

Alternate Names	Parathyroid hormone/parathyroid hormone-related peptide receptor, FE, PTHR, EKNS
Isotype	IgG2a
Conjugate	Unconjugated
Background	Parathyroid hormone 1 receptor (PTH1R) is a 7-transmembrane G protein-coupled receptor (GPCR). PTH1R is a Class B GPCR. It is activated primarily by parathyroid hormone (PTH) and PTH-related peptide (PTHrP). PTH1R plays a central role in calcium and phosphate homeostasis, bone remodeling, and skeletal development, with prominent expression in bone and kidney. Ligand binding activates Gs/cAMP/PKA and Gq/PLC signaling pathways. PTH1R is an important therapeutic target for osteoporosis, hypoparathyroidism, and other bone disorders. PTH1R is highly expressed in osteoblasts of the bone as well as kidney and liver cells. PTH1R is a prognostic marker for many carcinomas such as kidney renal clear cell carcinoma and liver hepatocellular carcinoma. Dog PTH1R protein has 95% and >85% sequence homology with human and mouse PTH1R, respectively.

Product Details

Specificity	Detects human and dog Parathyroid hormone 1 receptor/PTH1R transfectants but not irrelevant transfectants in flow cytometry.
Antibody Type	Mouse monoclonal
Host Species	Mouse
Immunogen	PTH1R N-terminus, the exact sequence of the immunogen is proprietary.; UniProt # Q9TU31
Formulation / Storage buffer	Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4 with 10% trehalose as a protectant



Anti-PTH1R Monoclonal Antibody

Product Code: CABd-26376

Clone: 1B1-H5

For Research Use Only (RUO)

Reconstitution

For best performance, we strongly recommend you reconstitute the lyophilized product with deionized water to a stock solution of 500 µg/mL.

Solubilize for 20 minutes at room temperature with occasional gentle mixing. Avoid shaking or vortexing.

For 25µg product size:
Reconstitute with 50 µL sterile deionized water.

For 100µg product size:
Reconstitute with 200 µL sterile deionized water.

Shipping

Product is shipped at ambient temperature.

Purification

Affinity Enrichment

Stability & Storage

On receipt, store at -20 C or lower for long term storage.
This product is stable at:

-20 to -70 C for 12 months from date of receipt in lyophilized state.

-70 C for 3 months after reconstitution under sterile conditions.

Avoid repeated freeze-thaw cycles

Verified Application

ELISA, Flow cytometry

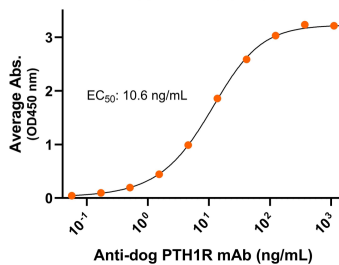
Recommended Usage

ELISA: starting concentration 1 µg/mL
Flow cytometry: 0.8 µg/1E6 cells

Bioactive Data, Detection of Antigen by:

ELISA

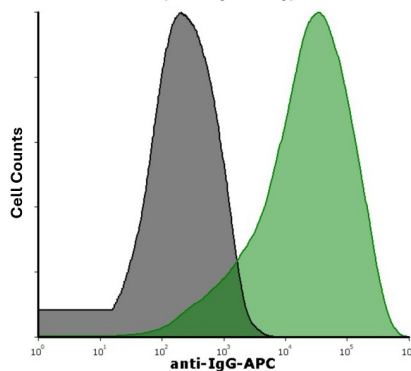
Anti-dog PTH1R Monoclonal Antibody, ELISA
0.2 µg of PTH1R peptide per well



Immobilized dog PTH1R fragment at 2 µg/mL (100 µL/well) can bind Mouse Anti-PTH1R Monoclonal Antibody (Cat. No. CABd-26376) with half maximal effective concentration (EC50) range of 5.3-21.2 ng/mL (QC tested).

Flow Cytometry

mAb binding Dog PTH1R expressing live cells (Flow Cytometry)



Detection of PTH1R in HEK293 human cell line transiently transfected with dog PTH1R by Flow Cytometry. HEK293 cell line transfected with dog PTH1R was stained with isotype control (black curve) or Mouse Anti-PTH1R Monoclonal Antibody (Cat. No. CABd-26376) (green curve) by APC-conjugated Anti-Mouse IgG Secondary Antibody.

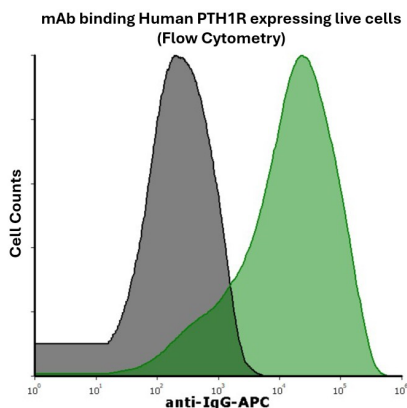
Anti-PTH1R Monoclonal Antibody

Product Code: CABd-26376

Clone: 1B1-H5

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Flow Cytometry



Detection of PTH1R in HEK293 human cell line transiently transfected with human PTH1R by Flow Cytometry. HEK293 cell line transfected with human PTH1R was stained with isotype control (black curve) or Mouse Anti-PTH1R Monoclonal Antibody (Cat. No. CABd-26376) (green curve) by APC-conjugated Anti-Mouse IgG Secondary Antibody.

Antigen Details

Structure	7-transmembrane protein, G protein-coupled receptor (GPCR)
Function	Regulates calcium ion homeostasis through activation of adenylate cyclase and phospholipase C
Ligand / Receptor	parathyroid hormone (PTH) and for parathyroid hormone-related peptide (PTHrP)
Cell Type	Bone cells such as osteoblasts, kidney cells such as Proximal tubular cells, and Podocytes and liver cells such as Hepatic stellate cells
Molecular Family	G protein-coupled receptor
Gene ID	Q9TU31