
Product Data Sheet

Product Name: Pyrrolnitrin

Cat. No.: GC63287

Chemical Properties

Cas. No. 1018-71-9

Formula $C_{10}H_6Cl_2N_2O_2$ M.Wt 257.07

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available sizes: ship with RT, or blue ice upon request.

Structure

Background

Pyrrolnitrin is pyrrole that has been found in *B. cepacia* and has diverse biological activities.^{1,2,3} 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 Pyrrolnitrin 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 Pyrrolnitrin (50 mg/kg) reduces *C. albicans* levels by 74% in the kidney of infected mice.¹

1. Gordee, R.S., and Matthews, T.R. Systemic antifungal activity of pyrrolnitrin. *Appl. Microbiol.* 17(5)690-694 (1969)
2. El-Banna, N., and Winkelmann, G. Pyrrolnitrin 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 pyrrolnitrin, an antibiotic produced by biological control agents. *BioControl* 56(3)353-363 (2011)

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

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