

Thiomandelic acid

Chemical Properties

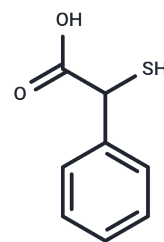
CAS No. : 4695-09-4

Formula: C₈H₈O₂S

Molecular Weight: 168.21

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	Thiomandelic acid is a simple, broad-spectrum and quite potent metallo-β-lactamase inhibitor, an antimicrobial compound.
Targets(IC50)	Others,Antibacterial

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.9449 mL	29.7247 mL	59.4495 mL
5 mM	1.189 mL	5.9449 mL	11.8899 mL
10 mM	0.5945 mL	2.9725 mL	5.9449 mL
50 mM	0.1189 mL	0.5945 mL	1.189 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

Karsisiotis AI, Damblon C, Roberts GC. Complete ^1H , ^{15}N , and ^{13}C resonance assignments of *Bacillus cereus* metallo- β -lactamase and its complex with the inhibitor R-thiomandelic acid. *Biomol NMR Assign*. 2014 Oct;8(2): 313-8. doi: 10.1007/s12104-013-9507-1. Epub 2013 Jul 10. PubMed PMID: 23838816; PubMed Central PMCID: PMC4145196.

Karsisiotis AI, Damblon CF, Roberts GC. Solution structures of the *Bacillus cereus* metallo- β -lactamase BcII and its complex with the broad spectrum inhibitor R-thiomandelic acid. *Biochem J*. 2013 Dec 15;456(3):397-407. doi: 10.1042/BJ20131003. PubMed PMID: 24059435; PubMed Central PMCID: PMC3898119.

Mollard C, Moali C, Papamicael C, Damblon C, Vessilier S, Amicosante G, Schofield CJ, Galleni M, Frere JM, Roberts GC. Thiomandelic acid, a broad spectrum inhibitor of zinc beta-lactamases: kinetic and spectroscopic studies. *J Biol Chem*. 2001 Nov 30;276(48):45015-23. Epub 2001 Sep 19. PubMed PMID: 11564740.

Damblon C, Jensen M, Ababou A, Barsukov I, Papamicael C, Schofield CJ, Olsen L, Bauer R, Roberts GC. The inhibitor thiomandelic acid binds to both metal ions in metallo-beta-lactamase and induces positive cooperativity in metal binding. *J Biol Chem*. 2003 Aug 1;278(31):29240-51. Epub 2003 Apr 29. PubMed PMID: 12724330.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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