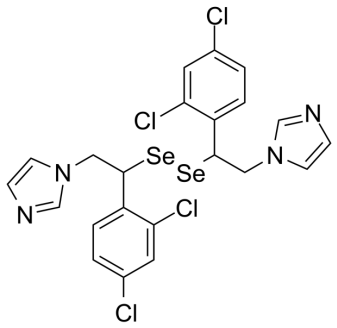
Antifungal agent 41

Cat. No.:	HY-151439
Molecular Formula:	$C_{22}H_{18}Cl_4N_4Se_2$
Molecular Weight:	638.14
Target:	Fungal
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Antifungal agent 41 (compound B01) is an antifungal agent. Antifungal agent 41 shows inhibitory effect on Candida albicans in virto and vivo. Antifungal agent 41 can be used for the research of invasive fungal infections[1].

In Vitro

Antifungal agent 41 (0.25-128 μg/mL) shows antifungal activities to C.alb, C.alb (sc5314), C.gla, C.par, C.kru, C.zey, C.neo and A.f with MIC values of 2, 1, 8, 2, 8, 0.25, 4 and 1 μg/mL, respectively[1].

Antifungal agent 41 (0-64 μg/mL; 24 h) shows antifungal activities against pathogenic fluconazole-resistant Candida albicans with MIC values of 2, 8, 4, 2 and 4 μg/mL for strain CaR, 17#, 632, 901 and 904, respectively[1].

Antifungal agent 41 (0-64 μg/mL; 24 h) shows antifungal activities against Candida albicans with MFC value of 16, 8, 16, >64, 16, 2 and 4 μg/mL for C.alb, C.alb (sc5314), strain CaR, 17#, 632, 901 and 904, respectively[1].

Antifungal agent 41 (0-1024 μg/mL; 1.5-24 h) inhibits C.alb ATCC SC5314 and CPCC400616 biofilms with $SMIC_{50}$s of 0.5 μg/mL and 0.5-4 μg/mL, with $SMIC_{80}$s of 4-32 μg/mL and 2-4 μg/mL, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	HL-60, MDA-MB-231 and PC-3 cell lines
Concentration:	0-100 μM
Incubation Time:	24 h
Result:	Inhibited growth of HL-60, MDA-MB-231 and PC-3 cells with IC_{50}s of 32.53, 6.25 and 1.43 μM, respectively.

In Vivo

Antifungal agent 4 (6-12 mg/kg; i.p. once daily for 5 days) shows in vivo antifungal effects[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Mice with C.alb ATCC SC5314 infection[1]
Dosage:	6 mg/kg and 12 mg/kg
Administration:	Intraperitoneal injection; 6 mg/kg and 12mg/kg once daily; for 5 days
Result:	Significantly reduced the kidney fungal burden of C.alb.

REFERENCES

[1]. Xu H, et al. Discovery of novel selenium-containing azole derivatives as antifungal agents by exploiting the hydrophobic cleft of CYP51. Eur J Med Chem. 2022 Aug 28;243:114707.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA