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## Product Data Sheet

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Product Name: Thymosin  $\alpha$ 1

Cat. No.: GP21312

Batch No.: 1

### Product Data

Purity >98%

Source

Physical  
Appearance solid

Shipping  
Condition Shipped at Room temp.

Solubility It is recommended to reconstitute the lyophilized Thymosin  $\alpha$ 1 in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

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

### Introduction

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.

### Stability

Lyophilized Thymosin  $\alpha$ 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.

### Background

Thymosin  $\alpha$ 1 acetate, also known as thymalfasin has immunoregulatory properties enhancing immune functions. Thymosin  $\alpha$ 1 has a molecular formula of

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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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.

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