



# LKT Laboratories, Inc.

## Serum Thymic Factor

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### Product Information

Product ID S1970

CAS No. 63958-90-7

**Chemical Name**

Synonym STF, Thymulin

Formula  $C_{33}H_{54}N_{12}O_{15}$

Formula Wt. 858.89

Melting Point

Purity  $\geq 95\%$

Solubility Soluble in water.

Store Temp  $-20^{\circ}C$

Ship Temp Ambient

**Description**

Serum thymic factor (FTS) is a synthetic nonapeptide hormone that exhibits anti-apoptotic, anti-diabetic, anti-inflammatory, and immunomodulatory activities. In vivo, FTS increases activity of superoxide dismutase (SOD) and decreases activation of ERK, inhibiting cephaloridine-induced kidney damage and dysfunction. In other animal models, FTS increases expression of Bcl-2 and IL-6, preventing LPS-induced damage to pancreatic cells. FTS also suppresses the symptoms of experimental autoimmune encephalitis (EAE) in animal models. In vitro, this peptide increases T cell differentiation and activates T cells and NK cells. In vivo, FTS prevents the viral induction of diabetes, preventing loss of insulin granules, myocardial inflammation, and pancreatic islet cell necrosis.

**References**

- Kohda Y, Matsunaga Y, Yonogi K, et al. Protective effect of serum thymic factor, FTS, on cephaloridine-induced nephrotoxicity in rats. *Biol Pharm Bull.* 2005 Nov;28(11):2087-91. PMID: 16272694.
- Saitoh N, Awaya A, Sakudo A, et al. Serum thymic factor prevents LPS-induced pancreatic cell damage in mice via up-regulation of Bcl-2 expression in pancreas. *Microbiol Immunol.* 2004;48(9):629-38. PMID: 15383698.
- Mizutani M, El-Fotouh M, Mori M, et al. In vivo administration of serum thymic factor (FTS) prevents EMC-D virus-induced diabetes and myocarditis in BALB/CAJcl mice. *Arch Virol.* 1996;141(1):73-83. PMID: 8629952.
- Kato S, Nakamura H. Suppression of acute experimental allergic encephalomyelitis by synthetic serum thymic factor. Clinical, histopathological, and immunohistochemical studies. *Acta Neuropathol.* 1988;75(4):337-44. PMID: 2834909.
- Kaiserlian D, Bardos P, Bach JF. In vitro modulation of mouse natural killer (NK) cell activity by the serum thymic factor (FTS). *Cell Immunol.* 1983 Mar;76(2):232-42. PMID: 6682352.

pGlu-Ala-Lys-Ser-Gln-Gly-Gly-Ser-Asn-OH

### Pricing and Availability

*Bulk quantities available upon request*

Product ID	Size	List Price
S1970	1 mg	\$63.00
S1970	2 mg	\$107.00
S1970	5 mg	\$189.00

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.