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phospho-GNA12 (Ser40) Rabbit pAb

Catalog # AP98356

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q03113
Other Accession	Q03113
Reactivity	Human
Predicted	Rat, Mouse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44279
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GNA12
Epitope Specificity	RR(p-S)RD
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(12) subfamily.
SUBUNIT	G proteins are composed of 3 units; alpha, beta and gamma. The alpha chain contains the guanine nucleotide binding site. Interacts with UBXD5.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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.

Additional Information

Gene ID	2768
Other Names	HG1M1; NNX3; RMP; gep; Galpha12; GNA12_HUMAN; GNA12; G alpha-12; G-protein subunit alpha-12; GNA12_MOUSE; Gna-12; GNA12_RAT; G protein subunit alpha 12; guanine nucleotide binding protein (G protein) alpha 12; GNA12 (phospho-S40); p-GNA12; phospho-GNA12; GNA12 (phospho-Ser40)
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	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}

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