

Antifungal agent 38

Chemical Properties

CAS No. :

Formula: C₈H₁₂N₂S₂

Molecular Weight: 200.32

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	Antifungal agent 38 is a heterocyclic disulfide with antifungal and antibacterial properties. It induces hyphal shrinkage, disrupts plasma membrane integrity, and causes cell content damage and leakage [1].
Targets(IC50)	Others,Antibacterial,Antifungal
In vitro	Antifungal agent 38 demonstrates significant antifungal efficacy at a concentration of 50 µg/mL, inhibiting the growth of 10 pathogenic fungi with rates ranging from 37.32% (<i>M. oryzae</i>) to 100% (<i>S. sclerotiorum</i> , <i>A. flavus</i> , <i>M. fructicola</i>) [1]. At a lower dose of 5 µg/mL, it compromises the plasma membrane integrity of <i>M. fructicola</i> , while at 100 µg/mL, it exhibits strong antibacterial activity against <i>X. oryzae</i> accc 11602 and <i>X. axonopodis</i> [1]. Its inhibitory concentration (EC ₅₀) values against various fungi include 17.09 µg/mL (<i>R. solani</i>), 6.34 µg/mL (<i>S. sclerotiorum</i>), and over 10 µg/mL for (<i>A. flavus</i>), indicating a potent fungicidal action [1]. Furthermore, a cell viability assay on <i>M. fructicola</i> across concentrations of 10, 25, and 50 µg/mL over periods of 2, 4, and 6 days confirmed its growth inhibition [1].
In vivo	Antifungal agent 38 (compound S8), at a concentration of 200 µg/mL, exhibits effects similar to the positive control, Thiophanate-Methyl, in curing and superior efficacy in prevention in vivo [1]. When applied to pears in doses of 50, 100, and 200 µg/mL (30 mL; sprinkling), it effectively inhibits the growth of <i>M. fructicola</i> in vivo [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.992 mL	24.9601 mL	49.9201 mL
5 mM	0.9984 mL	4.992 mL	9.984 mL
10 mM	0.4992 mL	2.496 mL	4.992 mL
50 mM	0.0998 mL	0.4992 mL	0.9984 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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