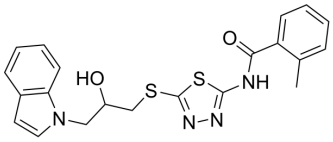
SDH-IN-14

Cat. No.:	HY-161504
Molecular Formula:	$C_{21}H_{20}N_4O_2S_2$
Molecular Weight:	424.54
Target:	Fungal; Succinate Dehydrogenase
Pathway:	Anti-infection; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	SDH-IN-14 (Compound Z2) is an inhibitor of succinate dehydrogenase (SDH). SDH-IN-14 has antifungal activity (EC_{50}=2.7 μg/mL) against B.cinerea. SDH-IN-14 acts by disrupting the integrity of the cell wall and cell membrane[1].
In Vitro	SDH-IN-14 (0-100 μg/mL; 12 h) in B.cinerea reveals that cell membrane permeability increased with increasing concentration [1]. SDH-IN-14 (0-200 μg/mL; 10 h) in B.cinerea shows an increase in MDA content with increasing concentration and oxidative damage to the cell membrane[1]. SDH-IN-14 (12.5-100 μg/mL; 24 h) in B.cinerea shows a concentration-dependent inhibition of SDH activity[1]. SDH-IN-14 shows antifungal activity of inhibition rat=96.7% (B.cinerea); 52.6% (R.solani); 69.9% (P.capsici); 59.2% (=S.sclerotiorum); 34.5% (=F.graminearum); 70.6% (Tomato Botrytis cinerea); 15.0% (=F.asiaticum), respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	SDH-IN-14 (100; 200 μg/mL) shows good antifungal activity on blueberry leaves, superior to Azoxystrobin (HY-B0849) and Fluopyram (HY-119459)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. He B, et al. Antifungal Activity of Novel Indole Derivatives Containing 1,3,4-Thiadiazole. J Agric Food Chem. 2024 May 8;72(18):10227-10235.

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