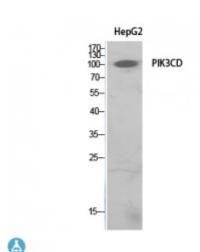


## Anti-PI 3-Kinase p11 delta antibody



**Description** Rabbit polyclonal to PI 3-Kinase p110delta.

Model STJ96902

**Host** Rabbit

**Reactivity** Human, Mouse

**Applications** ELISA, IHC, WB

**Immunogen** Synthesized peptide derived from human PI 3-Kinase p110delta.

**Immunogen Region** 41-90 aa, N-terminal

**Gene ID** <u>5293</u>

Gene Symbol PIK3CD

**Dilution range** WB 1:500-1:2000IHC-P 1:100-1:300ELISA 1:20000

Specificity PI 3-Kinase p110delta Polyclonal Antibody detects endogenous levels of PI 3-

Kinase p110delta protein.

**Tissue Specificity** Isoform 2 is expressed in normal thymus, lung and spleen tissues, and is

detected at low levels in normal lysates from colon and ovarian biopsies, at elevated levels in lysates from colorectal tumors and is abundantly expressed in some ovarian tumors (at protein level). Both isoform 1 and isoform 2 are widely expressed. Isoform 1 is expressed predominantly in leukocytes.

**Purification** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

**Note** For Research Use Only (RUO).

Protein Name Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit delta isoform

PI3-kinase subunit delta PI3K-delta PI3Kdelta PtdIns-3-kinase subunit delta Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subun

**Clonality** Polyclonal

**Conjugation** Unconjugated

**Isotype** IgG

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

**Concentration** 1 mg/ml

**Storage Instruction** Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:8977OMIM:602839</u>

Alternative Names Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit delta isoform

PI3-kinase subunit delta PI3K-delta PI3Kdelta PtdIns-3-kinase subunit delta Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subun

**Function** Phosphoinositide-3-kinase (PI3K) that phosphorylates PftdIns(4,5)P2

(Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domaincontaining proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Mediates immune responses. Plays a role in B-cell development, proliferation, migration, and function. Required for B-cell receptor (BCR) signaling. Mediates B-cell proliferation response to anti-IgM, anti-CD40 and IL4 stimulation. Promotes cytokine production in response to TLR4 and TLR9. Required for antibody class switch mediated by TLR9. Involved in the antigen presentation function of B-cells. Involved in B-cell chemotaxis in response to CXCL13 and sphingosine 1-phosphate (S1P). Required for proliferation, signaling and cytokine production of naive, effector and memory T-cells. Required for T-cell receptor (TCR) signaling. Mediates TCR signaling events at the immune synapse. Activation by TCR leads to antigen-dependent memory T-cell migration and retention to antigenic tissues. Together with PIK3CG participates in T-cell development. Contributes to T-helper cell expansion and differentiation. Required for T-cell migration mediated by homing receptors SELL/CD62L, CCR7 and S1PR1 and antigen dependent recruitment of T-cells. Together with PIK3CG is involved in natural killer (NK) cell development and migration towards the sites of inflammation. Participates in NK cell receptor activation. Have a role in NK cell maturation and cytokine production. Together with PIK3CG is involved in neutrophil chemotaxis and extravasation. Together with PIK3CG participates in neutrophil respiratory burst. Have important roles in mast-cell development and mast cell mediated allergic response. Involved in stem cell factor (SCF)-mediated proliferation, adhesion and migration. Required for allergen-IgE-induced degranulation and cytokine release. The lipid kinase activity is required for its biological function. Isoform 2 may be involved in stabilizing total RAS levels, resulting in increased ERK phosphorylation and increased PI3K activity.

**Cellular Localization** 

Cytoplasm

Post-translational Modifications

Autophosphorylation on Ser-1039 results in the almost complete inactivation of the lipid kinase activity.

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