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GNA12 Antibody (S67)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8035a

Product Information

Application	WB, E
Primary Accession	Q03113
Other Accession	P25157, P27601, Q14344, Q63210, P27600
Reactivity	Human
Predicted	Mouse, Rat, Drosophila, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	44279
Antigen Region	46-75

Additional Information

Gene ID	2768
Other Names	Guanine nucleotide-binding protein subunit alpha-12, G alpha-12, G-protein subunit alpha-12, GNA12
Target/Specificity	This GNA12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 46-75 amino acids from human GNA12.
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	GNA12 Antibody (S67) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GNA12
Function	Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems (PubMed:12515866, PubMed:15240885, PubMed:15525651,

PubMed:16705036, PubMed:16787920, PubMed:17565996, PubMed:22609986, PubMed:23762476, PubMed:27084452). Activates effector molecule RhoA by binding and activating RhoGEFs (ARHGEF12/LARG) (PubMed:12515866, PubMed:15240885, PubMed:16202387). GNA12-dependent Rho signaling subsequently regulates transcription factor AP-1 (activating protein-1) (By similarity). GNA12-dependent Rho signaling also regulates protein phosphatese 2A activation causing dephosphorylation of its target proteins (PubMed:15525651, PubMed:17565996). Promotes tumor cell invasion and metastasis by activating RhoA/ROCK signaling pathway and up-regulating pro-inflammatory cytokine production (PubMed:16705036, PubMed:16787920, PubMed:23762476, PubMed:27084452). Inhibits CDH1-mediated cell adhesion in process independent from Rho activation (PubMed:11976333, PubMed:16787920). Together with NAPA promotes CDH5 localization to plasma membrane (PubMed:15980433). May play a role in the control of cell migration through the TOR signaling cascade (PubMed:22609986).

Cellular Location

Cell membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:Q63210}; Cytoplasmic side {ECO:0000250|UniProtKB:Q63210}. Lateral cell membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:Q63210}; Cytoplasmic side {ECO:0000250|UniProtKB:Q63210}. Cytoplasm. Note=Associated to the plasma membrane via lipid-anchor (By similarity). CDH1 enhances cell membrane localization (PubMed:15525651). {ECO:0000250|UniProtKB:P27600, ECO:0000269|PubMed:15525651}

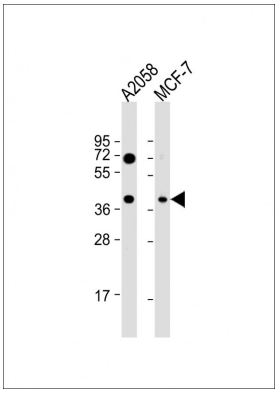
Background

Guanine nucleotide-binding proteins (G proteins) are modulators or transducers in various transmembrane signaling systems. G proteins are composed of 3 subunits; alpha, beta and gamma. The alpha chain contains the guanine nucleotide binding site.

References

Krakstad, B.F., et al., Proc. Natl. Acad. Sci. U.S.A. 101(28):10314-10319 (2004).
Hillier, L.W., et al., Nature 424(6945):157-164 (2003).
Scherer, S.W., et al., Science 300(5620):767-772 (2003).
Suzuki, N., et al., Proc. Natl. Acad. Sci. U.S.A. 100(2):733-738 (2003).
Yamaguchi, Y., et al., J. Biol. Chem. 278(17):14936-14939 (2003).

Images



All lanes : Anti-GNA12 Antibody (S67) at 1:1000 dilution Lane 1: A2058 whole cell lysate Lane 2: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 44 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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