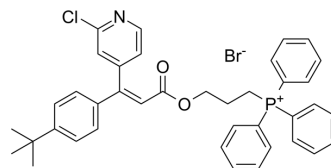


Antifungal agent 47

Cat. No.:	HY-149067
CAS No.:	2719867-46-4
Molecular Formula:	C ₃₉ H ₃₈ BrClNO ₂ P
Molecular Weight:	699.06
Target:	Fungal
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antifungal agent 47 (compound 3b) shows the highest and broad-spectrum fungicidal activity, strong respiratory inhibition activity, and adenosine 5'-triphosphate synthesis inhibition activity. Antifungal agent 47 is potential as a fungicide ^[1] .								
In Vitro	Antifungal agent 47 (compound 3b) shows antifungal activity against five phytopathogenic fungi (<i>P. capsici</i> , <i>R. solani</i> , <i>B. cinerea</i> , <i>P. aphanidermatum</i> and <i>S. sclerotiorum</i>), with EC ₅₀ values of 12.70, 21.74, 22.42, 11.00, and 4.78 μM, respectively ^[1] . Antifungal agent 47 (35 μM, 3 h) inhibits ATP production of <i>P. capsici</i> mycelium, with inhibition rate of 61.70 ± 3.64% ^[1] . Antifungal agent 47 exhibits greatly improved action on mitochondria, such as by destroying the mitochondrial function of pathogens, causing mitochondrial swelling, weakening its influence on cell wall morphology, and so on ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
In Vivo	Antifungal agent 47 (compound 3b) (200 μg/mL) shows fungicidal activity against <i>B. cinerea</i> in tomato fruits ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="1"> <tr> <td>Animal Model:</td> <td>Tomato fruits in both protective and curative modes^[1]</td> </tr> <tr> <td>Dosage:</td> <td>200 μg/mL</td> </tr> <tr> <td>Administration:</td> <td></td> </tr> <tr> <td>Result:</td> <td>Inhibited the growth of <i>B. cinerea</i> in tomato fruits. It received 59.01% control efficacy in protective mode and 53.56% control efficacy in curative mode.</td> </tr> </table>	Animal Model:	Tomato fruits in both protective and curative modes ^[1]	Dosage:	200 μg/mL	Administration:		Result:	Inhibited the growth of <i>B. cinerea</i> in tomato fruits. It received 59.01% control efficacy in protective mode and 53.56% control efficacy in curative mode.
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REFERENCES

[1]. Yin F, et al. Triphenylphosphonium-Driven Targeting of Pyrimorph Fragment Derivatives Greatly Improved Its Action on Phytopathogen Mitochondria. *J Agric Food Chem.* 2023 Feb 15;71(6):2842-2852.

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

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