

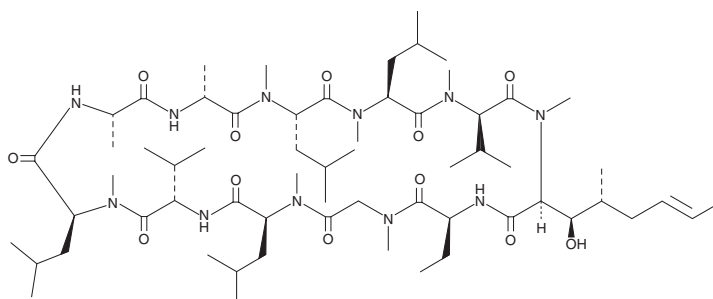
PRODUCT INFORMATION



Cyclosporin H

Item No. 17182

CAS Registry No.: 83602-39-5
Formal Name: 5-(N-methyl-D-valine)-cyclosporin A
Synonyms: 5-(N-methyl-D-valine)-Cyclosporin A,
Sandoz 37-839
MF: C₆₂H₁₁₁N₁₁O₁₂
FW: 1,202.6
Purity: ≥95%
Supplied as: A white powder
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Cyclosporin H is supplied as a white powder. A stock solution may be made by dissolving the cyclosporin H in the solvent of choice, which should be purged with an inert gas. Cyclosporin H is slightly soluble in methanol and chloroform.

Description

Cyclosporin H is a natural cyclic undecapeptide that selectively antagonizes the formyl peptide receptor at concentrations ranging from 0.1 to 10 μM.¹⁻³ Unlike cyclosporin A (Item No. 12088), cyclosporin H does not bind cyclophilin to evoke an immunosuppressant response.⁴ Cyclosporin H has been reported to inhibit phorbol ester-mediated effects in mouse skin and block calcium/calmodulin-dependent EF-2 phosphorylation *in vitro*.⁵

References

1. Wenzel-Seifert, K. and Siefert, R. Cyclosporin H is a potent and selective formyl peptide receptor antagonist. Comparison with N-t-butoxycarbonyl-L-phenylalanyl-L-leucyl-L-phenylalanyl-L-leucyl-L-phenylalanine and cyclosporins A, B, C, D, and E. *J. Immunol.* **150(10)**, 4591-4599 (1993).
2. Yan, P., Nanamori, M., Sun, M., *et al.* The immunosuppressant cyclosporin A antagonizes human formyl peptide receptor through inhibition of cognate ligand binding. *J. Immunol.* **177(10)**, 7050-7058 (2006).
3. Zhou, C., Zhou, Y., Wang, J., *et al.* V101L of human formyl peptide receptor 1 (FPR1) increases receptor affinity and augments the antagonism mediated by cyclosporins. *Biochem. J.* **451(2)**, 245-255 (2013).
4. Sherry, B., Yarlett, N., Strupp, A., *et al.* Identification of cyclophilin as a proinflammatory secretory product of lipopolysaccharide-activated macrophages. *Proc. Natl. Acad. Sci. USA* **89(8)**, 3511-3515 (1992).
5. Gschwendt, M., Kittstein, W., and Marks, F. 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.* **150(2)**, 545-551 (1988).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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