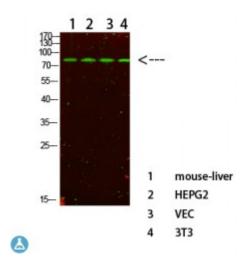


Anti-PI 3-kinase p8 alpha antibody



Description Rabbit polyclonal to PI 3-kinase p85alpha.

Model STJ99654

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Synthesized peptide derived from PI 3-kinase p85alpha

Immunogen Region 550-630aa

Gene ID <u>5295</u>

Gene Symbol PIK3R1

Dilution range WB 1:500-2000ELISA 1:10000-20000

Specificity This antibody detects endogenous levels of PI 3-kinase p85alpha.

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).

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 3-kinase regulatory subunit alpha PI3-kinase regulatory

subunit alpha PI3K regulatory subunit alpha PtdIns-3-kinase regulatory

subunit alpha Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha P

Molecular Weight 54/83 kDa

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 HGNC:8979OMIM:171833

Alternative Names Phosphatidylinositol 3-kinase regulatory subunit alpha PI3-kinase regulatory

subunit alpha PI3K regulatory subunit alpha PtdIns-3-kinase regulatory

subunit alpha Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha P

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. 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 .

Sequence and Domain Family The SH3 domain mediates the binding to CBLB, and to HIV-1 Nef.

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.