

DATASHEET

Version 20181206

PTH (1-84aa), Human**Cat. No.:** Z02021-1**Size:** 1.0 mg**Synonyms:** PTH;**Description:**

Parathyroid Hormone (PTH) is the most important endocrine regulator of calcium and phosphorus concentration in extracellular fluid. Parathyroid Hormone (PTH) is secreted from cells of the parathyroid glands and finds Parathyroid Hormone's major target cells in bone and kidney. Like most other protein hormones, Parathyroid Hormone (PTH) is synthesized as a prehormone. After intracellular processing, the mature hormone is packaged within the Golgi into secretory vesicles, the secreted into blood by exocytosis. Parathyroid Hormone (PTH) is secreted as a linear protein of 84 amino acids. Recombinant Human Parathyroid Hormone (PTH) produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 84 amino acids and having a molecular mass of 9,000 Da.

Source: *E. coli***Species:** Human

Biological Activity: PTH 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 U/mg.

Molecular Weight: 9,000 Da

Formulation: The protein (1 mg/ml) was lyophilized after extensive dialyses against 1.15 mg sodium citrate, sodium chloride 7.31 mg, 0.21 mg citric acid, 0.1117 mg EDTA- Na_2 , 0.2 mg Tween 80 and 50 mg Mannitol.

Reconstitution: It is recommended to reconstitute the lyophilized PTH in sterile 18 M Ω -cm H_2O not less than 100 $\mu\text{g/ml}$, which can then be further diluted to other aqueous solutions.

Purity: Greater than 98.0% as determined by:

1. Analysis by RP-HPLC
2. Anion-exchange FPLC
3. Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel

Endotoxin Level: Less than 0.1 ng/ μg (1 EU/ μg) of Parathyroid Hormone (PTH) .

Storage: Lyophilized Human Parathyroid Hormone (PTH) remains stable at room temperature for three weeks, but it is best stored desiccated below -18°C. Upon reconstitution Human Parathyroid Hormone (PTH) should be stored at 4°C for up to seven days. For long term storage it is recommended that a carrier protein (0.1% HSA or BSA) be added. Avoid repeated freeze-thaw cycles.