

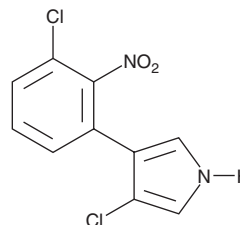
PRODUCT INFORMATION



Pyrrrolnitrin

Item No. 35099

CAS Registry No.: 1018-71-9
Formal Name: 3-chloro-4-(3-chloro-2-nitrophenyl)-1H-pyrrole
Synonyms: NSC 107654, NSC 637277
MF: C₁₀H₆Cl₂N₂O₂
FW: 257.1
Purity: ≥97%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Pyrrrolnitrin is supplied as a solid. A stock solution may be made by dissolving the pyrrrolnitrin in the solvent of choice, which should be purged with an inert gas. Pyrrrolnitrin is soluble in the organic solvent DMSO at a concentration of approximately 10 mM

Description

Pyrrrolnitrin is pyrrole that has been found in *B. cepacia* and has diverse biological activities.¹⁻³ It is active against isolates of the fungi *C. albicans*, *C. neoformans*, *B. dermatitidis*, *S. schenckii*, and *H. capsulatum* (MICs = <0.78-12.5 µg/ml).¹ Pyrrrolnitrin is also active against a variety of Gram-positive bacteria, including *S. antibioticus*, *B. subtilis*, and *S. aureus* (MICs = 0.2, 6.25, and 12.5 µg/ml, respectively).² It reduces spore germination, germ-tube length, and sporulation in isolates of the phytopathogenic fungus *B. cinerea* (EC₅₀s = 2.3-31.8 µg/L).³ Pyrrrolnitrin (50 mg/kg) reduces *C. albicans* levels by 74% in the kidney of infected mice.¹

References

1. Gordee, R.S. and Matthews, T.R. Systemic antifungal activity of pyrrrolnitrin. *Appl. Microbiol.* **17(5)**, 690-694 (1969).
2. El-Banna, N. and Winkelmann, G. Pyrrrolnitrin from *Burkholderia cepacia*: Antibiotic activity against fungi and novel activities against streptomycetes. *J. Appl. Microbiol.* **85(1)**, 69-78 (1998).
3. Ajouz, S., Walker, A.S., Fabre, F., et al. Variability of *Botrytis cinerea* sensitivity to pyrrrolnitrin, an antibiotic produced by biological control agents. *BioControl* **56(3)**, 353-363 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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