PTMA
Synthetic PTMA/Thymosin-alpha 1/Thymalfasin

Catalog No.	CSI14936	**Quantity:**	1.0 mg
	CSI14937		5 mg
	CSI14938		25 mg

Alternate Names: TMSA

Description: Thymalfasin is a synthetic analogue of thymosin-alpha-1, a 28-amino acid protein derived from the precursor protein prothymosin-alpha. Exhibiting a variety of immunoregulating properties, thymosin-alpha-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-alpha-1 has been shown to increase the efficiency of antigen presentation by macrophages and to be an endogenous modulator of alpha-thrombin activity.
Thymosin a1 acetate, also known as thymalfasin has immunoregulatory properties enhancing immune functions.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder

Molecular Formula: Thymosin a1 has a molecular formula of $C_{129}H_{215}N_{33}O_{55}$

Molecular Mass: 3108.32 Dalton

Formulation: The protein (1 mg/ml) was lyophilized with no additives.

Purity: Greater than 99.0% as determined by
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Amino Acid Sequence: 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

Reconstitution: It is recommended to reconstitute the lyophilized Thymosin a1 in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Storage & Stability: Lyophilized Thymosin a1 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.

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