Recombinant Human Parathyroid Hormone 1-34

#R00471

Size: 100 μg/500 μg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Parathyroid hormone (PTH) is a single polypeptide of 84 amino acids. PTH is a critical hormone in the regulation of Ca2+ 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.The amino terminal (1-34) fragment of parathyroid hormone, called PTH (1-34) reproduces all the activity of the full length mature hormone and has been used therapeutically for treatment of osteoporosis.

AA Sequence

SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHNF

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.

Product Specification

Synonyms	Parathormone, Parathyrin
Accession	P01270
GeneID	5741
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 4.1 kDa, a single non-glycosylated polypeptide chain containing 34 amino acids.
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 7.0.
Endotoxin	Less than 1 EU/μg of rHuPTH1-34 as determined by LAL method.