

# Recombinant Human PTH, 28 a.a.

Catalog # FL160

## Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 98% by SDS-PAGE or HPLC.
Endotoxin	< 0.1 EU/μg of rHuPTH7-34 protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Human
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The specific activity is determined by UMR10 <sup>6</sup> cell/cAMP method, corresponding to a specific activity of $\geq 1.0 \times 10^4$ IU/mg.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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.
Accession #	P01270 Leu38-Phe65
Amino acid sequence	LMHNLGKHLNSMERVEWLRKKLQDVHNF
Molecular weight	Approximately 3.4 kDa, a single non-glycosylated polypeptide chain containing 28 amino acids.
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$ . Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, $-20$ to $-70^\circ\text{C}$ as supplied. 1 month, 2 to $8^\circ\text{C}$ under sterile conditions after reconstitution. 3 months, $-20$ to $-70^\circ\text{C}$ under sterile conditions after reconstitution.
Precautions	Recombinant Human PTH, 28 a.a. is for research use only and not for use in diagnostic or therapeutic procedures.

## Background

Parathyroid hormone (PTH) is a single polypeptide of 84 amino acids. PTH is a critical hormone in the regulation of  $\text{Ca}^{2+}$  homeostasis. PTH is 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. PTH (7-34), which is a PTH/PTHrP receptor antagonist, can stimulate hair growth and epidermal proliferation in mice. Recombinant PTH7-34 is a 3.4kDa protein containing 28 amino acid residues.

