Recombinant Protein Technical Manual

Recombinant Human Parathyroid Hormone/PTH Protein (His Tag)

RPES0612

Product Data:

Product SKU: RPES0612

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: P01270

Protein Information:

Molecular Mass: 10.5 kDa

AP Molecular Mass: 13 kDa

Tag: N-His

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

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.

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, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Parathyroid Hormone; PTH; Parathormone; Parathyrin;PTH1

Immunogen Information:

Sequence: Ser32-Gln115

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.