

Cyclosporine-A - Purified

Catalog No.: AR10741PU-S

Quantity: 1 g

Background: Cyclosporine 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. Cyclosporine acts chiefly by inhibiting T lymphocyte function, which is vital for the propagation of inflammation. Cyclosporine 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, Cyclosporine A -induced nephrotoxicity remains an important clinical problem, and oxidative stress has been implicated as a potential responsible mechanism.

Source: Beauveria nlyea

Format: **State:** Sterile Filtered White lyophilized (freeze-dried) powder
Purity: > 98.0% as determined by both RP-HPLC and Mass Spectral Analysis {MALDI-TOF exhibits correct Mw}
Buffer System: Lyophilized from a concentrated (1 mg/ml) solution with no additives
Reconstitution: Restore in sterile 18MΩ-cm⁻¹ H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions

Description: Cyclosporine is a cyclic polypeptide immunosuppressant agent consisting of 11 amino acids and having a Molecular Weight of 1202.64. It is produced as a metabolite by the fungus species Beauveria nlyea.

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-butyl-N-methylglycyl-N-methyl-L-leucyl-L-valyl-N-methyl-L-leucyl).

Molecular formula: C₆₂H₁₁₁N₁₁O₁₂

Storage: Prior to reconstitution store at 2-8°C for one month or desiccated below -18°C. Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.