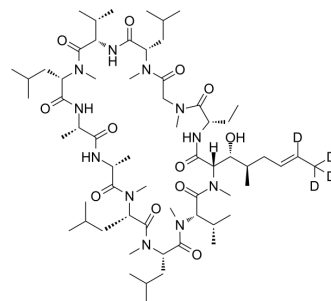


Cyclosporin A-d₄

Cat. No.:	HY-B0579S
Molecular Formula:	C ₆₂ H ₁₀₇ D ₄ N ₁₁ O ₁₂
Molecular Weight:	1206.64
Target:	Antibiotic; Complement System; Phosphatase
Pathway:	Anti-infection; Immunology/Inflammation; Metabolic Enzyme/Protease
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



BIOLOGICAL ACTIVITY

Description	Cyclosporin A-d ₄ is the deuterium labeled Cyclosporin A. Cyclosporin A (Cyclosporine A) is an immunosuppressant which binds to the cyclophilin and inhibits phosphatase activity of calcineurin with an IC ₅₀ of 5 nM. Cyclosporin A also inhibits CD11a/CD18 ad
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]. Handschumacher RE, et al. Cyclophilin: a specific cytosolic binding protein for cyclosporin A. *Science*. 1984 Nov 2;226(4674):544-7.; Liu J, et al. Calcineurin is a common target of cyclophilin-cyclosporin A and FKBP-FK506 complexes. *Cell*. 1991 Aug 23;66(4)

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

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