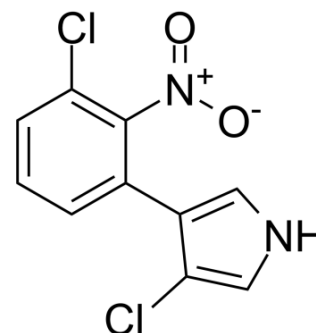


## Pyrrolnitrin

<b>Cat. No.:</b>	HY-133704
<b>CAS No.:</b>	1018-71-9
<b>Molecular Formula:</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	257.07
<b>Target:</b>	Bacterial; Fungal
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Pyrrolnitrin is an antibiotic isolated from <i>Pseudomonas pyrocinia</i> . Pyrrolnitrin shows a broad spectrum of antibiotic activity against fungi, yeast and gram-positive bacteria <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Target: fungi, yeast and gram-positive bacteria <sup>[1]</sup>
<b>In Vitro</b>	<p>Pyrrolnitrin (0-100 µg/ml) shows antibiotic activities against various bacteria and fungi with different MIC values. It against <i>Staphylococcus aureus</i>, <i>Mycobacterium</i>, <i>Bacillus subtilis</i>, <i>Candida albicans</i>, <i>Aspergillus niger</i>, and <i>Trichophyton rubrum</i> with MIC values of 50 µg/ml, 100 µg/ml, 0.78 µg/ml, 10 µg/ml, 12.5 µg/ml, and 1 µg/ml, respectively<sup>[1]</sup>.</p> <p>Pyrrolnitrin (0-100 µg/ml) exhibits antimicrobial effect in a microtitre plate assay. It against <i>Arthrobacter oxydans</i> ATCC 14358, <i>Bacillus coagulans</i> ATCC 7050, <i>Bacillus licheniformis</i> ATCC 14580, <i>Bacillus subtilis</i> ATCC 6051, and <i>Bacillus thuringiensis</i> ATCC 10792 with MIC of 6.25 µg/ml<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

- [1]. K H van Pée, et al. Biosynthesis of Pyrrolnitrin and Other Phenylpyrrole Derivatives by Bacteria. *Nat Prod Rep*. 2000 Apr;17(2):157-64.
- [2]. N el-Banna, et al. Pyrrolnitrin From *Burkholderia Cepacia*: Antibiotic Activity Against Fungi and Novel Activities Against Streptomycetes. *J Appl Microbiol*. 1998 Jul;85(1):69-78.
- [3]. R S Gordee, et al. Systemic Antifungal Activity of Pyrrolnitrin. *Appl Microbiol*. 1969 May;17(5):690-4.

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

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