

GNAQ Rabbit mAb
Catalog # AP75507**Specification**

GNAQ Rabbit mAb - Product Information

Application	WB
Primary Accession	P50148
Reactivity	Mouse, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	42142

GNAQ Rabbit mAb - Additional Information**Gene ID** 2776**Other Names**
GNAQ**Dilution**
WB~~1/500-1/1000**Format**
50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.**Storage**
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.**GNAQ Rabbit mAb - Protein Information****Name** GNAQ**Synonyms** GAQ**Function**

Guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs) in numerous signaling cascades (PubMed:37991948). The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state (PubMed:37991948). Signaling by an activated GPCR promotes GDP release and GTP binding (PubMed:37991948). The alpha subunit has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal (PubMed:37991948). Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins (PubMed:37991948). Signaling is mediated via phospholipase C-beta-dependent inositol lipid hydrolysis for signal propagation:

activates phospholipase C-beta: following GPCR activation, GNAQ activates PLC-beta (PLCB1, PLCB2, PLCB3 or PLCB4), leading to production of diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) (PubMed:37991948). Required for platelet activation (By similarity). Regulates B-cell selection and survival and is required to prevent B-cell-dependent autoimmunity (By similarity). Regulates chemotaxis of BM-derived neutrophils and dendritic cells (in vitro) (By similarity). Transduces FFAR4 signaling in response to long-chain fatty acids (LCFAs) (PubMed:27852822). Together with GNA11, required for heart development (By similarity).

Cellular Location

Cell membrane; Lipid-anchor. Golgi apparatus. Nucleus {ECO:0000250|UniProtKB:P21279} Nucleus membrane {ECO:0000250|UniProtKB:P21279}. Note=Colocalizes with the adrenergic receptors, ADREN1A and ADREN1B, at the nuclear membrane of cardiac myocytes. {ECO:0000250|UniProtKB:P21279}

Tissue Location

Predominantly expressed in ovary, prostate, testis and colon. Down-regulated in the peripheral blood lymphocytes (PBLs) of rheumatoid arthritis patients (at protein level)

GNAQ Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GNAQ Rabbit mAb - Images

