

Native *B. nivea* Cyclosporine-A

Catalog No.	CRC171A	Quantity:	1 g
	CRC171B		4 g
	CRC171C		100 g

Description: Cyclosporin A is a noncytotoxic, natural, 11 amino acid cyclic peptide used clinically as an immunosuppressant for the treatment of autoimmune and inflammatory disorders and to prevent organ rejection after transplantation. Cyclosporin acts chiefly by inhibiting T lymphocyte function, which is vital for the propagation of inflammation. Cyclosporin A does not suppress the activity of other hematopoietic cells, does not cause bone marrow suppression and has a rapid onset of action as opposed to other immunosuppressive agents. Nevertheless, Cyclosporin A -induced nephrotoxicity remains an important clinical problem, and oxidative stress has been implicated as a potential responsible mechanism.

Cyclosporine is a cyclic polypeptide immunosuppressant agent consisting of 11 amino acids. It is produced as a metabolite by the fungus species *Beauveria nivea*. Chemically, cyclosporine is designated as [R-[R*,R*-(E)]]-cyclic(L-alanyl-D- alanyl-N-methyl-L-leucyl-N-methyl-L-leucyl-N-methyl-L-valyl-3-hydroxy-N, 4-dimethyl-L-2-amino-6-octenoyl-L- α -amino-butyryl- N-methylglycyl-N- methyl-L-leucyl-L-valyl-N-methyl-L-leucyl). Molecular Formula: C₆₂H₁₁₁N₁₁O₁₂.

Source: *Beauveria nivea*

Molecular Weight: 1,202.64 Da

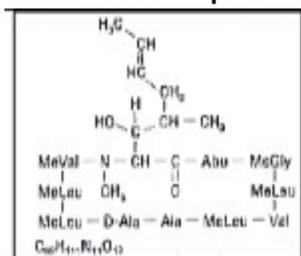
Formulation: Lyophilized from a sterile filtered solution without additives

Purity: >98% as determined by RP-HPLC and Mass Spectral analyses (MALDI-TOF exhibits correct MW).

Reconstitution: **Centrifuge vial prior to opening.** First add sterile distilled water to the vial to fully solubilize the protein to a concentration not less than 100 μ g/ml. After complete solubilization of the protein, it can be further diluted to other aqueous solutions.

Storage & Stability: Store lyophilized protein at -20°C to -80°C. Reconstituted protein is stable for 1 week at 2-4°C. For long term storage, aliquot and store at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.**

Amino Acid Sequence:



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