

Parathyroid Hormone 7-34

Human, Recombinant (rHuPTH7-34)

Expressed in *E. coli*

Cat. No. CRP0865

Lot. No. (See product label)

PRODUCT INFORMATION

Description: Polypeptide hormones secreted by the parathyroid glands, which promote release of calcium from bone to extracellular fluid by activating osteoblasts and inhibiting osteoclasts, indirectly promote increased intestinal absorption of calcium, and promote renal tubular reabsorption of calcium and increased renal excretion of phosphates. It is a major regulator of bone metabolism. Secretion of parathyroid hormone increases when the level of calcium in the extracellular fluid is low. Its action is opposed by calcitonin.

PTH (7-34), which is a PTH/PTHrP receptor antagonist, can stimulate hair growth and epidermal proliferation in mice.

Amino-Acid Sequence: 28aa , non-glycosylated

M. W. : 3,380Da

Recombinant: Expressed in *E. coli*

Purity: >97% as determined by SDS-PAGE and HPLC.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

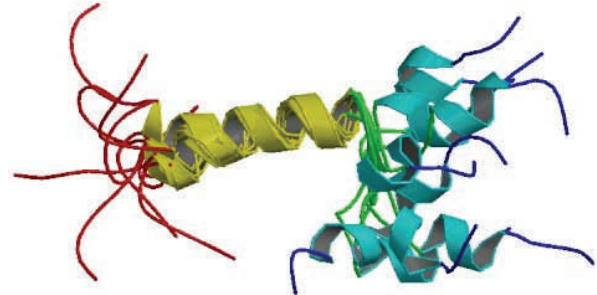
Formulation: Lyophilized from a 0.2mm filtered concentrated (1mg/ml) solution in 20mMPB, pH7.0, containing 4% mannitol.

Specific Activity: Fully biologically active when compared to standard. The activity calculated by UMR106 cell/cAMP method corresponding to a specific activity of 1.0×10^4 Units/mg.

Endotoxin: Less than 1EU/mg of rHuPTH7-34 as determined by LAL method.

Reconstitution: Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq 20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.



[PDB](#) rendering based on 1bwx.

GENE INFORMATION

Gene Name: [PTH](#)

Synonyms: parathormone; parathyrin; Parathyroid hormone precursor; parathyroid hormone

mRNA Refseq: [NM_000315](#)

Protein Refseq: [NP_000306](#)

MIM: [168450](#)

GeneID: [5741](#)

Chromosome Location: 11p15.3-p15.1

Pathway: Neuroactive ligand-receptor interaction

Function: hormone activity; parathyroid hormone receptor binding activity

REFERENCES

1. Poole K, Reeve J. Parathyroid hormone - a bone anabolic and catabolic agent. *Curr Opin Pharmacol.* 2005; 5 (6): 612-617
2. Pawlotsky Y, et al. Elevated parathyroid hormone 44-68 in idiopathic calcium pyrophosphate dihydrate crystal deposition disease. Role of menopause and iron metabolism? *J Rheumatol.* 2008 Feb;35(2):315-318
3. Zadrozna-Sliwka B, et al. The role of cyclase activating (CAP) and cyclase inhibiting (CIP) parathormone fractions in the assessment of bone metabolism disturbances in women with hyperprolactinemia of various origin. *Neuro Endocrinol Lett.* 2008 Feb; 29(1):178-184

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