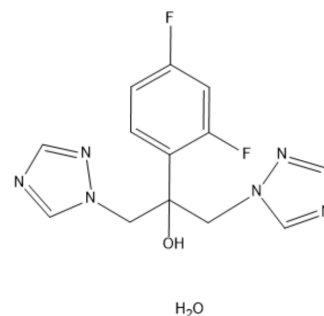


## Fluconazole hydrate

Cat. No.:	HY-B0101A
CAS No.:	155347-36-7
Molecular Formula:	C <sub>13</sub> H <sub>14</sub> F <sub>2</sub> N <sub>6</sub> O <sub>2</sub>
Molecular Weight:	324.29
Target:	Fungal; Antibiotic; Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

#### Description

Fluconazole (hydrate) is a triazole antifungal drug used in the treatment and prevention of superficial and systemic fungal infections. Target: Antifungal. Fluconazole (hydrate) is the hydrate salt form of fluconazole, which is a triazole antifungal intended for oral treatment of superficial and systemic mycoses. In tests done in standard mycological media, the compound had minimal inhibitory concentrations against pathogenic *Candida* species that were usually in excess of 100 mg/l. Fluconazole inhibited branching and hyphal development in *C. albicans* at concentrations as low as 10<sup>-6</sup> M (0.3 mg/l), but miconazole and ketoconazole were still active in these tests at concentrations 100 times lower than this [1]. Oral fluconazole was not associated with a significantly increased risk of birth defects overall or of 14 of the 15 specific birth defects of previous concern. Fluconazole exposure may confer an increased risk of tetralogy of Fallot [2]. Fluconazole is predicted to be ineffective against *Cryptococcus gattii* in the koala as a sole therapeutic agent administered at 10 mg/kg p.o. every 12 h [3]. Clinical indications: Balanitis; *Candida* infection; *Cryptococcus* infection; *Cryptococcus neoformans* meningitis; Dermatomycosis; Female genital tract infection; Fungal infection; Fungal respiratory tract infection; Fungal urinary tract infection; Prophylaxis; *Tinea capitis*; *Tinea corporis*; *Tinea cruris*; *Tinea pedis*. Toxicity: Symptoms of overdose include hallucinations and paranoid behavior.

### CUSTOMER VALIDATION

- Sci Adv. 2021 May 7;7(19):eabe5171.
- J Hazard Mater. 2021 Aug 15;416:125764.
- Environ Int. 2019 Jun;127:694-703.
- Transl Res. 2022 Apr 20;S1931-5244(22)00073-1.
- Microb Biotechnol. 2021 May 6.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

- [1]. Odds, F.C., S.L. Cheesman, and A.B. Abbott, Antifungal effects of fluconazole (UK 49858), a new triazole antifungal, in vitro. *J Antimicrob Chemother*, 1986. 18(4): p. 473-8.

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[2]. Molgaard-Nielsen, D., B. Pasternak, and A. Hviid, Use of oral fluconazole during pregnancy and the risk of birth defects. *N Engl J Med*, 2013. 369(9): p. 830-9.

[3]. Black, L.A., et al., Pharmacokinetics of fluconazole following intravenous and oral administration to koalas (*Phascolarctos cinereus*). *J Vet Pharmacol Ther*, 2013.

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

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