Caspofungin-d₄ acetate

Cat. No.:	HY-17006S	
Molecular Formula:	C ₅₄ H ₈₈ D ₄ N ₁₀ O ₁₇	HO CNH2
Molecular Weight:	1157.39	
Target:	Fungal; Bacterial; Antibiotic	
Pathway:	Anti-infection	
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	·

BIOLOGICAL ACTIVITY		
Description	Caspofungin-d₄ (acetate) is the deuterium labeled Caspofungin diacetate[1]. Caspofungin (MK-0991) diacetate is a potent antifungal agent. Caspofungin diacetate inhibits the synthesis of the fungal cell wall component β-(l,3)-D-glucan[2][3].	
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 Feb;53(2):211-216.

[2]. Flattery AM, et, al. Efficacy of caspofungin in a juvenile mouse model of central nervous system candidiasis. Antimicrob Agents Chemother. 2011 Jul;55(7):3491-7.

[3]. Mojumder DK, et, al. Evaluating retinal toxicity of intravitreal caspofungin in the mouse eye. Invest Ophthalmol Vis Sci. 2010 Nov;51(11):5796-803.

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

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