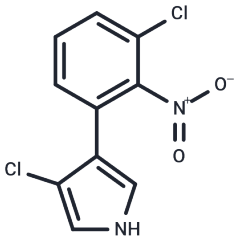
Data Sheet (Cat.No.T38413)

TargetMol

Pyrrolnitrin

Chemical Properties



CAS No. : 1018-71-9

Formula: C10H6Cl2N2O2

Molecular Weight: 257.07

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Pyrrolnitrin, an antibiotic derived from Pseudomonas pyrrocinia, exhibits a broad spectrum of antibiotic activity, effectively targeting fungi, yeast, and gram-positive bacteria.
Targets(IC50)	Antibacterial,Antibiotic,Antifungal
In vitro	Pyrrolnitrin (0-100 μg/ml) shows antibiotic activities against various bacteria and fungi with different MIC values. It against Staphylococcus aureus , Mycobacterium , Bacillus subtillis , Candida albicans , Aspergillus niger , and Trichophyton rubrum 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[1]. Pyrrolnitrin (0-100 μg/ml) exhibits antimicrobial effect in a microtitre plate assay. It against Arthrobacter oxydans ATCC 14358, Bacillus coagulans ATCC 7050, Bacillus licheniformis ATCC 14580, Bacillus subtilis ATCC 6051, and Bacillus thuringiensis ATCC 10792 with MIC of 6.25 μg/ml[2].

Solubility Information

Solubility	DMSO: 2.57 mg/mL (10 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.890 mL	19.450 mL	38.8999 mL
5 mM	0.778 mL	3.890 mL	7.780 mL
10 mM	0.389 mL	1.945 mL	3.890 mL
50 mM	0.0778 mL	0.389 mL	0.778 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

K H van Pée, et al. Biosynthesis of Pyrrolnitrin and Other Phenylpyrrole Derivatives by Bacteria. Nat Prod Rep. 2000 Apr;17(2):157-64.
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.
R S Gordee, et al.Systemic Antifungal Activity of Pyrrolnitrin.Appl Microbiol. 1969 May;17(5):690-4.