

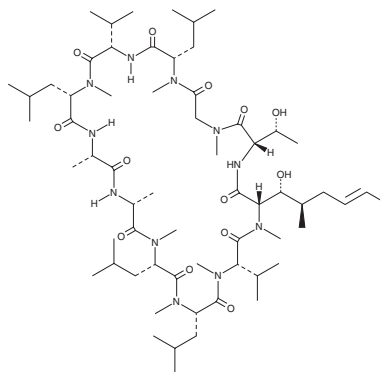
# PRODUCT INFORMATION



## Cyclosporin C

Item No. 29152

**CAS Registry No.:** 59787-61-0  
**Formal Name:** 7-L-threonine-cyclosporin A  
**MF:** C<sub>62</sub>H<sub>111</sub>N<sub>11</sub>O<sub>13</sub>  
**FW:** 1,218.6  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Fungi



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

### Laboratory Procedures

Cyclosporin C is supplied as a crystalline solid. A stock solution may be made by dissolving the cyclosporin C in the solvent of choice, which should be purged with an inert gas. Cyclosporin C is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of cyclosporin C in these solvents is approximately 14, 3, and 20 mg/ml, respectively.

Cyclosporin C is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cyclosporin C should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Cyclosporin C has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Cyclosporin C is a fungal metabolite that has been found in *T. inflatum* and has diverse biological activities, including antifungal, antiviral, and immunosuppressant properties.<sup>1-4</sup> It is active against isolates of *B. cinerea*, *A. niger*, and *Alternaria*, *Mucor*, and *Penicillium* species (MICs = 0.1-5 µg/ml).<sup>2</sup> Cyclosporin C (15 µg/ml) inhibits vaccinia virus replication in infected BSC40 cells by 98.82%.<sup>3</sup> It inhibits lymphocyte proliferation induced by the mitogens concanavalin A (ConA; Item No. 14951), phytohemagglutinin L (PHA), and pokeweed mitogen (PWM), as well as proliferation induced by alloantigen in mixed lymphocyte culture when used at a concentration of 100 ng/ml.<sup>4</sup> Cyclosporin C (100 ng/ml) inhibits the local graft versus host (GVH) reaction in mice receiving splenocyte grafts.

### References

1. von Wartburg, A. and Traber, R. Cyclosporins, fungal metabolites with immunosuppressive activities. *Prog. Med. Chem.* **25**, 1-33 (1988).
2. Moussaïf, M., Jacques, P., Schaarwächter, P., et al. Cyclosporin C is the main antifungal compound produced by *Acremonium luzulae*. *Appl. Environ. Microbiol.* **63(5)**, 1739-1743 (1997).
3. Damaso, C.R. and Moussatché, N. Inhibition of vaccinia virus replication by cyclosporin A analogues correlates with their affinity for cellular cyclophilins. *J. Gen. Virol.* **79(Pt 2)**, 339-346 (1998).
4. Sadeg, N., Pham-Huy, C., Rucay, P., et al. *In vitro* and *in vivo* comparative studies on immunosuppressive properties of cyclosporines A, C, D and metabolites M1, M17 and M21. *Immunopharmacol. Immunotoxicol.* **15(2-3)**, 163-177 (1993).

#### 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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