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G protein alpha 16 Rabbit pAb

Catalog # AP97359

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P30679
Other Accession	P30679
Reactivity	Rat, Human
Predicted	Pig, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43508
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human G protein alpha 16
Epitope Specificity	301-374/374
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the G-alpha family. G(q) subfamily.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Heterotrimeric G proteins function to relay information from cell surface receptors to intracellular effectors (1). Each of a very broad range of receptors specifically detects an extracellular stimulus (a photon, pheromone, odorant, hormone or neurotransmitter) while the effectors (i.e., adenylyl cyclase), which act to generate one or more intracellular messengers, are less numerous. In mammals, G protein alpha, Beta and Gamma polypeptides are encoded by at least 16, 4 and 7 genes, respectively (2-5). Most interest in G proteins has been focused on their a subunits, since these proteins bind and hydrolyze GTP and most obviously regulate the activity of the best studied effectors. Four distinct classes of G alpha subunits have been identified; these include Gs, Gi, Gq and Ga 12/13 (3,4). The Gi class comprises all the known a subunits that are susceptible to pertussis toxin modifications, including Ga i-1, Ga i-2, Ga i-3, Ga o, Ga t1, Ga t2, Ga z and Ga gust (4). Of these, the three Ga i subtypes function to open atrial potassium channels (6). Ga 16 is a member of the Gq subfamily and is expressed specifically in hematopoietic cells (7).

Additional Information

Gene ID	2769
Other Names	GNA16; HG1L; GNA15_HUMAN; GNA15; G alpha-15; G-protein subunit alpha-15; Epididymis tissue protein Li 17E; Guanine nucleotide-binding protein subunit alpha-16 (G alpha-16 | G-protein subunit alpha-16); G protein subunit alpha 15; guanine nucleotide binding protein (G protein), alpha 15 (Gq class)

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	GNA15
Synonyms	GNA16
Function	Member of the G protein alpha subunit family that plays a crucial role in intracellular signaling. Functions as a molecular switch, transducing signals from G protein-coupled receptors (GPCRs) to downstream effectors. In collaboration with the adapter protein TTC1, promotes HRAS activation and ERK1/2 phosphorylation independently of phospholipase Cbeta signaling (PubMed:12748287, PubMed:20639119). Also initiates EMR2-mediated signaling, leading to activation of Akt, MAPK, and NF-kappa-B, which in turn drives macrophage differentiation and inflammatory responses (PubMed:28421075).
Tissue Location	Specifically expressed in hematopoietic cells. Expressed in epididymis (at protein level)

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