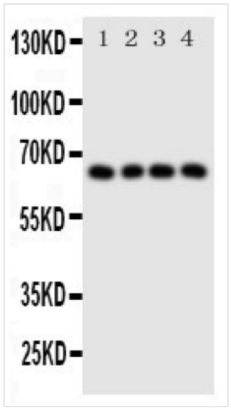
PTH1R Antibody – Rabbit Polyclonal

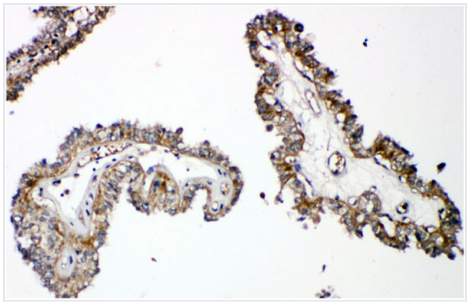
PRODUCT OVERVIEW

Product Name	PTH1R, Polyclonal Antibody
Full Product Name	PTH1R (PTHR, PTHR1, PTH/PTHr receptor, PTH1 receptor, PTH/PTHRP receptor, Parathyroid hormone receptor 1, Parathyroid hormone 1 receptor, PTH/PTHrP type I receptor, Parathyroid hormone/parathyroid hormone-related protein receptor) (Biotin)
Product Gene Name	anti-PTH1R antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied as a liquid in PBS, pH 7.2. Labeled with Biotin.
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human, mouse and rat PTH1R. No crossreactivity with other proteins.
Preparation and Storage	Lyophilized powder may be stored at -20 degree C. Stable for 12 months after receipt at -20 degree C. Reconstitute with sterile ddH2O. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Reconstituted product is stable for 12 months at -20 degree C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.
Molecular Weight	66,361 Da
Chromosome Location	Chromosome: 3; NC_000003.11 (46919236..46945289). Location: 3p22-p21.1
OMIM	125350
3D Structure	ModBase 3D Structure for Q03431
Immunogen	A synthetic peptide corresponding to a sequence (aa1388-406: KLRETNAGRCDTRQQYRKL) at the C-terminus of human PTH1R, identical to the related mouse and rat sequences.
Conjugate	Biotin
Note	Preservative Free
Product Categories/Family for anti-PTH1R antibody	Antibodies; Receptors
Applications Tested/Suitable for anti-PTH1R antibody	Western Blot (WB), Immunohistochemistry (IHC) Paraffin, Immunocytochemistry (ICC)
Application Notes for anti-PTH1R antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-PTH1R antibody	Parathyroid hormone/parathyroid hormone-related peptide receptor, also known as PTH1R, PTHR, is a protein that in humans is encoded by the PTH1R gene. PTHR is a member of a family of G protein-coupled receptors. PTHR gene was mapped to the vicinity of the 3p21.3-p21.2 boundary by PCR analysis of human/rodent somatic cell hybrid panels using oligonucleotide primers designed to amplify a portion of the gene from genomic DNA. This is a receptor for parathyroid hormone and for parathyroid hormone-related peptide. The activity of this receptor is mediated by G proteins which activate adenylyl cyclase and also a phosphatidylinositol-calcium second messenger system.

Product References and Citations for anti-PTH1R antibody	1. Bastepe, M., Raas-Rothschild, A., Silver, J., Weissman, I., Wientroub, S., Juppner, H., Gillis, D. A form of Jansen's metaphyseal chondrodysplasia with limited metabolic and skeletal abnormalities is caused by a novel activating parathyroid hormone (PTH)/PTH-related peptide receptor mutation. J. Clin. Endocr. Metab. 89: 3595-3600, 2004. 2. Decker, E., Stellzig-Eisenhauer, A., Fiebig, B. S., Rau, C., Kress, W., Saar, K., Ruschendorf, F., Hubner, N., Grimm, T., Weber, B. H. F. PTHR1 loss-of-function mutations in familial, nonsyndromic primary failure of tooth eruption. Am. J. Hum. Genet. 83: 781-786, 2008. 3. Hoogendam, J., Farih-Sips, H., Wynaendts, L. C., Lowik, C. W. G. M., Wit, J. M., Karperien, M. Novel mutations in the parathyroid hormone (PTH)/PTH-related peptide receptor type 1 causing Blomstrand osteochondrodysplasia types I and II. J. Clin. Endocr. Metab. 92: 1088-1095, 2007. 4. Wang, B., Yang, Y., Friedman, P. A. Na/H exchange regulatory factor 1, a novel AKT-associating protein, regulates extracellular signal-regulated kinase signaling through a B-Raf-mediated pathway. Mol. Biol. Cell 19: 1637-1645, 2008.
Other Notes	Small volumes of anti-PTH1R antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PTH1R purchase	MBS6404613 is an antibody targeting PTH1R. Also known as PTH1R (PTHR, PTHR1, PTH/PTHr receptor, PTH1 receptor, PTH/PTHRP receptor, Parathyroid hormone receptor 1, Parathyroid hormone 1 receptor, PTH/PTHrP type I receptor, Parathyroid hormone/parathyroid hormone-related protein receptor) (Biotin). Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-PTH1R antibody
Western blotting results using antibody 145107: Lane 1: SKOV Cell Lysate Lane 2: U20S Cell Lysate Lane 3: HELA Cell Lysate Lane 4: SMMC Cell Lysate



Immunohistochemistry (IHC) of anti-PTH1R antibody
IHC staining of paraffin-embedded human thyroid cancer tissue using antibody 145107.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PTH1R. It may not necessarily be applicable to this product.

