

Recombinant Human PTH1R Protein

Catalog No.: RP01369 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	5745	Q03431

Tags

C-His

Synonyms

PTH1R;PFE;PTHR;PTHR1

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
19.48 kDa	25-40 kDa

Endotoxin

<0.1EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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Background

Parathyroid hormone / parathyroid hormone-related peptide receptor, also known as PTH / PTHrP type I receptor, PTH/PTHr receptor, Parathyroid hormone 1 receptor, PTH1 receptor, PTH1R and PTHR, is a multi-pass membrane protein which belongs to the G-protein coupled receptor 2 family. PTH1R is expressed in most tissues. It is most abundant in kidney, bone and liver. PTH1R is expressed in high levels in bone and kidney and regulates calcium ion homeostasis through activation of adenylate cyclase and phospholipase C. In bone, PTH1R is expressed on the surface of osteoblasts. When the receptor is activated, these cells in turn stimulate osteoclasts to ultimately increase the resorption rate. PTH1R is a receptor for parathyroid hormone and for parathyroid hormone-related peptide. The activity of PTH1R is mediated by G proteins which activate adenylyl cyclase and also a phosphatidylinositol-calcium second messenger system. Defects in PTH1R are the cause of Jansen metaphyseal chondrodysplasia (JMC), chondrodysplasia Blomstrand type (BOCD), enchondromatosis multiple (ENCHOM), Eiken skeletal dysplasia (EISD) and primary failure of tooth eruption (PFE).

Basic Information

Description

Recombinant Human PTH1R Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asp27-Gly188) of human PTH1R/PTHR/PTHR1 (Accession #NP_000307.1.) fused with a 6xHis tag at the C-terminus.

Bio-Activity

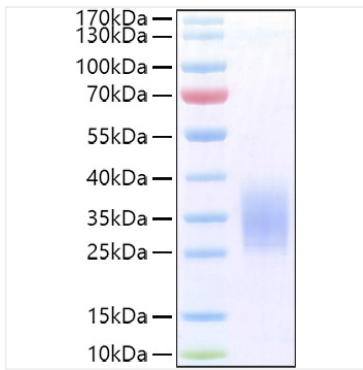
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

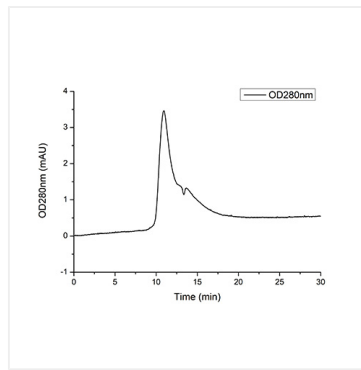
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human PTH1R Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 27-38kDa.



The purity of Human PTH1R/PTHR/PTHR1 Protein (Cat.RP01369) was greater than 95% as determined by SEC-HPLC.