ARG40867
anti-PIK3CB / p110 beta antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PIK3CB / p110 beta
Tested Reactivity	Hu
Tested Application	FACS, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PIK3CB / p110 beta
Species	Human
Immunogen	Synthetic peptide derived from Human PIK3CB / p110 beta.
Conjugation	Un-conjugated
Alternate Names	PI3KBETA; PtdIns-3-kinase subunit p110-beta; PI3K-beta; PI3-kinase subunit beta; P110BETA; PI3K; Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit beta isoform; EC 2.7.1.153; p110beta; PtdIns-3-kinase subunit beta; Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subunit beta; PIK3C1; PI3Kbeta

Application Instructions

Application table

Application	Dilution
FACS	1:50
IP	1:50
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.

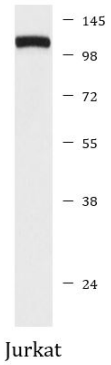
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150 mM NaCl, 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	PIK3CB
Gene Full Name	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit beta
Background	This gene encodes an isoform of the catalytic subunit of phosphoinositide 3-kinase (PI3K). These kinases are important in signaling pathways involving receptors on the outer membrane of eukaryotic cells and are named for their catalytic subunit. The encoded protein is the catalytic subunit for PI3Kbeta (PI3KB). PI3KB has been shown to be part of the activation pathway in neutrophils which have bound immune complexes at sites of injury or infection. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2011]
Function	Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns (Phosphatidylinositol), PtdIns4P (Phosphatidylinositol 4-phosphate) and 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. Involved in the activation of AKT1 upon stimulation by G-protein coupled receptors (GPCRs) ligands such as CXCL12, sphingosine 1-phosphate, and lysophosphatidic acid. May also act downstream receptor tyrosine kinases. Required in different signaling pathways for stable platelet adhesion and aggregation. Plays a role in platelet activation signaling triggered by GPCRs, alpha-IIb/beta-3 integrins (ITGA2B/ ITGB3) and ITAM (immunoreceptor tyrosine-based activation motif)-bearing receptors such as GP6. Regulates the strength of adhesion of ITGA2B/ ITGB3 activated receptors necessary for the cellular transmission of contractile forces. Required for platelet aggregation induced by F2 (thrombin) and thromboxane A2 (TXA2). Has a role in cell survival. May have a role in cell migration. Involved in the early stage of autophagosome formation. Modulates the intracellular level of PtdIns3P (Phosphatidylinositol 3-phosphate) and activates PIK3C3 kinase activity. May act as a scaffold, independently of its lipid kinase activity to positively regulate autophagy. May have a role in insulin signaling as scaffolding protein in which the lipid kinase activity is not required. May have a kinase-independent function in regulating cell proliferation and in clathrin-mediated endocytosis. Mediator of oncogenic signal in cell lines lacking PTEN. The lipid kinase activity is necessary for its role in oncogenic transformation. Required for the growth of ERBB2 and RAS driven tumors. [UniProt]
Calculated Mw	123 kDa
PTM	Phosphorylation at Ser-1070 down-regulates lipid kinase activity. [UniProt]
Cellular Localization	Cytoplasm. Nucleus. Note=Interaction with PIK3R2 is required for nuclear localization and export. [UniProt]

Images



ARG40867 anti-PIK3CB / p110 beta antibody WB image

Western blot: Jurkat cell lysate stained with ARG40867 anti-PIK3CB / p110 beta antibody.