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Rabbit Anti-PIK3R1 antibody

SLM-52216R

Product Name	PIK3R1
Chinese Name	磷脂酰肌醇激酶 Recombinant rabbit monoclonal anti
Alias	P85A_HUMAN; Phosphatidylinositol 3-kinase regulatory subunit alpha; GRB1; PI3-kinase regulatory subunit alpha; PI3K regulatory subunit alpha; PtdIns-3-kinase regulatory subunit alpha; Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha (PI3-kinase subunit p85-alpha; PtdIns-3-kinase regulatory subunit p85-alpha); PI 3-kinase p85α; PI 3-kinase p85 α; PI 3-kinase p85-α; SH3_PI3K_p85alpha; PI3-kinase p85 subunit alpha; phosphoinositide-3-kinase regulatory subunit 1; p85; AGM7; IMD36; p85-ALPHA; PI 3 Kinase p85 alpha;
Research Area	Signal transduction
Immunogen Species	Rabbit
Clonality	Monoclonal
Clone NO.	2G4
React Species	Human,Mouse,Rat
Applications	WB=1:500-2000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	80kDa
Cellular localization	cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	Recombinant human PI 3 Kinase p85 alpha protein, around 600-700aa
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage	Shipped at 4℃. Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	Phosphatidylinositol 3-kinase phosphorylates the inositol ring of phosphatidylinositol at the 3-prime position. The enzyme comprises a 110 kD catalytic subunit and a regulatory subunit of either 85, 55, or 50 kD. This gene encodes the 85 kD regulatory subunit. Phosphatidylinositol 3-kinase plays an important role in the metabolic actions of insulin, and a mutation in this gene has been associated with insulin resistance. Alternative splicing of this gene results in four transcript variants encoding different isoforms. [provided by RefSeq, Jun 2011] **Function:** 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. **Subunit:** Heterodimer of a regulatory subunit PIK3R1 and a p110 catalytic subunit (PIK3CA, PIK3CB or PIK3CD). Interacts with FER. Interacts (via SH2 domain) with TEK/TIE2 (tyrosine phosphorylated). Interacts with PTK2/FAK1. 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. Interacts with phosphorylated LAT, LAX1 and TRAT1 upon TCR activation. Interacts with CBLB. 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. Interacts with HCV NS5A. 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). **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).

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. Phosphorylated in response to KIT and KITLG/SCF. Phosphorylated by FGR.

Similarity:
Belongs to the PI3K p85 subunit family.
Contains 1 Rho-GAP domain.
Contains 2 SH2 domains.

SWISS:
P27986

Gene ID:
5295

Database links:

Entrez Gene: 5295 Human

Entrez Gene: 18708 Mouse

Entrez Gene: 25513 Rat

Omim: 171833 Human

SwissProt: P27986 Human

SwissProt: P26450 Mouse

SwissProt: Q63787 Rat

Unigene: 132225 Human

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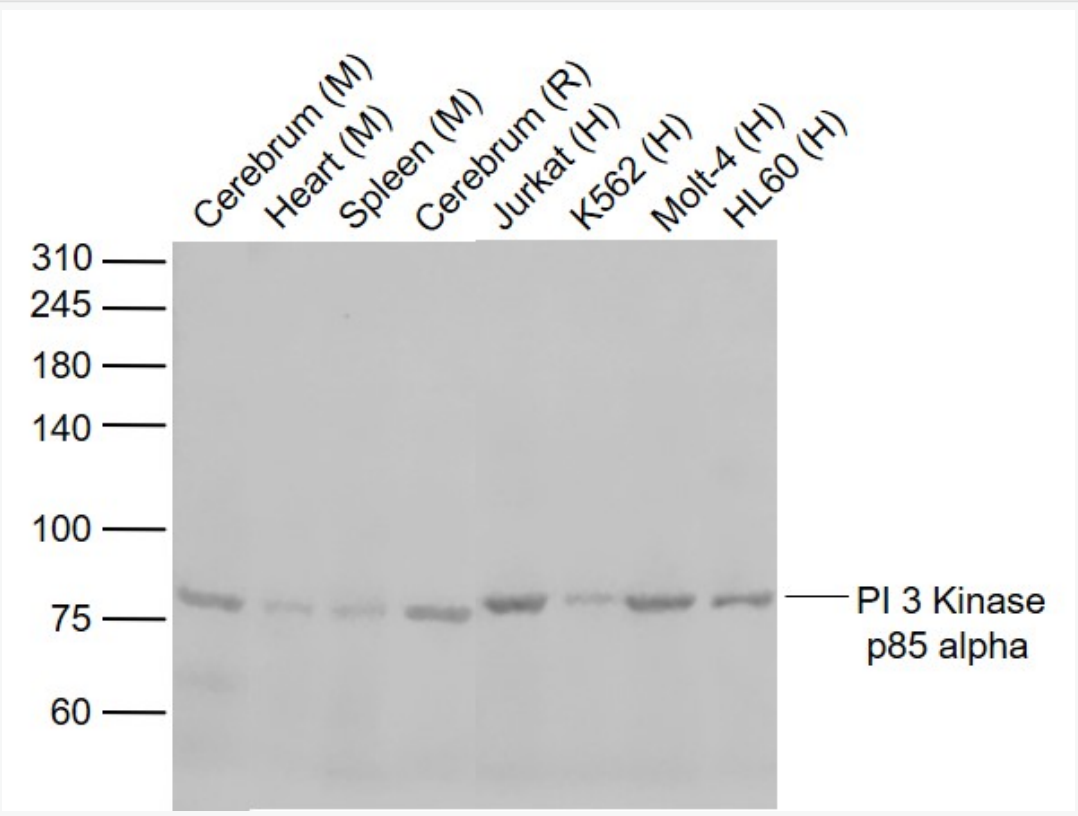
Product Picture



Sample:

Lane 1: Cerebrum (Mouse) Lysate at 40 ug

Lane 2: Heart (Mouse) Lysate at 40 ug

Lane 3: Spleen (Mouse) Lysate at 40 ug

Lane 4: Cerebrum (Rat) Lysate at 40 ug

Lane 5: Jurkat (Human) Cell Lysate at 30 ug

Lane 6: K562 (Human) Cell Lysate at 30 ug

Lane 7: Molt-4 (Human) Cell Lysate at 30 ug

Lane 8: HL60 (Human) Cell Lysate at 30 ug

Primary: Anti-PI 3 Kinase p85 alpha (SLM-52216R) at 1/1000 dilution

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Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 85 kD

Observed band size: 82 kD