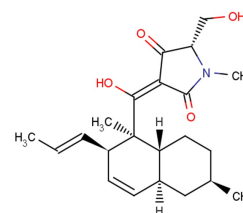


## Equisetin

### Chemical Properties

|                   |  |
|-------------------|--|
| CAS No.:          | 57749-43-6   |
| Formula:          | C <sub>22</sub> H <sub>31</sub> NO <sub>4</sub>                        |
| Molecular Weight: | 373.49   |
| Appearance:       | N/A  |
| Storage:          | 0-4°C for short term (days to weeks), or -20°C for long term (months). |



### Biological Description

|                            |   |
|----------------------------|---|
| Description                | Equisetin is a Quorum-sensing inhibitor (QSI) that attenuates QS-regulated virulence phenotypes in <i>P. aeruginosa</i> without affecting the growth of bacterias, serves as a leading compound for the treatment of <i>P. aeruginosa</i> infections. Equisetin is an N-methylserine-derived acyl tetramic acid isolated from a terrestrial fungus <i>Fusarium equiseti</i> NRRL 5537. Equisetin is a tetramate-containing natural product with antibiotic and cytotoxic activity. Equisetin inhibits the growth of Gram-positive bacteria and HIV-1 integrase activity but shows no activity against Gram-negative bacteria. |
| Targets(IC <sub>50</sub> ) | Others: None  |

### Solubility Information

|            |   |
|------------|---|
| Solubility | < 1 mg/ml refers to the product slightly soluble or insoluble |
|------------|---|

#### Preparing Stock Solutions

|       | 1mg      | 5mg       | 10mg      |
|-------|----------|-----------|-----------|
| 1 mM  | 2.677 mL | 13.387 mL | 26.774 mL |
| 5 mM  | 0.535 mL | 2.677 mL  | 5.355 mL  |
| 10 mM | 0.268 mL | 1.339 mL  | 2.677 mL  |
| 50 mM | 0.054 mL | 0.268 mL  | 0.535 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

#### Reference

- Burmeister HR, et al. Antibiotic produced by *Fusarium equiseti* NRRL 5537. *Antimicrob Agents Chemother.* 1974 Jun;5(6):634-9.
- Vesonder RF, et al. Equisetin, an antibiotic from *Fusarium equiseti* NRRL 5537, identified as a derivative of N-methyl-2, 4-pyrrolidone. *J Antibiot (Tokyo).* 1979 Jul;32(7):759-61.
- Lee J, et al. The hierarchy quorum sensing network in *Pseudomonas aeruginosa*. *Protein Cell.* 2015 Jan;6(1):26-41.
- Zhang M, et al. Equisetin as potential quorum sensing inhibitor of *Pseudomonas aeruginosa*. *Biotechnol Lett.* 2018 May;40(5):865-870.

Inhibitors · Natural Compounds · Compound Libraries

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use.

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