Recombinant Human PTH
Catalog # CB42
Derived from Human Cells

DESCRIPTION
Recombinant Human Parathyroid Hormone is produced by our Mammalian expression system and the target gene encoding Ser32-Gln115 is expressed with a 8His tag at the N-terminus.
Accession #: P01270
Known as: Parathyroid hormone; PTH; Parathormone; Parathyrin; PTH

FORMULATION
Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4.

SHIPPING
The product is shipped at ambient temperature.
Upon receipt, store it immediately at the temperature listed below.

STORAGE
Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks.
Reconstituted protein solution can be stored at 4-7°C for 2-7 days.
Aliquots of reconstituted samples are stable at < -20°C for 3 months.

RECONSTITUTION
Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
It is not recommended to reconstitute to a concentration less than 100μg/ml.
Dissolve the lyophilized protein in distilled water.
Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

QUALITY CONTROL
Purity: Greater than 95% as determined by reducing SDS-PAGE.
Endotoxin: Less than 0.1 ng/μg (1 IEU/μg).

AMINO ACID SEQUENCE
HHHHHHHHSVSEIQLMHNLGKHLNSMERVEWLKKLQDVHNFVLAGAPLAPRDAGSRPRKKEDNVLVESHEKLGEADKADVNVLTKAKSQ

BACKGROUND
Parathyroid hormone (PTH) is a critical hormone in the regulation of Ca++ homeostasis. Parathyroid hormone is the most important endocrine regulator of calcium and phosphorus concentration in extracellular fluid. This hormone is secreted from cells of the parathyroid glands and finds its major target cells in bone and kidney. Another hormone, parathyroid hormone-related protein, binds to the same receptor as parathyroid hormone and has major effects on development. Like most other protein hormones, parathyroid hormone is synthesized as a preprohormone. After intracellular processing, the mature hormone is packaged with in the Golgi into secretory vesicles, the secreted into blood by exocytosis. In renal epithelium, PTH promotes conversion of Vitamin D to its active form, lowers Ca++ excretion and increases phosphate excretion. PTH also increases hematopoietic stem cell proliferation and mobilization and induces arterial vasodilation by regulating Ca++ influx in PTH1R-expressing arterial smooth muscle.