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GNA11 Antibody(N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19441a

Product Information

Application	WB, E
Primary Accession	P29992
Other Accession	Q9JID2, Q2XSV9, P21278, P38409, NP_002058.2
Reactivity	Human
Predicted	Bovine, Mouse, Pig, Rat, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB30618
Calculated MW	42123
Antigen Region	1-30

Additional Information

Gene ID	2767
Other Names	Guanine nucleotide-binding protein subunit alpha-11, G alpha-11, G-protein subunit alpha-11, Guanine nucleotide-binding protein G(y) subunit alpha, GNA11, GA11
Target/Specificity	This GNA11 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human GNA11.
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	GNA11 Antibody(N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GNA11
Synonyms	GA11

Function	Guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs) in numerous signaling cascades (PubMed:31073061). The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state (PubMed:31073061). Signaling by an activated GPCR promotes GDP release and GTP binding (PubMed:31073061). The alpha subunit has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal (PubMed:31073061). Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins (PubMed:31073061). Signaling is mediated via phospholipase C-beta-dependent inositol lipid hydrolysis for signal propagation: activates phospholipase C-beta: following GPCR activation, GNA11 activates PLC-beta (PLCB1, PLCB2, PLCB3 or PLCB4), leading to production of diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) (PubMed:31073061). Transduces FFAR4 signaling in response to long-chain fatty acids (LCFAs) (PubMed:27852822). Together with GNAQ, required for heart development (By similarity). In the respiratory epithelium, transmits OXGR1-dependent signals that lead to downstream intracellular Ca(2+) release and mucocilliary clearance of airborne pathogens.
Cellular Location	Cell membrane; Lipid-anchor. Cytoplasm. Note=In testicular cells, expressed exclusively in the cytoplasm.
Tissue Location	Expressed in testis..

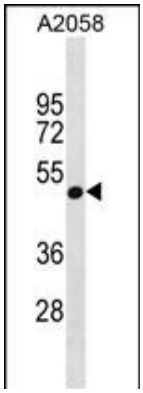
Background

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems. Acts as an activator of phospholipase C.

References

Shankaranarayanan, A., et al. J. Biol. Chem. 283(50):34923-34934(2008)
Gavard, J., et al. J. Biol. Chem. 283(44):29888-29896(2008)
Luttrell, L.M. Mol. Biotechnol. 39(3):239-264(2008)
Durchankova, D., et al. Physiol Res 57(2):195-203(2008)
Hildebrand, M.E., et al. J. Biol. Chem. 282(29):21043-21055(2007)

Images



GNA11 Antibody (N-term) (Cat. #AP19441a) western blot analysis in A2058 cell line lysates (35ug/lane).This demonstrates the GNA11 antibody detected the GNA11 protein (arrow).

Citations

- Expression of G-protein subunit α-14 is increased in human placentas from preeclamptic pregnancies.
- G Protein α Subunit 14 Mediates Fibroblast Growth Factor 2-Induced Cellular Responses in Human Endothelial Cells.
- GNA11 differentially mediates fibroblast growth factor 2- and vascular endothelial growth factor A-induced cellular responses in human fetoplacental endothelial cells.

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