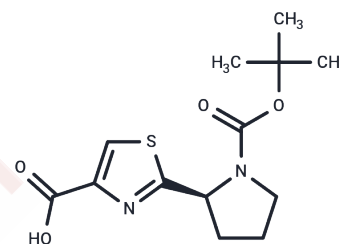


## Antibiotic-5d

## Chemical Properties

CAS No. :	251349-54-9
Formula:	C <sub>13</sub> H <sub>18</sub> N <sub>2</sub> O <sub>4</sub> S
Molecular Weight:	298.36
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	Antibiotic-5d is a synthetic antimicrobial compound. It exhibits moderate antimicrobial activity against a wide range of Gram-positive and Gram-negative bacteria, fungi and yeast.
Targets(IC <sub>50</sub> )	Antibacterial, Antibiotic
In vitro	Antibiotic-5d exhibits moderate in vitro antibacterial efficacy against a range of Gram-negative bacteria (Escherichia coli, Proteus vulgaris, etc.) and Gram-positive bacteria (Staphylococcus aureus, Bacillus cereus, etc.), as well as fungi (Candida albicans) and yeast (Saccharomyces cerevisiae, etc.).

## Solubility Information

Solubility	DMSO: 50 mg/mL (167.58 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.5 mg/mL (8.38 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
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
50 mM	0.067 mL	0.3352 mL	0.6703 mL

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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

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.

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