

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 phosphatase 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](#)}

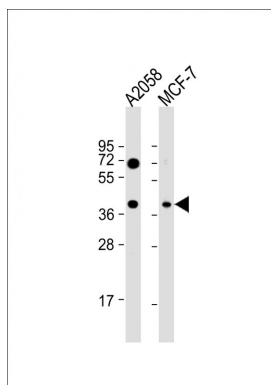
Background

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'.