

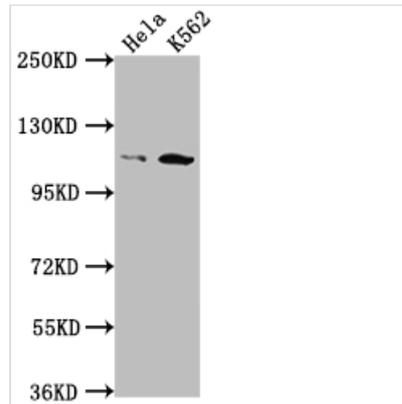


# PIK3CB Antibody

<b>Product Code</b>	CSB-RA240122A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P42338
<b>Immunogen</b>	A synthesized peptide derived from human PI3 Kinase p110 beta
<b>Species Reactivity</b>	Human
<b>Tested Applications</b>	ELISA, WB, IP; Recommended dilution: WB:1:500-1:5000, IP:1:200-1:1000
<b>Relevance</b>	<p>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 PDK1, 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.</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody



<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Cell biology; Immunology; Signal transduction
<b>Gene Names</b>	PIK3CB
<b>Clone No.</b>	5A9

**Image**

**Western Blot**

Positive WB detected in: HeLa whole cell lysate, K562 whole cell lysate

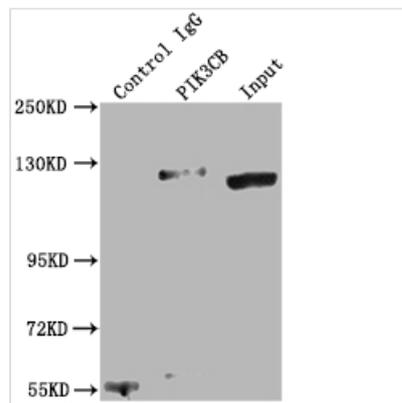
All lanes: PIK3CB antibody at 1:1500

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 123 kDa

Observed band size: 110 kDa


**Immunoprecipitating PIK3CB in K562 whole cell lysate**

Lane 1: Rabbit control IgG instead of CSB-RA240122A0HU in K562 whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)

Lane 2: CSB-RA240122A0HU(2µg)+ K562 whole cell lysate(500µg)

Lane 3: K562 whole cell lysate (10µg)

**Description**

CUSABIO cloned the DNA sequence encoding the PIK3CB monoclonal antibody into the plasmid and then transfected into the cell line for expression. The product was purified through the affinity-chromatography method and then got the recombinant PIK3CB monoclonal antibody. It belongs to the rabbit IgG. This PIK3CB antibody can be used to detect human PIK3CB protein in ELISA, WB, and IP applications.

PIK3CB, a component of the PI3K signaling pathway, is an oncoprotein involved in cancer development and progression. Qu Jianhua *et al.* have shown that PIK3CB is implicated in pancreatic adenocarcinoma (PAAD) metastasis through cell-matrix adhesion and proposed that PIK3CB is a promising therapeutic target for PAAD treatment.