

Rabbit PIK3CG Polyclonal Antibody | anti-PIK3CG antibody

PIK3CG Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325867	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

PIK3CG; Polyclonal Antibody; PIK3CG Antibody; 1 phosphatidylinositol 3 kinase; 5-bisphosphate 3-kinase 110 kDa catalytic subunit gamma; 5-bisphosphate 3-kinase catalytic subunit gamma isoform; p110 gamma; p110gamma; p120 PI3K; p120-PI3K; Phosphatidylinositol 3 kinase catalytic 110 kD gamma; Phosphatidylinositol 3 kinase gamma; Phosphatidylinositol 3 kinase; catalytic; gamma polypeptide; Phosphatidylinositol 4 5 bisphosphate 3 kinase 110 kDa catalytic subunit gamma; Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit gamma; Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit gamma isoform; Phosphatidylinositol-4; Phosphoinositide 3 kinase catalytic gamma polypeptide; Phosphoinositide 3 kinase gamma catalytic subunit; PI3 kinase p110 subunit gamma; PI3-kinase subunit gamma; PI3CG; PI3K; PI3K-gamma; PI3Kgama; PIK3; P1k3cg; PK3CG_HUMAN; PtdIns-3-kinase subunit gamma; PtdIns-3-kinase subunit p110-gamma; Serine/threonine protein kinase PIK3CG; anti-PIK3CG antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PIK3CG antibody detects endogenous levels of total PIK3CG
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1102
Applicable Applications for anti-PIK3CG antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PIK3CG
Subcellular Location	Plasma Membrane
Tissue Specificity	Pancreas, skeletal muscle, liver and heart.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA325867 staining NIH-3T3 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)

Western blot analysis of Jurkat using PIK3CG antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PIK3CG antibody

Description: Phosphoinositide 3-kinase (PI3K) catalyzes the production of phosphatidylinositol-3, 4, 5-triphosphate by phosphorylating phosphatidylinositol (PI), phosphatidylinositol-4-phosphate (PIP) and phosphatidylinositol-4, 5-bisphosphate (PIP2). Growth factors and hormones trigger this phosphorylation event, which in turn coordinates cell growth, cell cycle entry, cell migration, and cell survival (1). PTEN reverses this process, and the PI3K signaling pathway is constitutively activated in human cancers that have loss of function of PTEN (2). PI3Ks are composed of a catalytic subunit (p110) and a regulatory subunit. Various isoforms of the catalytic subunit (p110alpha, p110beta, p110gamma, and p110delta) have been isolated, and the regulatory subunits that associate with p110alpha, p110beta, and p110delta are p85alpha and p85beta (3). In contrast, p110gamma associates with a p101 regulatory subunit that is unrelated to p85. Furthermore, p110gamma is activated by betagamma subunits of heterotrimeric G proteins (4).

Function: Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns(4, 5)P2 (Phosphatidylinositol 4, 5-bisphosphate) to generate phosphatidylinositol 3, 4, 5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Links G-protein coupled receptor activation to PIP3 production. Involved in immune, inflammatory and allergic responses. Modulates leukocyte chemotaxis to inflammatory sites and in response to chemoattractant agents. May control leukocyte polarization and migration by regulating the spatial accumulation of PIP3 and by regulating the organization of F-actin formation and integrin-based adhesion at the leading edge. Controls motility of dendritic cells. Together with PIK3CD is involved in natural killer (NK) cell development and migration towards the sites of inflammation. Participates in T-lymphocyte migration. Regulates T-lymphocyte proliferation and cytokine production. Together with PIK3CD participates in T-lymphocyte development. Required for B-lymphocyte development and signaling. Together with PIK3CD participates in neutrophil respiratory burst. Together with PIK3CD is involved in neutrophil chemotaxis and extravasation. Together with PIK3CB promotes platelet aggregation and thrombosis. Regulates alpha-IIb/beta-3 integrins (ITGA2B/ITGB3) adhesive function in platelets downstream of P2Y12 through a lipid kinase activity-independent mechanism. May have also a lipid kinase activity-dependent function in platelet aggregation. Involved in endothelial progenitor cell migration. Negative regulator of cardiac contractility. Modulates cardiac contractility by anchoring protein kinase A (PKA) and PDE3B activation, reducing cAMP levels. Regulates cardiac contractility also by promoting beta-adrenergic receptor internalization by binding to GRK2 and by non-muscle tropomyosin phosphorylation. Also has serine/threonine protein kinase activity: both lipid and protein kinase activities are required for beta-adrenergic receptor endocytosis. May also have a scaffolding role in modulating cardiac contractility. Contributes to cardiac hypertrophy under pathological stress. Through simultaneous binding of PDE3B to RAPGEF3 and PIK3R6 is assembled in a signaling complex in which the PI3K gamma complex is activated by RAPGEF3 and which is involved in angiogenesis.

Subunit Structure: Heterodimer of a catalytic subunit PIK3CG and a PIK3R5 or PIK3R6 regulatory subunit. Interacts with GRK2 through the PIK helical domain. Interaction with GRK2 is required for targeting to agonist-occupied receptor. Interacts with PDE3B (By similarity). Interacts with TPM2. Interacts with EPHA8; regulates integrin-mediated cell adhesion to substrate. Interacts with HRAS; the interaction is required for membrane recruitment and beta-gamma G protein dimer-dependent activation of the PI3K gamma complex PIK3CG:PIK3R6 (By similarity).

Similarity: Belongs to the PI3/PI4-kinase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	539846630
NCBI GeneID	5294
NCBI Accession #	NP_001269355.1

NCBI GenBank Nucleotide #	NM_001282426.1
UniProt Accession #	P48736 ; Q8IV23 ; Q9BZC8 ; A4D0Q6
Molecular Weight	Observed: 126 kDa Predicted: 127 kDa
NCBI Official Full Name	phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit gamma isoform
NCBI Official Synonym Full Names	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma
NCBI Official Symbol	PIK3CG
NCBI Official Synonym Symbols	PI3K; PIK3; PI3CG; PI3Kgamma; p110gamma; p120-PI3K
NCBI Protein Information	phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit gamma isoform
UniProt Protein Name	Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit gamma isoform
UniProt Gene Name	PIK3CG
UniProt Synonym Gene Names	PI3-kinase subunit gamma; PI3K-gamma; PI3Kgamma; PtdIns-3-kinase subunit gamma; PtdIns-3-kinase subunit p110-gamma; p110gamma

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pik3cg-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/325867>