

Screening Libraries

Proteins

PTH1R Protein, Human (HEK293, His)

Cat. No.: HY-P71244

Synonyms: Parathyroid hormone/parathyroid hormone-related peptide receptor; PTH/PTHrP type I

receptor; PTH/PTHr receptor; Parathyroid hormone 1 receptor; PTH1 receptor; PTH1R

Human Species: Source: **HEK293**

Accession: Q03431 (Y23-M189)

Gene ID: 5745

Molecular Weight: 25-35 kDa

PROPERTIES

AA Sequence

YALVDADDVM MESDKGWTSA

TKEEQIFLLH RAQAQCEKRL STSGKPRKDK ASGKLYPESE

DHILCWPLGA

SWELVPGHNR

PGEVVAVPCP TWANYSECVK KEVLQRPASI EDKEAPTGSR

Product Data Sheet

DYIYDFNHKG FLTNETRERE

VFDRLGM

YRGRPCLPEW

HAYRRCDRNG

Biological Activity

Measured by its binding ability in a functional ELISA. When Recombinant Human PTH1R is used at 2 μg/mL, the concentration of biotinylated human PTHrP that produces 50% of the optimal binding response is found to 84.57 ng/mL.

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

PTH1R belongs to the secretin class of G protein coupled receptors (GPCRs). PTH1R is involved in bone development and bone cell differentiation, and normally activated by parathyroid hormone (PTH) and parathyroid hormone-related peptide (PTHrP).

PTH1R that is mainly expressed in cells of the osteoblastic lineage MPTH1R regulates bone metabolism, signaling mainly

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through G_s and $G_{q/11}$ G-proteins. PTH1R is a critical regulator of skeletal development and homeostasis^{[1][2]}.

REFERENCES

[1]. Bryce W Pickard, et al. Type 1 parathyroid hormone receptor (PTH1R) nuclear trafficking: association of PTH1R with importin alpha1 and beta. Endocrinology. 2006 Jul;147(7):3326-32.

[2]. Xuekun Fu, et al. Al. Kindlin-2 regulates skeletal homeostasis by modulating PTH1R in mice. Signal Transduct Target Ther. 2020 Dec 26;5(1):297.

Caution: Product has not been fully validated for medical applications. For research use only.

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