

### PTH1R Antibody

Purified Mouse Monoclonal Antibody Catalog # AO1438a

### Specification

## PTH1R Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW **Description**  WB, IHC, ICC, E <u>Q03431</u> Human Mouse Monoclonal IgG1 66kDa KDa

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.

Immunogen Purified recombinant fragment of human PTH1R expressed in E. Coli.

**Formulation** Ascitic fluid containing 0.03% sodium azide.

### **PTH1R Antibody - Additional Information**

Gene ID 5745

**Other Names** Parathyroid hormone/parathyroid hormone-related peptide receptor, PTH/PTHrP type I receptor, PTH/PTHr receptor, Parathyroid hormone 1 receptor, PTH1 receptor, PTH1R, PTHR, PTHR1

Dilution WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 ICC~~N/A E~~N/A

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

PTH1R Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



# **PTH1R Antibody - Protein Information**

Name PTH1R {ECO:0000303|PubMed:10913300, ECO:0000312|HGNC:HGNC:9608}

**Function** 

G-protein-coupled receptor for parathyroid hormone (PTH) and for parathyroid hormone-related peptide (PTHLH) (PubMed: <a href="http://www.uniprot.org/citations/10913300" target=" blank">10913300</a>, PubMed:<a href="http://www.uniprot.org/citations/18375760" target=" blank">18375760</a>, PubMed:<a href="http://www.uniprot.org/citations/19674967" target=" blank">19674967</a>, PubMed:<a href="http://www.uniprot.org/citations/27160269" target=" blank">27160269</a>, PubMed:<a href="http://www.uniprot.org/citations/30975883" target=" blank">30975883</a>, PubMed:<a href="http://www.uniprot.org/citations/35932760" target=" blank">35932760</a>, PubMed:<a href="http://www.uniprot.org/citations/8397094" target="\_blank">8397094</a>). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase (cAMP) (PubMed:<a href="http://www.uniprot.org/citations/30975883" target=" blank">30975883</a>, PubMed:<a href="http://www.uniprot.org/citations/35932760" target=" blank">35932760</a>). PTH1R is coupled to G(s) G alpha proteins and mediates activation of adenylate cyclase activity (PubMed:<a href="http://www.uniprot.org/citations/20172855" target="\_blank">20172855</a>, PubMed:<a href="http://www.uniprot.org/citations/30975883" target="\_blank">30975883</a>, PubMed:<a href="http://www.uniprot.org/citations/35932760" target="\_blank">35932760</a>). PTHLH dissociates from PTH1R more rapidly than PTH; as consequence, the cAMP response induced by PTHLH decays faster than the response induced by PTH (PubMed:<a href="http://www.uniprot.org/citations/35932760" target=" blank">35932760</a>).

**Cellular Location** Cell membrane; Multi-pass membrane protein

**Tissue Location** 

Expressed in most tissues. Most abundant in kidney, bone and liver.

## PTH1R Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

PTH1R Antibody - Images





Figure 1: Western blot analysis using PTH1R mAb against PTH1R (AA: 27-188)-hlgGFc transfected HEK293 cell lysate.



Figure 2: Immunohistochemical analysis of paraffin-embedded human kidney tissues using PTH1R mouse mAb with DAB staining.



Figure 3: Immunofluorescence analysis of SK-BR-3 cells using PTH1R mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

## **PTH1R Antibody - References**

1. Int J Cancer. 2007 Sep 1;121(5):943-54. 2. Mol Endocrinol. 2008 Jan;22(1):156-66.