

Rabbit PI3K p85 alpha Polyclonal Antibody | anti-PI3Kp85alpha antibody

Phospho-PI3K p85 alpha (Tyr508) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329431	Rabbit	Human, Mouse, Rat Predicted Reactivity: Zebrafish (92%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (83%)	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

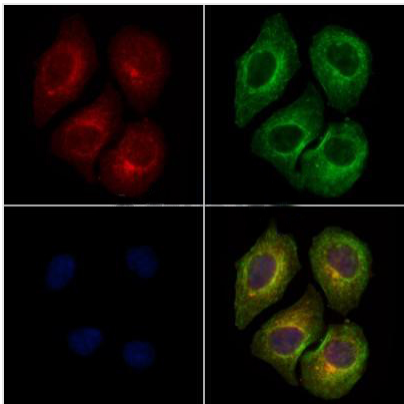
PI3K p85 alpha; Polyclonal Antibody; Phospho-PI3K p85 alpha (Tyr508) Antibody; GRB 1; GRB1; p85 alpha; p85; P85A_HUMAN; Phosphatidylinositol 3 kinase associated p 85 alpha; Phosphatidylinositol 3 kinase regulatory 1; Phosphatidylinositol 3 kinase regulatory subunit alpha; Phosphatidylinositol 3 kinase regulatory subunit polypeptide 1 (p85 alpha); Phosphatidylinositol 3-kinase 85kDa regulatory subunit alpha; Phosphatidylinositol 3-kinase regulatory subunit alpha; Phosphoinositide 3 kinase regulatory subunit 1 (alpha); Phosphoinositide 3 kinase regulatory subunit 1 (p85 alpha); Phosphoinositide 3 kinase regulatory subunit 1; Phosphoinositide 3 kinase regulatory subunit polypeptide 1 (p85 alpha); PI3 kinase p85 subunit alpha; PI3-kinase regulatory subunit alpha; PI3-kinase subunit p85-alpha; PI3K; PI3K regulatory subunit alpha; Pik3r1; Ptdlns 3 kinase p85 alpha; Ptdlns-3-kinase regulatory subunit alpha; Ptdlns-3-kinase regulatory subunit p85-alpha; anti-PI3Kp85alpha antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Zebrafish (92%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (83%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-PI3K p85 alpha (Tyr508) Antibody detects endogenous levels of PI3K p85 alpha only when phosphorylated at Tyr508. Tissue Specificity: Isoform 2 is expressed in skeletal muscle and brain, and at lower levels in kidney and cardiac muscle. Isoform 2 and isoform 4 are present in skeletal muscle (at protein level).
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-PI3Kp85alpha antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PI3K p85 alpha around the phosphorylation site of Tyr508.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Polyubiquitinated in T-cells by CBLB; which does not promote proteasomal degradation but impairs association with CD28 and CD3Z upon T-cell activation. Phosphorylated. Tyrosine phosphorylated in response to signaling by FGFR1, FGFR2, FGFR3 and FGFR4. Phosphorylated by CSF1R. Phosphorylated by ERBB4. Phosphorylated on tyrosine residues by TEK/TIE2. Dephosphorylated by PTPRJ. Phosphorylated by PIK3CA at Ser-608; phosphorylation is stimulated by insulin and PDGF. The relevance of phosphorylation by PIK3CA is however unclear (By similarity). Phosphorylated in response to KIT and KITLG/SCF. Phosphorylated by FGR.

