

## Native *B. nivea* Cyclosporine-A

<b>Catalog No.</b>	CRC171A	<b>Quantity:</b>	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- $\alpha$ -amino-butyryl- N-methylglycyl-N- methyl-L-leucyl-L-valyl-N-methyl-L-leucyl). Molecular Formula: C<sub>62</sub>H<sub>111</sub>N<sub>11</sub>O<sub>12</sub>.

**Source:** *Beauveria nivea*

**Molecular Weight:** 1,202.64 Da

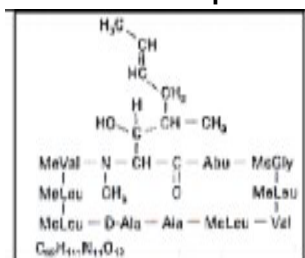
**Formulation:** Lyophilized from a sterile filtered solution without additives

**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  $\mu$ 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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