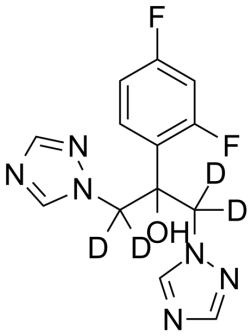
Fluconazole-d_4

Cat. No.:	HY-B0101S
CAS No.:	1124197-58-5
Molecular Formula:	$C_{13}H_8D_4F_2N_6O$
Molecular Weight:	310.3
Target:	Fungal; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	Fluconazole-d_4 is the deuterium labeled Fluconazole. Fluconazole (UK-49858) is a triazole antifungal agent with excellent activities against a broad range of fungi, especially against Candida albicans. Fluconazole inhibits C. albicans and Candida kefyr with IC99s range from 0.20 μg/mL to 0.39 μg/mL[1].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. H Yamaguchi, et al. [In vitro activity of fluconazole, a novel bistriazole antifungal agent]. Jpn J Antibiot. 1989 Jan;42(1):1-16.

[3]. M A Pfaller, et al. Interpretive breakpoints for fluconazole and Candida revisited: a blueprint for the future of antifungal susceptibility testing. Clin Microbiol Rev. 2006 Apr;19(2):435-47.

[4]. P G Sohnle, et al. Effect of fluconazole on viability of Candida albicans over extended periods of time. Antimicrob Agents Chemother. 1996 Nov;40(11):2622-5.

[5]. A Louie, et al. Pharmacodynamics of fluconazole in a murine model of systemic candidiasis. Antimicrob Agents Chemother. 1998 May;42(5):1105-9.

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