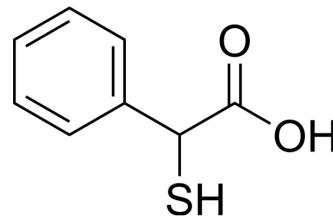


Thiomandelic acid

| | | | |
|---------------------------|--|-------|----------|
| Cat. No.: | HY-129629 | | |
| CAS No.: | 4695-09-4 | | |
| Molecular Formula: | C ₈ H ₈ O ₂ S | | |
| Molecular Weight: | 168.21 | | |
| Target: | Bacterial; Beta-lactamase | | |
| 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 : 250 mg/mL (1486.24 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|--------------------------|-----------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 5.9449 mL | 29.7247 mL | 59.4495 mL |
| | 5 mM | 1.1890 mL | 5.9449 mL | 11.8899 mL |
| | 10 mM | 0.5945 mL | 2.9725 mL | 5.9449 mL |

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Thiomandelic acid is a broad spectrum inhibitor of Zinc -lactamases^[1].

In Vitro

Thiomandelic acid is found to be a reasonably potent (submicromolar) inhibitor for all of the MBLs tested, except for the subclass B2 enzyme from *A. hydrophila* (CphA)^[1].
Thiomandelic Acid binds to both metal ions in metallo-β-lactamase and induces positive cooperativity in metal binding^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. C Mollard, et al. Thiomandelic acid, a broad spectrum inhibitor of zinc beta-lactamases: kinetic and spectroscopic studies. *J Biol Chem.* 2001 Nov 30;276(48):45015-23.
- [2]. Christian Damblon, et al. 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.

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

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