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PTH1R Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1438a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	Q03431
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4D2
Isotype	IgG1
Calculated MW	66361
Description	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.

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.

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:10913300, PubMed:11773434, PubMed:18375760, PubMed:19674967, PubMed:27160269, PubMed:30975883, PubMed:35932760, PubMed:8397094). 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:30975883, PubMed:35932760). PTH1R is coupled to G(s) G alpha proteins and mediates activation of adenylate cyclase activity (PubMed:20172855, PubMed:30975883, PubMed:35932760). 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:35932760).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed in most tissues. Most abundant in kidney, bone and liver.

References

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

Images

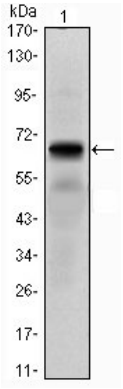


Figure 1: Western blot analysis using PTH1R mAb against PTH1R (AA: 27-188)-hIgGFc transfected HEK293 cell lysate.

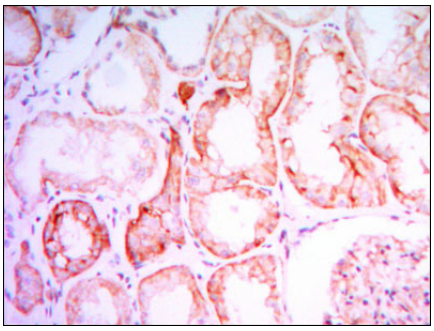
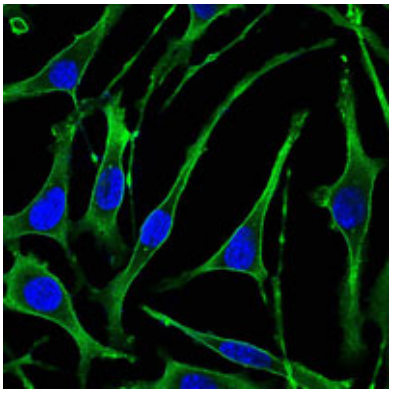


Figure 2: Immunohistochemical analysis of paraffin-embedded human kidney tissues using PTH1R mouse mAb with DAB staining.

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



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.