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PTH

Catalog # PVGS1088

Specification

PTH - Product Information

Primary Accession P01270

Species
Human

Sequence
Ser32-Phe65

Purity
> 97% as analyzed by SDS-PAGE
> 97% as analyzed by HPLC

Endotoxin Level
< 1 EU/ µg of protein by LAL method

Biological Activity
Fully biologically active when compared to standard. The ED₅₀ 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 × 10⁴ IU/mg.

Expression System
E. coli

Theoretical Molecular Weight
4.1 kDa

Formulation **Lyophilized from a 0.2 µm 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.

PTH - 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.

PTH - 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

PTH - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PTH - Images