

## Rabbit anti-Human, Mouse PIK3C2A Polyclonal Antibody | anti-PIK3C2A antibody

PIK3C2A Antibody

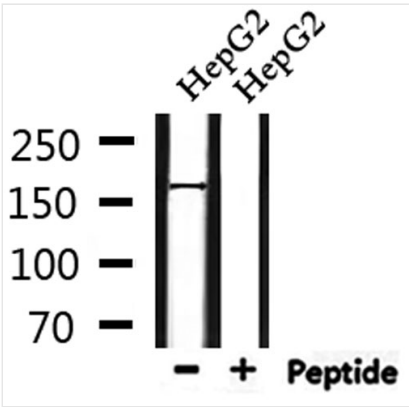
| CATALOG # | HOST   | REACTIVITY   | APPLICATIONS        |
|-----------|--------|--------------|---------------------|
| AAA323511 | Rabbit | Human, Mouse | ELISA, Western Blot |

### PRODUCT SYNONYMS

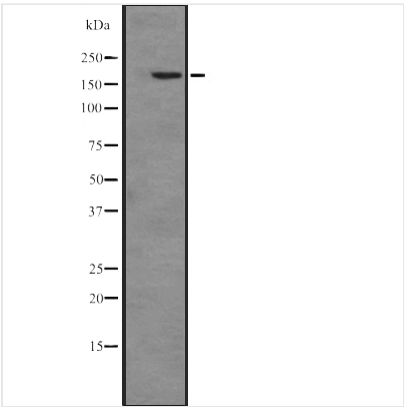
PIK3C2A; Polyclonal Antibody; PIK3C2A Antibody; C2 containing phosphatidylinositol kinase; C2 domain containing alpha polypeptide; Class 2 alpha polypeptide; CPK; Cpk m; DKFZp686L193; MGC142218; OTTHUMP00000231763; P3C2A\_HUMAN; Phosphatidylinositol 3 kinase class 2 alpha; Phosphatidylinositol-4-phosphate 3-kinase C2 domain-containing subunit alpha; Phosphoinositide 3 kinase class 2 alpha; Phosphoinositide 3 kinase; class 2; alpha polypeptide; Phosphoinositide 3-Kinase-C2-alpha; PI3-K-C2(ALPHA); PI3-K-C2A; PI3K-C2-alpha; PI3K-C2alpha; PI3KC 2 alpha; PIK3C 2A; Pik3c2a; PtdIns-3-kinase C2 subunit alpha; anti-PIK3C2A antibody

### PRODUCT SPECIFICATIONS

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                              | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Reactivity                                        | Human, Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Clonality                                         | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Isotype                                           | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Specificity                                       | PIK3C2A antibody detects endogenous levels of total PIK3C2A                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Purity/Purification                               | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.                                                                                                                                                                                                                                                                                                                                                                                                                |
| Form/Format                                       | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                |
| Concentration                                     | 1mg/ml (varies by lot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Sequence Length                                   | 1686                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Applicable Applications for anti-PIK3C2A antibody | ELISA, WB (Western Blot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Immunogen                                         | A synthesized peptide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Subcellular Location                              | Cell Membrane. Golgi Apparatus. Cytoplasmic Vesicle > Clathrin-Coated Vesicle. Nucleus. Cytoplasm. According to PubMed:10766823 and PubMed:11239472, it is found in the cell membrane, the golgi apparatus and in clathrin-coated vesicles. According to PubMed:17038310 it inserts preferentially into membranes containing PtdIns(4, 5)P2. According to PubMed:11606566, it is nuclear and cytoplasmic. Associated with RNA-containing structures. According to PubMed:14563213, it is mainly cytoplasmic. |
| Tissue Specificity                                | Expressed in columnar and transitional epithelia, mononuclear cells, smooth muscle cells, and endothelial cells lining capillaries and small venules (at protein level). Ubiquitously expressed, with highest levels in heart, placenta and ovary, and lowest levels in the kidney. Detected at low levels in islets of Langerhans from type 2 diabetes mellitus individuals.                                                                                                                                |
| Predicted Cross Reactivity                        | <b>Pig, Zebrafish, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Similarity                                        | Pig (100%), Zebrafish (91%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (90%)                                                                                                                                                                                                                                                                                                                                                                                            |
| Conjugation                                       | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



WB (Western Blot)  
Western blot analysis of extracts from HepG2, using PIK3C2A Antibody.



