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# PTHLH Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7336c

## Product Information

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|---|---|
| **Application** | WB, IHC-P, FC, E |
| **Primary Accession** | P12272 |
| **Other Accession** | P13085, P22858 |
| **Reactivity** | Human, Mouse |
| **Predicted** | Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB18947 |
| **Calculated MW** | 20194 |
| **Antigen Region** | 76-103 |

## Additional Information

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| **Gene ID** | 5744 |
| **Other Names** | Parathyroid hormone-related protein, PTH-rP, PTHrP, Parathyroid hormone-like protein, PLP, PTHrP[1-36], PTHrP[38-94], Osteostatin, PTHrP[107-139], PTHLH, PTHRP |
| **Target/Specificity** | This PTHLH antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 76-103 amino acids from the Central region of human PTHLH. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | PTHLH Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | PTHLH {ECO:0000303\|PubMed:20170896, ECO:0000312\|HGNC:HGNC:9607} |

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| **Function** | Neuroendocrine peptide which is a critical regulator of cellular and organ growth, development, migration, differentiation and survival and of epithelial calcium ion transport (PubMed:12538599, PubMed:35932760, PubMed:3616618). Acts by binding to its receptor, PTH1R, activating G protein-coupled receptor signaling (PubMed:19674967, PubMed:35932760). Regulates endochondral bone development and epithelial-mesenchymal interactions during the formation of the mammary glands and teeth (By similarity). Required for skeletal homeostasis (PubMed:12538599). Promotes mammary mesenchyme differentiation and bud outgrowth by modulating mesenchymal cell responsiveness to BMPs (PubMed:12538599). Up-regulates BMPR1A expression in the mammary mesenchyme and this increases the sensitivity of these cells to BMPs and allows them to respond to BMP4 in a paracrine and/or autocrine fashion (By similarity). BMP4 signaling in the mesenchyme, in turn, triggers epithelial outgrowth and augments MSX2 expression, which causes the mammary mesenchyme to inhibit hair follicle formation within the nipple sheath (By similarity). Promotes colon cancer cell migration and invasion in an integrin alpha-6/beta-1- dependent manner through activation of Rac1 (PubMed:20637541). |
| **Cellular Location** | Secreted. Cytoplasm. Nucleus |
| **Tissue Location** | Ubiquitous. Also expressed in the mammary gland. |

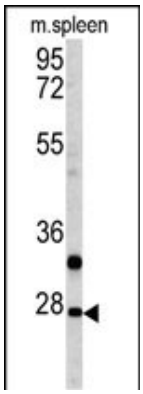
## Background

PTHLH is a member of the parathyroid hormone family. This hormone regulates endochondral bone development and epithelial-mesenchymal interactions during the formation of the mammary glands and teeth. This hormone is involved in lactation possibly by regulating the mobilization and transfer of calcium to the milk. The receptor of this hormone, PTHR1, is responsible for most cases of humoral hypercalcemia of malignancy.

## References

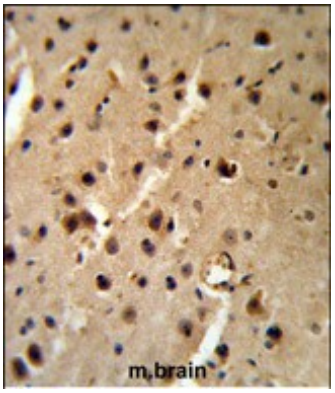
Trynka,G., Zhernakova,A. Gut 58 (8), 1078-1083 (2009) Nakao,A., Kajiya,H. J. Dent. Res. 88 (6), 551-556 (2009) Iwamura,M., Hellman,J. Urology 48 (2), 317-325 (1996) Fenton,A.J., Kemp,B.E. Endocrinology 129 (6), 3424-3426 (1991)

## Images

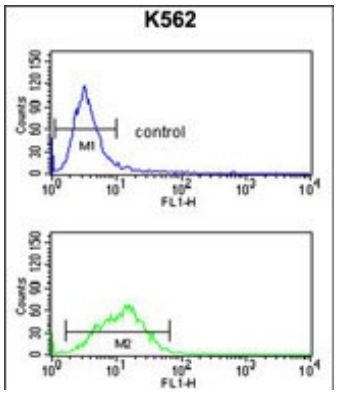



Western blot analysis of PTHLH antibody (Center) (Cat.#AP7336c) in mouse spleen tissue lysates (35ug/lane). PTHLH (arrow) was detected using the purified Pab.

PTHLH Antibody (Center) (Cat.#AP7336c) IHC analysis in formalin fixed and paraffin embedded mouse brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the




use of the PTHLH Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.




PTHLH Antibody (Center) (Cat. #AP7336c) flow cytometry analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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