

PTH

Recombinant Human Parathyroid Hormone aa1-84 Nitrogen-15

Catalog No.	CRH223A	Quantity:	10 µg
	CRH223B		50 µg
	CRH223C		1 mg

Alternate Names: Parathormone, Parathyrin, PTH1

Description: Recombinant Human Parathyroid Hormone aa1-84 nitrogen-15 is a single, ¹⁵N stable isotope labeled, non-glycosylated polypeptide chain containing 84 amino acids. Parathyroid hormone (PTH) is a single polypeptide of 84 amino acids. It is a critical hormone in the regulation of Ca²⁺ homeostasis and 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.

Gene ID: 5741

Molecular Weight: 9.55 kDa

Formulation: Lyophilized from a 0.2 µm sterile filtered concentrated solution in PBS, pH 7.4.

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

Endotoxin Level: <1 EU/µg as determined by LAL.

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ as determined by its ability to induce cAMP accumulation in mouse MC3T3E1 cells is <50 ng/ml.

Specific Activity: >2.0 × 10⁴ IU/mg

Amino Acid Sequence: SVSEIQLMHN LGKHLNSMER VEWLRKKLQD VHNFVALGAP LAPRDAGSQR PRKKEDNVLV ESHEKSLGEA DKADVNVLTAKSQ

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: The lyophilized protein is stable at 2-8°C. Upon receipt, store desiccated at -20°C. After 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 -80°C. For long term storage of reconstituted protein, it is recommended that a carrier protein such as 0.1% BSA or HSA be added. This depends on the particular application. **Avoid repeated freeze/thaw cycles.**

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