10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PTHLH Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7336a

Product Information

Application	WB, IHC-P, E
Primary Accession	P12272
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18946
Calculated MW	20194
Antigen Region	10-41

Additional Information

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 10-41 amino acids from the N-terminal region of human PTHLH.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

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

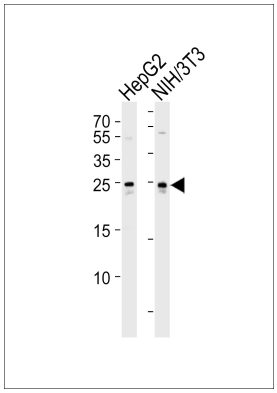
Background

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 lysates from HepG2 mouse NIH/3T3 cell line (from left to right), using PTHLH Antibody (N-term) (Cat. #AP7336a). AP7336a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

Citations

- Animal and cellular models of hepatocellular carcinoma bone metastasis: establishment and characterisation.
- Subcutaneous preconditioning increases invasion and metastatic dissemination in mouse colorectal cancer models.

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