

32-2086: Thymosin α 1 Protein

Description

Source : Thymosin α 1 acetate, also known as thymalfasin has immunoregulatory properties enhancing immune functions. Thymosin α 1 has a molecular formula of C₁₂₉H₂₁₅N₃₃O₅₅ a.a. sequence of Ac-Ser-Asp-Ala-Ala-Val-Asp-Thr-Ser-Ser-Glu-Ile-Thr-Thr-Lys-Asp-Leu-Lys-Glu-Lys-Lys-Glu-Val-Val-Glu-Glu-Ala-Glu-Asn-OH and having a Mw of 3108.32 Dalton. Thymalfasin is a synthetic analogue of thymosin- α -1, a 28-amino acid protein derived from the precursor protein prothymosin- α . Exhibiting a variety of immunoregulating properties, thymosin- α -1 induces differentiation of murine T-cell precursors and human thymocytes and the terminal differentiation of functionally immature cord blood lymphocytes and induces production of IL-2, high affinity IL-2 receptors, and B-cell growth factors by peripheral blood mononuclear cells. T-helper and cytotoxic/suppressor T-cell populations are targets of thymosin activity. Thymosin- α -1 has been shown to increase the efficiency of antigen presentation by macrophages and to be an endogenous modulator of α -thrombin activity.

Product Info

Amount :	5 mg
Purification :	Greater than 99.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.
Content :	The protein (1 mg/ml) was lyophilized with no additives.
Storage condition :	Lyophilized Thymosin α 1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Thymalfasin should be stored at 4°C between 2-7 days and for future use below -18°C.For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Application Note

It is recommended to reconstitute the lyophilized Thymosin α 1 in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.