



Genemed Synthesis, Inc.
6203 Wood Lake Center Dr., Bldg. 2, San Antonio, TX 78244, USA
Toll free (800) 344-5337; Phone: (210) 745-5988; Fax (210) 745-5992
Email: info@genemedsyn.com, Website: www.genemedsyn.com

Product Data Sheet

Cat # SB-010-10	Recombinant Human Parathyroid Hormone (PTH1-84)	Size: 10 ug
Cat # SB-010-50	Recombinant Human Parathyroid Hormone (PTH1-84)	Size: 50 ug

Background:

Parathyroid hormone is the most important endocrine regulator of calcium and phosphorus concentration in extracellular fluid. This hormone is secreted from cells of the parathyroid glands and finds its major target cells in bone and kidney. Another hormone, parathyroid hormone-related protein, binds to the same receptor as parathyroid hormone and has major effects on development. Like most other protein hormones, parathyroid hormone is synthesized as a prohormone. After intracellular processing, the mature hormone is packaged within the Golgi into secretory vesicles, the secreted into blood by exocytosis. Parathyroid hormone is secreted as a linear protein of 84 amino acids.

Description:

Recombinant Human PTH produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 84 amino acids and having a molecular mass of 9 kDa.

Quality Control:

Biological Activity: rHuPTH is fully biologically active when compared to standards. The activity calculated by UMR106 cell/cAMP method corresponding to a specific activity of 1.0×10^4 IU/mg.

Purity: Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.
- (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

Endotoxin: Less than 0.1 ng/ μ g (IEU/ μ g) of rHuPTH.

Formulation: The protein (1mg/ml) was lyophilized after extensive dialyses against 1.15mg sodium citrate, 7.31mg sodium chloride, 0.21mg citric acid, 0.1117 EDTA-Na₂, 0.2mg Tween 80 and 50mg Mannitol.

Storage: Lyophilized rHuPTH although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuPTH 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 avoid freeze-thaw cycles.

Reconstitution: It is recommended to reconstitute the lyophilized rHuPTH in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions

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. If supplied in powder then reconstitute it in 100 μ l 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..

Rev. 80225F