

Cyclosporin D

Cat. No.:	HY-W019721
CAS No.:	63775-96-2
Molecular Formula:	C ₆₃ H ₁₁₃ N ₁₁ O ₁₂
Molecular Weight:	1216.64
Sequence:	cyclo ({Aaa}-Val-{Sar}-Leu-Val-Leu-Ala-Ala-Leu-Leu-{d-Val})
Sequence Shortening:	cyclo ({Aaa}-V-{Sar}-LVLAALL-{d-Val})
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Cyclosporin D, a metabolite of Cyclosporin A, is a weak immunosuppressant. Cyclosporin D is used as internal standard for quantification of Cyclosporin A ^{[1][2]} . Cyclosporin A is a potent immunosuppressant drug, suppress T cell activation by inhibiting calcineurin and the calcineurin-dependent transcription factors nuclear factor of activated T cells (NFAT) ^[3] .
In Vitro	Cyclosporine D inhibits Ca ²⁺ /calmodulin dependent EF-2 phosphorylation in vitro ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Cyclosporine D is a potent inhibitor in vivo of phorbol ester TPA-induced biological effects in mouse skin ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Gschwendt M, et al. The weak immunosuppressant cyclosporine D as well as the immunologically inactive cyclosporine H are potent inhibitors in vivo of phorbol ester TPA-induced biological effects in mouse skin and of Ca²⁺/calmodulin dependent EF-2 phosphorylation in vitro. *Biochem Biophys Res Commun.* 1988 Jan 29;150(2):545-51.
- [2]. Kaiser P, et al. A new approach for the determination of immunosuppressive drugs using HPLC-MS/MS and Cs⁺ adducts. *Ger Med Sci.* 2006 Jan 18;4:Doc01.
- [3]. Minguillón J, et al. Concentrations of cyclosporin A and FK506 that inhibit IL-2 induction in human T cells do not affect TGF-beta1 biosynthesis, whereas higher doses of cyclosporin A trigger apoptosis and release of preformed TGF-beta1. *J Leukoc Biol.* 2005 May;77(5):748-58. Epub 2005 Feb 16.

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

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