
Product Data Sheet

Product Name: Fluconazole hydrate

Cat. No.: GC17883

Chemical Properties

Cas. No. 155347-36-7

Chemical Name 2-(2,4-difluorophenyl)-1,3-di(1H-1,2,4-triazol-1-yl)propan-2-ol hydrate

SMILES FC1=CC(F)=C(C(CN2C=NC=N2)(O)CN3C=NC=N3)C=C1.OFormula $C_{13}H_{14}F_2N_6O_2$ M.Wt 324.29Solubility $\geq 16.35\text{mg/mL}$ in DMSO Storage Store at -20°C General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure **Background**

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^{-6} 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*

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

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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.

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.
- [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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