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PTH

Catalog # PVGS1088

Product Information

Primary Accession	P01270
Species	Human
Sequence	Ser32-Phe65
Purity	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
Endotoxin Level	
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 50.0 ng/ml, corresponding to a specific activity of > 2.0×10^4 IU/mg.
Expression System	E. coli
Theoretical Molecular Weight	4.1 kDa
Formulation	Lyophilized from a 0.2 □m filtered solution in PBS, pH 7.0.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	5741
Other Names	Parathyroid hormone, PTH, Parathormone, Parathyrin, PTH
Target Background	Polypeptide hormones 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. Its action is opposed by calcitonin.

Protein Information

Name	PTH {ECO:0000303|PubMed:35932760, ECO:0000312|HGNC:HGNC:9606}
Function	Parathyroid hormone elevates calcium level by dissolving the salts in bone and preventing their renal excretion (PubMed:11604398, PubMed:35932760). Acts by binding to its receptor, PTH1R, activating G protein-coupled receptor signaling (PubMed:18375760, PubMed:35932760). Stimulates [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblastic cells (PubMed:21076856).
Cellular Location	Secreted