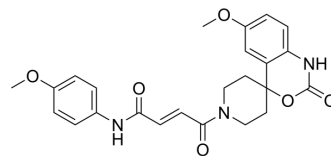


Chitin synthase inhibitor 6

Cat. No.:	HY-151416
Molecular Formula:	C ₂₄ H ₂₅ N ₃ O ₆
Molecular Weight:	451.47
Target:	Fungal
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Chitin synthase inhibitor 6 (compound 9b) is a potent chitin synthase (CHS) inhibitor with an IC ₅₀ value of 0.21 mM. Chitin synthase inhibitor 6 has broad-spectrum antifungal activity against drug-resistant fungi. Chitin synthase inhibitor 6 can be used in the research of fungi infection ^[1] .
In Vitro	Chitin synthase inhibitor 6 (compound 9b; 300 µg/mL) inhibits chitin synthase (CHS) activity with an inhibition percentage (IP) value of 82% ^[1] . Chitin synthase inhibitor 6 (1-512 µg/mL) has antifungal activity against four strains with minimum inhibitory concentration (MIC) values of 64, 64, 128, and 256 µg/mL for <i>C. albicans</i> , <i>A. flavus</i> , <i>A. fumigatus</i> , and <i>C. neoformans</i> , respectively ^[1] . Chitin synthase inhibitor 6 (0-256 µg/mL (50 µL), 24 h) shows strong synergistic effect against <i>A. fumigatus</i> when combined with Fluconazole (HY-10219). Chitin synthase inhibitor 6 and fluconazole combination against <i>C. neoformans</i> (FIC = 0.625) and additive effect against <i>C. albicans</i> (FIC = 1.10). <i>A. fumigatus</i> (FIC = 1.125) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Xu Y, et, al. Spiro[benzoxazine-piperidin]-one derivatives as chitin synthase inhibitors and antifungal agents: Design, synthesis and biological evaluation. *Eur J Med Chem.* 2022 Aug 31;243:114723.

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

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