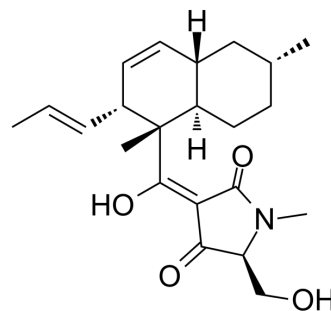


## Equisetin

Cat. No.:	HY-N6711		
CAS No.:	57749-43-6		
Molecular Formula:	C <sub>22</sub> H <sub>31</sub> NO <sub>4</sub>		
Molecular Weight:	373.49		
Target:	HIV Integrase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

#### Description

Equisetin is an N-methylserine-derived acyl tetramic acid isolated from a terrestrial fungus *Fusarium equiseti* NRRL 5537<sup>[1]</sup>. Equisetin is a tetramate-containing natural product with antibiotic and cytotoxic activity<sup>[2]</sup>. Equisetin inhibits the growth of Gram-positive bacteria and HIV-1 integrase activity but shows no activity against Gram-negative bacteria<sup>[3]</sup>. Equisetin is a Quorum-sensing inhibitor (QSI) that attenuates QS-regulated virulence phenotypes in *P. aeruginosa* without affecting the growth of bacteria, serves as a leading compound for the treatment of *P. aeruginosa* infections<sup>[4]</sup>.

### REFERENCES

- [1]. Burmeister HR, et al. Antibiotic produced by *Fusarium equiseti* NRRL 5537. *Antimicrob Agents Chemother.* 1974 Jun;5(6):634-9.
- [2]. 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.
- [3]. Lee J, et al. The hierarchy quorum sensing network in *Pseudomonas aeruginosa*. *Protein Cell.* 2015 Jan;6(1):26-41.
- [4]. Zhang M, et al. Equisetin as potential quorum sensing inhibitor of *Pseudomonas aeruginosa*. *Biotechnol Lett.* 2018 May;40(5):865-870.

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

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