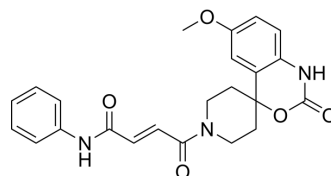


## Chitin synthase inhibitor 8

Cat. No.:	HY-151418
Molecular Formula:	C <sub>23</sub> H <sub>23</sub> N <sub>3</sub> O <sub>5</sub>
Molecular Weight:	421.45
Target:	Fungal
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Chitin synthase inhibitor 8 is a chitin synthase (CHS) inhibitor with broad-spectrum antifungal activity. Chitin synthase inhibitor 8 can be used in the research of fungi infection <sup>[1]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	Chitin synthase <sup>[1]</sup>								
<b>In Vitro</b>	<p>Chitin synthase inhibitor 8 (compound 9d, 300 µg/mL) inhibits chitin synthase (CHS) by 69%<sup>[1]</sup>.</p> <p>Chitin synthase inhibitor 8 (0.0625-0.25 µM, 24 h) shows antifungal activities<sup>[1]</sup>.</p> <p>Chitin synthase inhibitor 8 (32 µg/mL, 24 h) shows strong synergistic effect against <i>A. fumigatus</i> when combined with <a href="#">Fluconazole</a> (HY-10219)<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td><i>C. albicans</i>, <i>A. flavus</i>, <i>A. fumigatus</i>, <i>C. neoformans</i></td> </tr> <tr> <td>Concentration:</td> <td>1-512 µg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited four fungi with IC<sub>50</sub> value of 64, 53.33, 15.08, 64 µg/mL respectively.</td> </tr> </table>	Cell Line:	<i>C. albicans</i> , <i>A. flavus</i> , <i>A. fumigatus</i> , <i>C. neoformans</i>	Concentration:	1-512 µg/mL	Incubation Time:	24 h	Result:	Inhibited four fungi with IC <sub>50</sub> value of 64, 53.33, 15.08, 64 µg/mL respectively.
Cell Line:	<i>C. albicans</i> , <i>A. flavus</i> , <i>A. fumigatus</i> , <i>C. neoformans</i>								
Concentration:	1-512 µg/mL								
Incubation Time:	24 h								
Result:	Inhibited four fungi with IC <sub>50</sub> value of 64, 53.33, 15.08, 64 µg/mL respectively.								

### REFERENCES

[1]. Yajie Xu, 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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