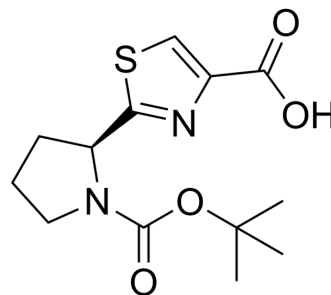


Antibiotic-5d

Cat. No.:	HY-100833		
CAS No.:	251349-54-9		
Molecular Formula:	C ₁₃ H ₁₈ N ₂ O ₄ S		
Molecular Weight:	298.36		
Target:	Bacterial; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (335.17 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.3517 mL	16.7583 mL	33.5166 mL
		5 mM	0.6703 mL	3.3517 mL	6.7033 mL
10 mM		0.3352 mL	1.6758 mL	3.3517 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.38 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.38 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.38 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Antibiotic-5d is a synthesis and antimicrobial compound.
IC₅₀ & Target	Antibacterial ^[1]
In Vitro	Antibiotic-5d shows moderate antibacterial activity in vitro against various Gram-positive (Staphylococcus aureus, Bacillus cereus, etc.) and Gram-negative (Escherichia coli, Proteus vulgaris, etc.) bacteria, fungi (Candida albicans), and yeast (Saccharomyces cerevisiae, etc.) ^[1] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Stanchev M, et al. Synthesis and antimicrobial activity in vitro of new amino acids and peptides containing thiazole and oxazole moieties. Arch Pharm (Weinheim). 1999 Sep;332(9):297-304.

Caution: Product has not been fully validated for medical applications. For research use only.

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