Recombinant Human Parathyroid Hormone/PTH Protein (His Tag)

Catalog Number: PKSH033570

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

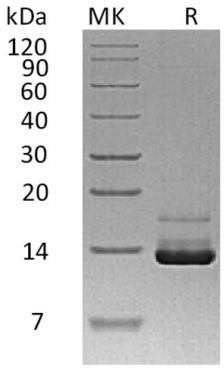
Description

Species	Human
Source	HEK293 Cells-derived Human PTH protein Ser32-Gln115, with an N-terminal His
Calculated MW	10.5 kDa
Observed MW	13 kDa
Accession	P01270
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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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.