WB (Western Blot)  
Western blot analysis of PIK3C2A expression in A431 whole cell lysate. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-PIK3C2A antibody | <p>Description: Phosphorylates PtdIns, PtdIns4P and PtdIns(4, 5)P2. May play a role in clathrin-coated endocytic vesicle formation and EGF signaling cascade. May be involved in mitosis and UV-induced damage response. May be a downstream effector in insulin signaling cascade.</p> <p>Function: Generates phosphatidylinositol 3-phosphate (PtdIns3P) and phosphatidylinositol 3, 4-bisphosphate (PtdIns(3, 4)P2) that act as second messengers. Has a role in several intracellular trafficking events. Functions in insulin signaling and secretion. Required for translocation of the glucose transporter SLC2A4/GLUT4 to the plasma membrane and glucose uptake in response to insulin-mediated RHOQ activation. Regulates insulin secretion through two different mechanisms: involved in glucose-induced insulin secretion downstream of insulin receptor in a pathway that involves AKT1 activation and TBC1D4/AS160 phosphorylation, and participates in the late step of insulin granule exocytosis probably in insulin granule fusion. Synthesizes PtdIns3P in response to insulin signaling. Functions in clathrin-coated endocytic vesicle formation and distribution. Regulates dynamin-independent endocytosis, probably by recruiting EEA1 to internalizing vesicles. In neurosecretory cells synthesizes PtdIns3P on large dense core vesicles. Participates in calcium induced contraction of vascular smooth muscle by regulating myosin light chain (MLC) phosphorylation through a mechanism involving Rho kinase-dependent phosphorylation of the MLCP-regulatory subunit MYPT1. May play a role in the EGF signaling cascade. May be involved in mitosis and UV-induced damage response. Required for maintenance of normal renal structure and function by supporting normal podocyte function.</p> <p>Subunit Structure: Part of a complex with ERBB2 and EGFR. Interacts with clathrin trimers.</p> <p>Post-translational Modifications: Phosphorylated upon insulin stimulation; which may lead to enzyme activation (By similarity). Phosphorylated on Ser-259 during mitosis and upon UV irradiation; which does not change enzymatic activity but leads to proteasomal degradation. Ser-259 phosphorylation may be mediated by CDK1 or JNK, depending on the physiological state of the cell.</p> <p>Similarity: Belongs to the PI3/PI4-kinase family.</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------|
| NCBI GI #                        | 1008909354                                                                             |
| NCBI GeneID                      | 5286                                                                                   |
| NCBI Accession #                 | NP_001308307.1                                                                         |
| NCBI GenBank Nucleotide #        | NM_001321378.1                                                                         |
| UniProt Accession #              | O00443; Q14CQ9; B0LPH2; B4E2G4                                                         |
| Molecular Weight                 | Observed: 191 kDa<br>Predicted: 191 kDa                                                |
| NCBI Official Full Name          | phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha isoform 1 |
| NCBI Official Synonym Full Names | phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 alpha               |

|                               |                                                                              |
|-------------------------------|------------------------------------------------------------------------------|
| NCBI Official Symbol          | PIK3C2A                                                                      |
| NCBI Official Synonym Symbols | CPK; PI3-K-C2A; PI3K-C2alpha; PI3K-C2-alpha; PI3-K-C2(ALPHA)                 |
| NCBI Protein Information      | phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha |
| UniProt Protein Name          | Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha |
| UniProt Gene Name             | <b>PIK3C2A</b>                                                               |
| UniProt Synonym Gene Names    | PI3K-C2-alpha; PtdIns-3-kinase C2 subunit alpha                              |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/pik3c2a-antibody-western-blot-elisa/323511>