Thymosin alpha 1

CATALOG NO: P1069-1000 1 mg
P1069-5000  5 mg

ALTERNATE NAMES: Prothymosin alpha, PTMA, TMSA

PURITY: > 99% by HPLC

MOL. WEIGHT: 3.1 kDa

ENDOTOXIN LEVEL: < 1.0 EU/mg

FORM: White or off-white osteoporosis powder

SOLUBILITY: It is recommended to reconstitute the lyophilized Thymosin alpha 1 in Trifluoro acetic acid. It is slightly soluble in water.

STORAGE CONDITIONS: Lyophilized protein can be stored at 4°C. Reconstituted Thymosin alpha 1 should be stored at working aliquots at -20°C.

SEQUENCE: Thymosin α1 has a molecular formula of C₁₂₉H₂₁₅N₃₃O₅₅. Amino acid sequence of Ac-Ser-Asp-Ala-Ala-Val-Asp-Thr-Ser-Ser-Glu-Ile-Thr-Thr-Lys-Asp-Leu-Lys-Lys-Glu-Val-Val-Glu-Ala-Glu Asn-OH

DESCRIPTION: Thymosin α1 is a peptide fragment derived from prothymosin alpha, a protein that in humans is encoded by the PTMA gene. Thymosin α1 is believed to be a major component of Thymosin Fraction 5 responsible for the activity of that preparation in restoring immune function in animals lacking thymus glands. It was the first of the peptides from Thymosin Fraction 5 to be completely sequenced and synthesized. Unlike β thymosins, to which it is genetically and chemically unrelated, thymosin α1 is produced as a 28-amino acid fragment, from a longer, 113-amino acid precursor, prothymosin α. It has been found to enhance cell-mediated immunity in humans as well as experimental animals.

FOR RESEARCH USE ONLY! Not to be used on humans.