

## Chitin synthase inhibitor 1

## Chemical Properties

CAS No. :

Formula: C<sub>22</sub>H<sub>20</sub>ClN<sub>3</sub>O<sub>3</sub>

Molecular Weight: 409.87

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	Chitin synthase inhibitor 1 is a potent and selective chitin synthase (CHS) inhibitor with an IC <sub>50</sub> of 0.12 mM, effectively inhibiting drug-resistant fungi variants.
Targets(IC <sub>50</sub> )	Others,Antibiotic,Antifungal
In vitro	Chitin Synthase Inhibitor 1 (Compound 5a) exhibits broad-spectrum antifungal efficacy, demonstrated by its minimal inhibitory concentrations (MICs): 4 µg/mL against <i>Candida albicans</i> ( <i>C. albicans</i> ) ATCC 76615 and <i>Aspergillus fumigatus</i> ( <i>A. fumigatus</i> ) GIMCC 3.19, and 8 µg/mL against <i>Aspergillus flavus</i> ( <i>A. flavus</i> ) ATCC 16870 and <i>Cryptococcus neoformans</i> ( <i>C. neoformans</i> ) ATCC 32719. Additionally, it is effective against drug-resistant fungal strains, with MICs of 32 µg/mL for Fluconazole-resistant <i>C. albicans</i> ATCC 76615R, Fluconazole-resistant <i>A. fumigatus</i> GIMCC 3.19R, and Fluconazole-resistant <i>C. neoformans</i> ATCC 32719R, and Micafungin-resistant <i>C. albicans</i> ATCC 76615R', and 16 µg/mL for Fluconazole-resistant <i>A. flavus</i> ATCC 16870R [1].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4398 mL	12.199 mL	24.398 mL
5 mM	0.488 mL	2.4398 mL	4.8796 mL
10 mM	0.244 mL	1.2199 mL	2.4398 mL
50 mM	0.0488 mL	0.244 mL	0.488 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**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481