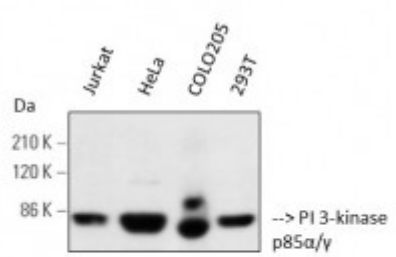
Anti-PI 3-kinase p8 alpha/gamma antibody



Western Blot (WB) analysis of 1)Jurkat, 2)HeLa, 3)COLO205, 4)293T cell lysate using PI 3-kinase p85α/γ antibody(STJ95078).

Description	PI 3-kinase p85alpha/gamma is a protein encoded by the PIK3R1 gene which is approximately 83,5 kDa. PI 3-kinase p85alpha/gamma is localised to the cytoplasm, nucleus and cis-Golgi network. It is involved in RET signalling, the IL-2 pathway, downstream signalling of activated FGFR2 and regulation of lipid metabolism. It binds to activated protein-Tyr kinases, through its SH2 domain, and acts as an adapter by mediating the association of the p110 catalytic unit to the plasma membrane. It is also necessary for the insulin-stimulated increase in glucose uptake and glycogen synthesis in insulin-sensitive tissues. PI 3-kinase p85alpha/gamma isoform 2 is expressed in skeletal muscle and brain. Mutations in the PIK3R1 gene may result in Short syndrome and Pasli disease. STJ95078 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of PI 3-kinase p85alpha/gamma protein.

Model	STJ95078
Host	Rabbit
Reactivity	Avian, Human, Mouse, Rat, Simian
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human PI 3-kinase p85/p55 around the non-phosphorylation site of Y458/199.
Immunogen Region	410-490 aa
Gene ID	5295
Gene Symbol	PIK3R1

Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000
Specificity	PI 3-kinase p85alpha/gamma Polyclonal Antibody detects endogenous levels of PI 3-kinase p85alpha/gamma protein.
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	83/54 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.

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