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Anti-PI3 Kinase p110 beta PIK3CB Rabbit Monoclonal Antibody

Catalog # ABO14274

Product Information

Application	WB, IP, FC
Primary Accession	P42338
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-PI3 Kinase p110 beta PIK3CB Rabbit Monoclonal Antibody . Tested in WB, IP, Flow Cytometry applications. This antibody reacts with Human.

Additional Information

Gene ID	5291
Other Names	Phosphatidylinositol 4, 5-bisphosphate 3-kinase catalytic subunit beta isoform, PI3-kinase subunit beta, PI3K-beta, PI3Kbeta, PtdIns-3-kinase subunit beta, 2.7.1.153, Phosphatidylinositol 4, 5-bisphosphate 3-kinase 110 kDa catalytic subunit beta, PtdIns-3-kinase subunit p110-beta, p110beta, Serine/threonine protein kinase PIK3CB, 2.7.11.1, PIK3CB, PIK3C1
Calculated MW	122762
Application Details	WB 1:500-1:2000 IP 1:50 FC 1:50
Subcellular Localization	Cytoplasm. Nucleus. Interaction with PIK3R2 is required for nuclear localization and export.
Tissue Specificity	Expressed ubiquitously.
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: EIC-16
Immunogen	A synthesized peptide derived from human PI3 Kinase p110 beta
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at

4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name PIK3CB

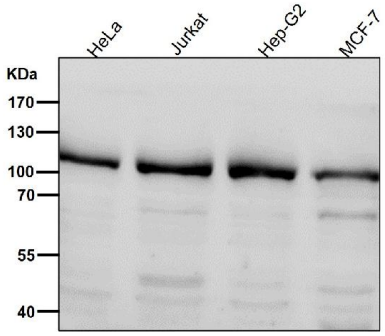
Synonyms PIK3C1

Function Phosphoinositide-3-kinase (PI3K) phosphorylates phosphatidylinositol derivatives at position 3 of the inositol ring to produce 3-phosphoinositides (PubMed:15135396). Uses ATP and PtdIns(4,5)P2 (phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3) (PubMed:15135396). 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 receptor (GPCR) 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. Also has a protein kinase activity showing autophosphorylation (PubMed:12502714).

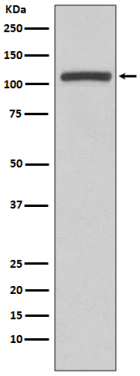
Cellular Location Cytoplasm. Nucleus Note=Interaction with PIK3R2 is required for nuclear localization and export

Tissue Location Expressed ubiquitously.

Images



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Western blot analysis of PI3 Kinase p110 beta expression in Jurkat cell lysate.

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