



Technical Data Sheet

Recombinant Human Parathyroid Hormone 1-84, ¹⁵N Stable Isotope Labeled (rHuPTH1-84, ¹⁵N)

Human Parathyroid Hormone 1-84

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.

Catalog Number:	RC412-16N
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 9.4 kDa, a single non-glycosylated polypeptide chain containing 84 amino acids. ¹⁵ N stable isotope labeled.
Quantity:	10µg/50µg/1000µg
AA Sequence:	SVSEIQLMHN LGKHLNSMER VEWLRKKLQD VHNFVALGAP LAPRDAGSQ PRKKEDNVLV ESHEKSLGEA DKADVNVLTAKSQ
Purity:	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by its ability to induce cAMP accumulation in murine MC3T3E1 cells is less than 50 ng/ml, corresponding to a specific activity of > 2.0 × 10 ⁴ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 1 EU/µg of rHuPTH1-84, ¹⁵ N as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. 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 ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable 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



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Usage:

reconstituted preparation into working aliquots and store at $-20\text{ }^{\circ}\text{C}$ to $-70\text{ }^{\circ}\text{C}$.
Avoid repeated freeze/thaw cycles.

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