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

# GNA11 Antibody(N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19441a

## Product Information

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

## Additional Information

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| **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

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| **Name** | GNA11 |
| **Synonyms** | GA11 |

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| **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.. |

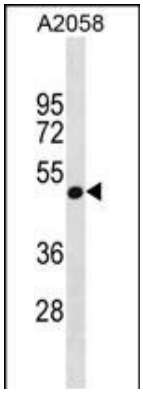
## Background

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

- 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.
- Expression of G-protein subunit α-14 is increased in human placentas from preeclamptic pregnancies.