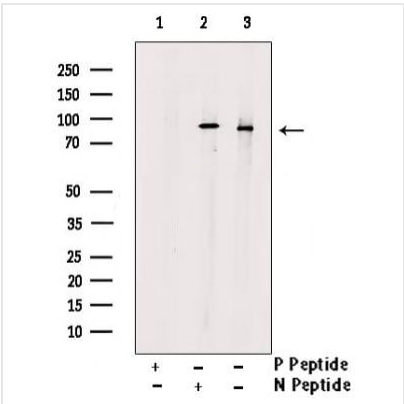
Subunit Structure	Heterodimer of a regulatory subunit PIK3R1 and a p110 catalytic subunit (PIK3CA, PIK3CB or PIK3CD). Interacts (via SH2 domains) with CDC88A/GIV (tyrosine-phosphorylated form); the interaction enables recruitment of PIK3R1 to the EGFR receptor, enhancing PI3K activity and cell migration. Interacts (via SH2 domain) with CSF1R (tyrosine phosphorylated). Interacts with PIK3R2; the interaction is dissociated in an insulin-dependent manner (By similarity). Interacts with XBP1 isoform 2; the interaction is direct and induces translocation of XBP1 isoform 2 into the nucleus in a ER stress- and/or insulin-dependent but PI3K-independent manner. Interacts with FER. Interacts (via SH2 domain) with TEK/TIE2 (tyrosine phosphorylated). Interacts with PTK2/FAK1 (By similarity). Interacts with phosphorylated TOM1L1. Interacts with phosphorylated LIME1 upon TCR and/or BCR activation. Interacts with SOCS7. Interacts with RUFY3. Interacts (via SH2 domain) with CSF1R (tyrosine phosphorylated). Interacts with LYN (via SH3 domain); this enhances enzyme activity (By similarity). Interacts with phosphorylated LAT, LAX1 and TRAT1 upon TCR activation. Interacts with CBLB. The SH2 domains interact with the YTHM motif of phosphorylated INSR in vitro. Also interacts with tyrosine-phosphorylated IGF1R in vitro. Interacts with CD28 and CD3Z upon T-cell activation. Interacts with IRS1 and phosphorylated IRS4, as well as with NISCH and HCST. Interacts with FASLG, KIT and BCR. Interacts with AXL, FGFR1, FGFR2, FGFR3 and FGFR4 (phosphorylated). Interacts with FGR and HCK. Interacts with PDGFRA (tyrosine phosphorylated) and PDGFRB (tyrosine phosphorylated). Interacts with ERBB4 (phosphorylated). Interacts with NTRK1 (phosphorylated upon ligand-binding). Interacts with FAM83B; activates the PI3K/AKT signaling cascade. Interacts with APPL1 and APPL2 (By similarity). Interacts with SRC. (Microbial infection) Interacts with HIV-1 Nef to activate the Nef associated p21-activated kinase (PAK). This interaction depends on the C-terminus of both proteins and leads to increased production of HIV. (Microbial infection) Interacts with HCV NS5A. (Microbial infection) Interacts with herpes simplex virus 1 UL46; this interaction activates the PI3K/AKT pathway. (Microbial infection) Interacts with herpes simplex virus 1 UL46 and varicella virus ORF12; this interaction activates the PI3K/AKT pathway.
Similarity	The SH3 domain mediates the binding to CBLB, and to HIV-1 Nef.Belongs to the PI3K p85 subunit family.
Subcellular Location	Cytoplasmic
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining HeLa cells(4h of LPS treatment) by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25 degree C. Samples were then incubated with primary Ab(AF4372 1:200) and mouse anti-beta tubulin Ab(T0023 1:200) for 1 hour at 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI(blue).



WB (Western Blot)

Western blot analysis of extracts from NIH/3T3-Src, using Phospho-P85 alpha(Tyr508) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PI3Kp85alpha antibody	Binds to activated (phosphorylated) protein-Tyr kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Necessary for the insulin-stimulated increase in glucose uptake and glycogen synthesis in insulin-sensitive tissues. Plays an important role in signaling in response to FGFR1, FGFR2, FGFR3, FGFR4, KITLG/SCF, KIT, PDGFRA and PDGFRB. Likewise, plays a role in ITGB2 signaling. Modulates the cellular response to ER stress by promoting nuclear translocation of XBP1 isoform 2 in a ER stress- and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in glucose tolerance improvement.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	335057534
NCBI GeneID	5295
NCBI Accession #	NP_001229395.1
NCBI GenBank Nucleotide #	NM_001242466.1
UniProt Accession #	P27986; Q15747; Q4VBZ7; Q53EM6; Q8IXA2; Q8N1C5; B3KT19; D3DWA0; E7EX19
Molecular Weight	83,598 Da
NCBI Official Full Name	phosphatidylinositol 3-kinase regulatory subunit alpha isoform 4
NCBI Official Synonym Full Names	phosphoinositide-3-kinase, regulatory subunit 1 (alpha)
NCBI Official Symbol	PIK3R1
NCBI Official Synonym Symbols	p85; AGM7; GRB1; p85-ALPHA
NCBI Protein Information	phosphatidylinositol 3-kinase regulatory subunit alpha; PI3-kinase subunit p85-alpha; PI3K regulatory subunit alpha; ptdIns-3-kinase regulatory subunit alpha; phosphoinositide-3-kinase regulatory subunit; phosphatidylinositol 3-kinase-associated p-85 alph
UniProt Protein Name	Phosphatidylinositol 3-kinase regulatory subunit alpha
UniProt Gene Name	PIK3R1
UniProt Synonym Gene Names	GRB1; PI3-kinase regulatory subunit alpha; PI3K regulatory subunit alpha; PtdIns-3-kinase regulatory subunit alpha; PI3-kinase subunit p85-alpha
UniProt Entry Name	P85A_HUMAN

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://stage.aaabiotech.com/polyclonal/pi3k-p85-alpha-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-western-blot-elisa/329431>