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Polyclonal Antibody to Parathyroid Hormone (PTH)

Parathyroid Hormone
Catalog # AP74599

Product Information

Application	WB
Primary Accession	P01269
Reactivity	Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	12852

Additional Information

Gene ID	399502
Other Names	iPTH; Intact Parathyroid Hormone; Parathormone; Parathyrin
Target/Specificity	Sus scrofa; Porcine (Pig)
Dilution	WB~~Western blotting: 0.2-2 □g/mL;1:250-2500 Immunohistochemistry: 5-20 □g/mL;1:25-100 Immunocytochemistry: 5-20 □g/mL;1:25-100 Optimal working dilutions must be determined by end user.
Format	PBS, pH7.4, containing 0.02% NaN3, 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

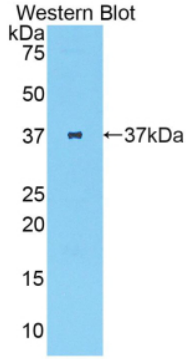
Protein Information

Name	PTH
Function	Peptide hormone secreted by parathyroid chief cells that acts as a primary endocrine regulator of extracellular calcium and phosphate homeostasis, acting primarily on bone and kidney to maintain serum calcium levels within a narrow range. Acts by binding and activating the G protein-coupled receptor PTH1R, engaging the receptor to activate G(s)-mediated cAMP/PKA signaling and G(q)-mediated PLC/PKC signaling. In bone, acts indirectly on osteoclasts by binding PTH1R on cells of the osteoblast/osteocyte lineage, where it increases expression of TNFSF11/RANKL and decreases expression of TNFRSF11B/OPG, thereby raising the RANKL/OPG ratio and stimulating osteoclast differentiation and bone resorption. Stimulates also [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblastic cells. In distal renal tubule cells, stimulates active Ca(2+) reabsorption via the adenylyl cyclase-cAMP-protein kinase A (PKA) pathway

leading to the phosphorylation and activation of the calcium selective cation channel TRPV5 (By similarity). Acting on PTH1R in proximal renal tubule cells, decreases reabsorption of filtered phosphate by reducing apical abundance of SLC34A1, through a mechanism involving PTH1R-activated PKC-mediated phosphorylation of the scaffold NHERF1, causing dissociation of the NHERF1-SLC34A1 complex and subsequent clathrin- mediated endocytosis and lysosomal degradation of the cotransporter (By similarity). Activates also transcription of CYP27B1 (25-hydroxyvitamin D3 1-alpha-hydroxylase) through a cAMP/PKA/SIK2-SIK3/CRTC2 axis, thereby increasing renal synthesis of the active vitamin D metabolite 1,25-dihydroxyvitamin D(3) (By similarity).

Cellular Location Secreted.

Images



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