

Product Data Sheet

Cat # RP-1477

Thymopentin

**Size:** 25 mg

Thymopentin, also known as TP-5, is a synthetic pentapeptide which is the active site of the naturally occurring hormone thymopoietin with immunomodulating properties (corresponding to the amino acids 32-36 of thymopoietin). Thymopentin enhances the production of thymic T cells and may help restore immunocompetence in immunosuppressed subjects. This agent also augments the effects of ionizing radiation by arresting cancer cells in the G2/M phase of the cell cycle.

**Source:** Thymopentin has a molecular formula of  $C_{30}H_{49}N_9O_9$ , H-Arg-Lys-Asp-Val-Tyr-OH having a Mw of 679.8 Dalton. The protein (1 mg/ml) was lyophilized with no additives.

**Applications and Suggested Dilutions:** It is recommended to reconstitute the lyophilized Thymopentin in sterile 18MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. Greater than 99.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

**Storage and Stability:** Lyophilized Thymopentin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TP-5 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. If supplied in powder then reconstitute it in 100 µl water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

**Usage:**

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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