

## Product datasheet for **TA329009**

### Pth1r Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DAVLYSGFTLDEAER, corresponding to amino acid residues 241-255 of rat Parathyroid Hormone 1 Receptor . 1st extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	parathyroid hormone 1 receptor
Database Link:	<a href="#">NP_064458</a> <a href="#">Entrez Gene 5745 Human</a> <a href="#">Entrez Gene 19228 Mouse</a> <a href="#">Entrez Gene 56813 Rat</a> <a href="#">P25961</a>



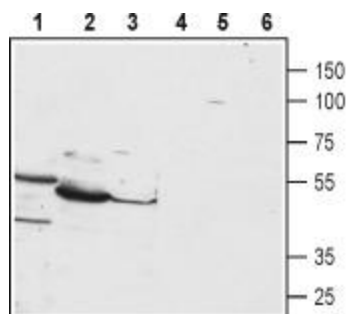
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**Background:**

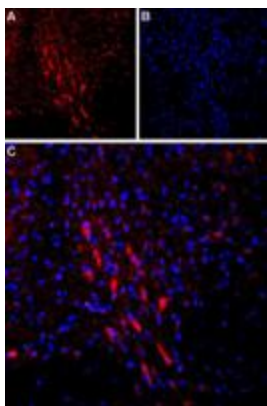
The parathyroid hormone receptor type 1 (PTHr1) is bound and activated by two peptide hormones: the parathyroid hormone (PTH) secreted by the parathyroid gland and by parathyroid hormone related peptide (PTHrP) which is produced locally in many tissues. Although these two peptides bind the same receptor, they exert different actions. PTH regulates the concentrations of Ca<sup>2+</sup>, phosphate ions and vitamin D in the blood, stimulates bone formation/resorption and is distributed to the kidneys where it regulates Ca<sup>2+</sup> and phosphate transport, and is also detected in the liver. PTHrP, on the other hand, plays a critical role early in development of bone, heart, mammary glands and other tissues, and is detected in the circulation only during lactation and secreted by some tumors. PTHr1 is obviously localized to all areas and tissues where PTH and PTHrP are known to exert their effects (i.e. bone, kidney, blood, heart, etc.). PTHr1 belongs to the superfamily of G-protein coupled receptors. Like all members, PTHr1 has seven transmembrane spanning domains, an extracellular N-terminus and an intracellular C-terminal tail. Upon activation, the receptor couples to either G<sub>s</sub> and G<sub>q</sub> thereby activating adenylate cyclase and phospholipase C (PLC) respectively. In osteosarcoma cells, PTHr1 can also couple G<sub>α</sub>. PTH is being used today to treat osteoporosis, as a factor promoting bone formation. Mutations in PTHr1 are associated with Jansen's disease (hypercalcemia and dwarfism) and Eiken syndrome (cartilage tumors of bone).

**Synonyms:**

MGC138426; MGC138452; OTTHUMP00000209970; OTTHUMP00000209971; PFE; PTHR; PTHR1

**Product images:**

Western blot analysis of HepG2 (lanes 1 and 4), mouse liver (lanes 2 and 5) and rat liver (lanes 3 and 6) lysates: 1-3. Anti-Parathyroid Hormone 1 Receptor (extracellular) antibody, (1:200). 4-6. Anti-Parathyroid Hormone 1 Receptor (extracellular) antibody preincubated with the control peptide antigen.



Expression of Parathyroid hormone receptor 1 in rat brain. Immunohistochemical staining of rat dorsal Raphe nucleus using Anti-Parathyroid Hormone Receptor 1 (extracellular) antibody. A. PTH1R (red) staining is detected in Raphe neurons (arrows). B. Nucleus staining using DAPI as the counterstain (blue). C. Merged images of A and B.