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GPRC6A Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18812c

Product Information

Application	WB, E
Primary Accession	Q5T6X5
Other Accession	NP_683766.2
Reactivity	Human
Predicted	Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB39362
Calculated MW	104753
Antigen Region	489-517

Additional Information

Gene ID	222545
Other Names	G-protein coupled receptor family C group 6 member A, hGPRC6A, G-protein coupled receptor GPCR33, hGPCR33, GPRC6A
Target/Specificity	This GPRC6A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 489-517 amino acids from the Central region of human GPRC6A.
Dilution	WB~~1:1000 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	GPRC6A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GPRC6A
Function	Receptor activated by multiple ligands, including osteocalcin (BGLAP), basic amino acids, and various cations (PubMed:15576628). Activated by amino

	acids with a preference for basic amino acids such as L-Lys, L-Arg and L-ornithine but also by small and polar amino acids (PubMed:15576628). The L-alpha amino acids respond is augmented by divalent cations Ca(2+) and Mg(2+) (By similarity). Seems to act through a G(q)/G(11) and G(i)-coupled pathway (By similarity). Regulates testosterone production by acting as a ligand for uncarboxylated osteocalcin hormone: osteocalcin-binding at the surface of Leydig cells initiates a signaling response that promotes the expression of enzymes required for testosterone synthesis in a CREB-dependent manner (By similarity). Mediates the non-genomic effects of androgens in multiple tissue (By similarity). May coordinate nutritional and hormonal anabolic signals through the sensing of extracellular amino acids, osteocalcin, divalent ions and its responsiveness to anabolic steroids (PubMed:20947496).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q8K4Z6}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q8K4Z6}
Tissue Location	Isoform 1 is expressed at high level in brain, skeletal muscle, testis, bone, calvaria, osteoblasts and leukocytes Expressed at intermediate level in liver, heart, kidney and spleen Expressed at low level in lung, pancreas, placenta and ovary. Not detected in thymus, prostate, small intestine, tongue and colon Isoform 1 and isoform 2 are expressed in kidney at the same level Isoform 2 is expressed at lower level than isoform 1 in the other tissues.

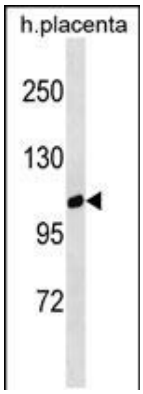
Background

Members of family C of the G protein-coupled receptor (GPCR) superfamily, such as GPRC6A, are characterized by an evolutionarily conserved amino acid-sensing motif linked to an intramembranous 7-transmembrane loop region. Several members of GPCR family C, including GPRC6A, also have a long N-terminal domain (summary by Pi et al., 2005 [PubMed 16199532]).

References

Giroux, S., et al. Bone 47(5):975-981(2010)
Takata, R., et al. Nat. Genet. 42(9):751-754(2010)
Pi, M., et al. J. Bone Miner. Res. 25(5):1092-1102(2010)
Dowal, L., et al. J. Biol. Chem. 281(33):23999-24014(2006)
Pi, M., et al. J. Biol. Chem. 280(48):40201-40209(2005)

Images



GPRC6A Antibody (Center)(Cat. #AP18812c) western blot analysis in human placenta tissue lysates (35ug/lane).This demonstrates the GPRC6A antibody detected the GPRC6A protein (arrow).

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