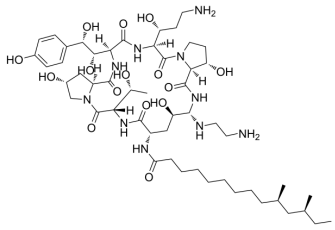
Caspofungin

Cat. No.:	HY-17006A
CAS No.:	162808-62-0
Molecular Formula:	$C_{52}H_{88}N_{10}O_{15}$
Molecular Weight:	1093.31
Target:	Antibiotic; Fungal; Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Caspofungin is a potent antifungal agent. Caspofungin inhibits the synthesis of the fungal cell wall component β-(l,3)-D-glucan[1][2].

In Vivo

Caspofungin (1-8 mg/kg; i.p.; daily, for 7 days) is able to penetrate the CNS in mice and achieve concentrations that result in the reduction of Candida burden in the brain[1].

Caspofungin (0.41-41 μM; i.p.; for 5 weeks; male C57BL/6 mice) is a safe antifungal agent at vitreal concentrations of 0.41 to 4.1 μM in mice[2].

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

Animal Model:	Complement component 5-deficient DBA/2N mice[1]
Dosage:	1, 2, 4 and 8 mg/kg
Administration:	Intraperitoneal injection; daily, for 7 days.
Result:	Reduced the concentration of Candida load in the brain.

Animal Model:	Male C57BL/6 mice[2]
Dosage:	0.41, 1.2, 2.5, 4.1, and 41 μM
Administration:	Intraperitoneal injection; for 5 weeks
Result:	Had nonsignificant alterations in their ERG waveforms from 0.41 to 4.1 μM.

CUSTOMER VALIDATION

- EMBO Rep. 2022 Apr 11;e53932.
- Cell Physiol Biochem. 2016 Aug 12;39(3):939-949.

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REFERENCES

[1]. 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.

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

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