NCBI GI #	4506271
NCBI GeneID	5745
NCBI Accession #	NP_000307.1
UniProt Primary Accession #	Q03431
UniProt Secondary Accession #	Q2M1U3
UniProt Related Accession #	Q03431
GenBank Nucleotide #	NM_000316.2
NCBI Official Full Name	parathyroid hormone/parathyroid hormone-related peptide receptor
NCBI Official Synonym Full Names	parathyroid hormone 1 receptor
NCBI Official Symbol	PTH1R
NCBI Official Synonym Symbols	PFE; PTHR; PTHR1
UniProt Protein Name	Parathyroid hormone/parathyroid hormone-related peptide receptor

UniProt Synonym Protein Names	PTH/PTHrP type I receptor; PTH/PTHr receptor; Parathyroid hormone 1 receptor
Protein Family	Parathyroid hormone/parathyroid hormone-related peptide receptor
UniProt Gene Name	PTH1R
UniProt Synonym Gene Names	PTHR; PTHR1; PTH/PTHr receptor
UniProt Entry Name	PTH1R_HUMAN
NCBI Protein Information	parathyroid hormone/parathyroid hormone-related peptide receptor; PTH1 receptor; PTH/PTHr receptor; PTH/PTHrP type I receptor; parathyroid hormone receptor 1; seven transmembrane helix receptor; parathyroid hormone/parathyroid hormone-related protein rece
NCBI Summary for PTH1R	The protein encoded by this gene is a member of the G-protein coupled receptor family 2. This protein is a receptor for parathyroid hormone (PTH) and for parathyroid hormone-like hormone (PTHLH). The activity of this receptor is mediated by G proteins which activate adenylyl cyclase and also a phosphatidylinositol-calcium second messenger system. Defects in this receptor are known to be the cause of Jansen's metaphyseal chondrodysplasia (JMC), chondrodysplasia Blomstrand type (BOCD), as well as enchodromatosis. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, May 2010]
UniProt Comments for PTH1R	PTHR: This is a receptor for parathyroid hormone and for parathyroid hormone-related peptide. The activity of this receptor 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). JMC is a rare autosomal dominant disorder characterized by a short-limbed dwarfism associated with hypercalcemia and normal or low serum concentrations of the two parathyroid hormones. Defects in PTH1R are the cause of chondrodysplasia Blomstrand type (BOCD). BOCD is a severe skeletal dysplasia. Defects in PTH1R may be a cause of enchondromatosis multiple (ENCHOM). Enchondromas are common benign cartilage tumors of bone. They can occur as solitary lesions or as multiple lesions in enchondromatosis (Ollier and Maffucci diseases). Clinical problems caused by enchondromas include skeletal deformity and the potential for malignant change to osteosarcoma. Defects in PTH1R are the cause of Eiken skeletal dysplasia (EISD); also known as bone modeling defect of hands and feet. It is a rare familial autosomal recessive skeletal dysplasia. It is characterized by multiple epiphyseal dysplasia, with extremely retarded ossification, principally of the epiphyses, pelvis, hands and feet, as well as by abnormal modeling of the bones in hands and feet, abnormal persistence of cartilage in the pelvis and mild growth retardation. Defects in PTH1R are a cause of primary failure of tooth eruption (PFE). PFE is a rare condition that has high penetrance and variable expressivity and in which tooth retention occurs without evidence of any obvious mechanical interference. Instead, malfunction of the eruptive mechanism itself appears to cause nonankylosed permanent teeth to fail to erupt, although the eruption pathway has been cleared by bone resorption. Belongs to the G-protein coupled receptor 2 family. Protein type: GPCR, family 2; Receptor, GPCR; Membrane protein, integral; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 3p22-p21.1 Cellular Component: integral to plasma membrane; brush border membrane; basolateral plasma membrane; apical plasma membrane; cytoplasm; plasma membrane; nucleus; receptor complex Molecular Function: protein binding; protein self-association; peptide hormone binding; parathyroid hormone receptor activity Biological Process: cell maturation; G-protein signaling, adenylate cyclase activating pathway; bone mineralization; osteoblast development; G-protein signaling, coupled to cAMP nucleotide second messenger; negative regulation of cell proliferation; G-protein coupled receptor protein signaling pathway; G-protein signaling, coupled to cyclic nucleotide second messenger; elevation of cytosolic calcium ion concentration; positive regulation of cell proliferation; chondrocyte differentiation; G-protein signaling, coupled to IP3 second messenger (phospholipase C activating); skeletal development; aging; bone resorption Disease: Eiken Syndrome; Chondrodysplasia, Blomstrand Type; Failure Of Tooth Eruption, Primary; Metaphyseal Chondrodysplasia, Jansen Type
Research Articles on PTH1R	**1.** beta-catenin binds to the PTHR-1 C-tail and switches the downstream signaling pathway from G(alphas)/cAMP to G(alphaq)/Ca(2+), which is a mechanism by which chondrocyte hypertrophy may be regulated through the PTH/PTHrP signal independent of canonical Wnt pathway

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