Recombinant Rat I-PTH Protein(Trx Tag)

Catalog Number: PDER100658

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

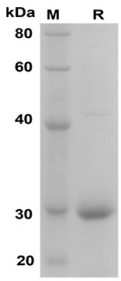
Description

Species	Rat
Source	E.coli-derived Rat I-PTH protein Ala32-Gln115, with an N-terminal Trx
Calculated MW	29.2 kDa
Observed MW	30 kDa
Accession	P04089
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg 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 in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Rat I-PTH proteins, 2μg/lane of Recombinant Rat I-PTH proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 30 KD

Background

Parathyroid hormone (PTH), parathormone or parathyrin, is secreted by the chief cells of the parathyroid glands as a polypeptide. PTH elevates calcium level by dissolving the salts in bone and preventing their renal excretion. Parathyroid hormone (PTH) has been proved to play a pivotal role in maintaining myocardial contractility as well as effective natriuresis, and possible pathogenic mechanisms contributing to heart failure secondary to hypocalcemia and hypoparathyroidism. With the increased population of preosteoblastic lineages and the osteoblastic activation, Parathyroid hormone (PTH) drives anabolism in bone. Experiments have recently reported that PTH affects bone cells in a dual pathway - mediating osteoblastic (preosteoblastic) activities or osteocytic synthesis of sclerostin. Defects in PTH are a cause of familial isolated hypoparathyroidism (FIH), also called autosomal dominant hypoparathyroidism or autosomal dominant hypocalcemia. FIH is characterized by hypocalcemia and hyperphosphatemia due to inadequate secretion of parathyroid hormone. Symptoms are seizures, tetany and cramps.