ARG43223
anti-PIK3CG / p110 gamma antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PIK3CG / p110 gamma
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PIK3CG / p110 gamma
Species	Human
Immunogen	Recombinant fusion protein corresponding to aa. 1-200 of Human PIK3CG / p110 gamma (NP_002640.2).
Conjugation	Un-conjugated
Alternate Names	PI3CG; Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subunit gamma; PI3K; Phosphoinositide-3-kinase catalytic gamma polypeptide; PtdIns-3-kinase subunit p110-gamma; EC 2.7.1.153; PtdIns-3-kinase subunit gamma; p120-PI3K; EC 2.7.11.1; p110gamma; PI3-kinase subunit gamma; PI3Kgamma; PI3K-gamma; PIK3; Serine/threonine protein kinase PIK3CG; Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit gamma isoform

Application Instructions

Application table

Application	Dilution
ICC/IF	1:50 - 1:200
IHC-P	1:50 - 1:200
WB	1:500 - 1:2000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Jurkat
Observed Size	~ 125 kDa

Properties

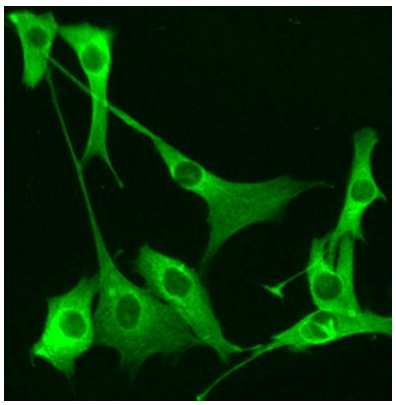
Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

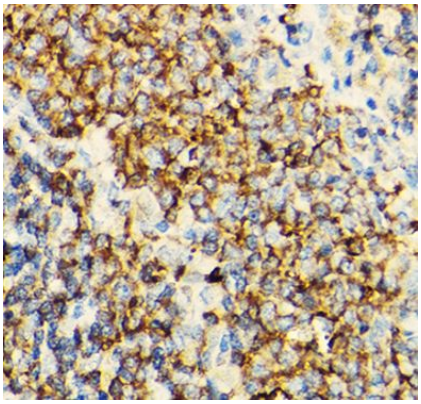
Gene Symbol	PIK3CG
Gene Full Name	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit gamma
Background	Phosphoinositide 3-kinases (PI3Ks) phosphorylate inositol lipids and are involved in the immune response. The protein encoded by this gene is a class I catalytic subunit of PI3K. Like other class I catalytic subunits (p110-alpha p110-beta, and p110-delta), the encoded protein binds a p85 regulatory subunit to form PI3K. This gene is located in a commonly deleted segment of chromosome 7 previously identified in myeloid leukemias. Several transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jun 2015]
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 PDPK1, 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. [UniProt]
Calculated Mw	126 kDa
Cellular Localization	Cytoplasm. Cell membrane. [UniProt]

Images



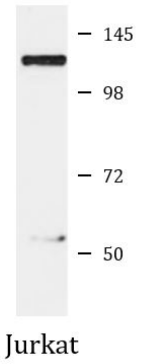
ARG43223 anti-PIK3CG / p110 gamma antibody ICC/IF image

Immunofluorescence: NIH/3T3 cells stained with ARG43223 anti-PIK3CG / p110 gamma antibody at 1:100 dilution.



ARG43223 anti-PIK3CG / p110 gamma antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse spleen tissue stained with ARG43223 anti-PIK3CG / p110 gamma antibody at 1:100 dilution.



ARG43223 anti-PIK3CG / p110 gamma antibody WB image

Western blot: 25 µg of Jurkat cell lysate stained with ARG43223 anti-PIK3CG / p110 gamma antibody at 1:1000 dilution.