Pi 3-Kinase P85 (PIK3R1) Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	PI 3-Kinase p85 (PIK3R1), Monoclonal Antibody
Full Product Name	PI 3-Kinase p85, NT-SH3 (Phosphatidylinositol-PI-3-Kinase) (Biotin)
Product Gene Name	anti-PIK3R1 antibody
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	0.T.113
Host	Mouse
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Biotin.
Purity/Purification	Purified by ammonium sulfate precipitation and protein A chromatography.
Specificity	Recognizes human p85 alpha subunit of PI 3- Kinase. Does not recognize p85 beta subunit. Species crossreactivity: mouse and rat.
Preparation and Storage	Store at -20 degree C.
Molecular Weight	83,598 Da
Chromosome Location	Chromosome: 5; NC_000005.9 (67511584..67597649). Location: 5q13.1
OMIM	171833
3D Structure	ModBase 3D Structure for P27986
Immunogen	Recombinant human p85 alpha PI 3- Kinase expressed in E. coli.
Conjugate	Biotin
Product Categories/Family for anti-PIK3R1 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-PIK3R1 antibody	Immunocytochemistry (ICC), Immunoprecipitation (IP), Western Blot (WB)
Related Product Information for anti-PIK3R1 antibody	MBS6242575 is an antibody targeting PIK3R1. Also known as PI 3-Kinase p85, NT-SH3 (Phosphatidylinositol-PI-3-Kinase) (Biotin). Reactive in Human, Mouse, Rat. Host: Mouse.
Other Notes	Small volumes of anti-PIK3R1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PIK3R1. It may not necessarily be applicable to this product.

NCBI GI #	335057534
NCBI GeneID	5295
NCBI Accession #	NP_001229395.1

UniProt Primary Accession #	P27986
UniProt Secondary Accession #	Q15747; Q4VBZ7; Q53EM6; Q8IXA2; Q8N1C5; B3KT19; D3DWA0; E7EX19
UniProt Related Accession #	P27986
GenBank Nucleotide #	NM_181504
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
UniProt Protein Name	Phosphatidylinositol 3-kinase regulatory subunit alpha
UniProt Synonym Protein Names	Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha
Protein Family	Phosphatidylinositol 3-kinase regulatory
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
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
NCBI Summary for PIK3R1	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]

UniProt Comments for PIK3R1	PIK3R1: regulatory subunit of phosphoinositide-3-kinase. Mediates binding to a subset of tyrosine-phosphorylated proteins through its SH2 domain. Acts as an adapter, mediating the association of the p110 catalytic unit of the alpha, beta and delta enzymes to the plasma membrane, where p110 phosphorylates inositol lipids. May play an additional role in the regulation of the actin cytoskeleton. Necessary for the insulin-stimulated increase in glucose uptake and glycogen synthesis in insulin-sensitive tissues. Its SH2 domains interacts with the YTHM motif of phosphorylated INSR in vitro. Defects in PIK3R1 are a cause of severe insulin resistance. Four alternatively spliced isoforms have been described. Protein type: Enzyme, regulatory subunit; Kinase, lipid; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 5q13.1 Cellular Component: membrane; cytoplasm; plasma membrane; intercellular junction; phosphoinositide 3-kinase complex; nucleus; cytosol Molecular Function: insulin binding; insulin-like growth factor receptor binding; protein binding; ErbB-3 class receptor binding; neurotrophin TRKA receptor binding; insulin receptor substrate binding; phosphoinositide 3-kinase binding; phosphoinositide 3-kinase regulator activity; transmembrane receptor protein tyrosine kinase adaptor protein activity; transcription factor binding; protein phosphatase binding; insulin receptor binding Biological Process: negative regulation of osteoclast differentiation; phosphoinositide 3-kinase cascade; viral reproduction; nerve growth factor receptor signaling pathway; protein amino acid phosphorylation; T cell receptor signaling pathway; positive regulation of RNA splicing; regulation of phosphoinositide 3-kinase activity; NFAT protein import into nucleus; positive regulation of glucose import; phosphoinositide phosphorylation; phospholipid metabolic process; positive regulation of transcription factor import into nucleus; epidermal growth factor receptor signaling pathway; platelet activation; fibroblast growth factor receptor signaling pathway; phosphoinositide-mediated signaling; protein stabilization; negative regulation of cell-matrix adhesion; positive regulation of tumor necrosis factor production; DNA damage response, signal transduction resulting in induction of apoptosis; insulin-like growth factor receptor signaling pathway; induction of apoptosis via death domain receptors; cellular response to insulin stimulus; B cell differentiation; T cell costimulation; insulin receptor signaling pathway; phosphatidylinositol biosynthetic process; innate immune response; cell glucose homeostasis; positive regulation of transcription from RNA polymerase II promoter; vascular endothelial growth factor receptor signaling pathway; blood coagulation; leukocyte migration; positive regulation of cell migration; negative regulation of apoptosis Disease: Agammaglobulinemia 7, Autosomal Recessive; Short Syndrome; Immunodeficiency 36
Research Articles on PIK3R1	**1.** Introduction of a subset of the mutations identified in human glioblastoma, in the nSH2 and iSH2 domains, increases signaling through the PI3K pathway and promotes tumorigenesis of primary normal human astrocytes.
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