY10742 (40 mg/kg) reduces the number of bacteria in mouse neutropenic thigh models of linezolid-sensitive or -resistant methicillin-resistant <i>S. aureus</i> (MRSA) infection.
Targets(IC50)	Others, Antibacterial

Solubility Information

Solubility	DMF: 11 mg/mL (29.62 mM), Sonication is recommended. DMSO: 10 mg/mL (26.93 mM), Sonication is recommended. DMF:PBS (pH 7.2) (1:2): 0.3 mg/mL (0.81 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6927 mL	13.4637 mL	26.9273 mL
5 mM	0.5385 mL	2.6927 mL	5.3855 mL
10 mM	0.2693 mL	1.3464 mL	2.6927 mL
50 mM	0.0539 mL	0.2693 mL	0.5385 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

Boudreau, M.A., Ding, D., Meisel, J.E., et al. Structure-activity relationship for the oxadiazole class of antibacterials. *Med. Chem. Lett.* 11(3)322-326(2019)

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