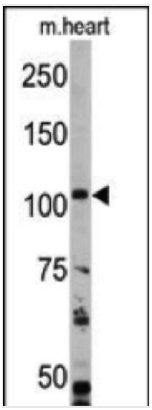
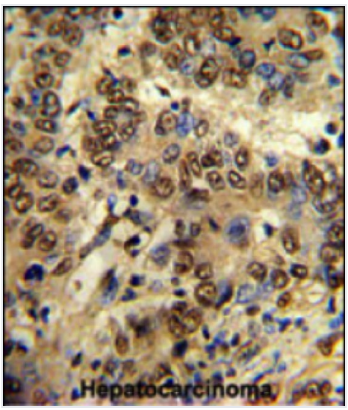
PIK3CA Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

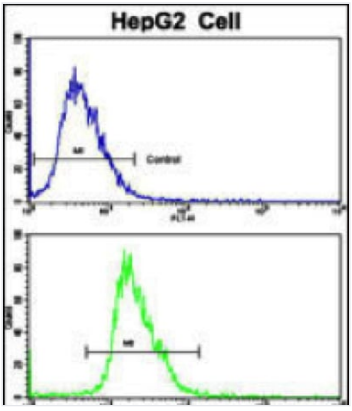
Product Name	PIK3CA, Polyclonal Antibody
Full Product Name	PIK3CA (Y317) (Phosphatidylinositol-4,5-bisphosphate 3-kinase Catalytic Subunit alpha Isoform, PtdIns-3-kinase Subunit alpha, PI3-kinase Subunit alpha, PI3K-alpha, Phosphatidylinositol-4,5-bisphosphate 3-kinase 110kD Catalytic Subunit alpha, PtdIns-3-kina
Product Gene Name	anti-PIK3CA antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Alkaline Phosphatase (AP).
Purity/Purification	Purified by Protein A Affinity Chromatography
Specificity	Recognizes human PK3CA.
Preparation and Storage	May be stored at 4 degree C for short-term only. Do not freeze alkaline phosphatase conjugates which could result in a substantial loss of enzymatic activity. Light sensitive. Aliquots are stable for at least 6 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	124,284 Da
OMIM	phenotype 615108
3D Structure	ModBase 3D Structure for P42336
Immunogen	KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 292-321 of human PK3CA, UniProt Accession #P42336. Species sequence homology: bovine and mouse
Conjugate	AP
Note	Preservative Free
Product Categories/Family for anti-PIK3CA antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-PIK3CA antibody	Western Blot (WB), ELISA (EIA), Immunohistochemistry (IHC)
Application Notes for anti-PIK3CA antibody	WB: 1:50-1:100 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-PIK3CA antibody	MBS6493166 is an antibody targeting PIK3CA. Also known as PIK3CA (Y317) (Phosphatidylinositol-4,5-bisphosphate 3-kinase Catalytic Subunit alpha Isoform, PtdIns-3-kinase Subunit alpha, PI3-kinase Subunit alpha, PI3K-alpha, Phosphatidylinositol-4,5-bisphosphate 3-kinase 110kD Catalytic Subunit alpha, PtdIns-3-kina. Reactive in Human. Host: Rabbit.
Product References and Citations for anti-PIK3CA antibody	1. Zhao, L., Oncogene 27(41), 5486-5496 (2008). 2. Volinia, S., Genomics 24(3), 472-477 (1994). 3. Hiles, I.D., Cell 70(3), 419-429 (1992).
Other Notes	Small volumes of anti-PIK3CA 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.



Western Blot (WB) of anti-PIK3CA antibody
Western Blot analysis of MBS628347 in mouse heart tissue lysates (35ug/lane). PK3CA (arrow) was detected using the purified Pab.



Immunohistochemistry (IHC) of anti-PIK3CA antibody
Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted withMBS628347, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry.



Flow Cytometry (FC/FACS) of anti-PIK3CA antibody
Flow cytometric analysis of HepG2 cells using MBS628347 (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PIK3CA. It may not necessarily be applicable to this product.

NCBI GI #	54792082
NCBI GeneID	5290
NCBI Accession #	NP_006209
UniProt Primary Accession #	P42336
UniProt Secondary Accession #	P42337; P32871
UniProt Related Accession #	P42336
GenBank Nucleotide #	NM_006218
NCBI Official Full Name	phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform
NCBI Official Synonym Full Names	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha
NCBI Official Symbol	PIK3CA
NCBI Official Synonym Symbols	MCM; CWS5; MCAP; PI3K; CLOVE; MCMTC; p110-alpha
UniProt Protein Name	Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform

UniProt Synonym Protein Names	Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subunit alpha; PtdIns-3-kinase subunit p110-alpha; p110alpha; Phosphoinositide-3-kinase catalytic alpha polypeptide; Serine/threonine protein kinase PIK3CA (EC:2.7.11.1)
Protein Family	Phosphatidylinositol 4,5-bisphosphate 3-kinase
UniProt Gene Name	PIK3CA
UniProt Synonym Gene Names	PI3-kinase subunit alpha; PI3K-alpha; PI3Kalpha; PtdIns-3-kinase subunit alpha; PtdIns-3-kinase subunit p110-alpha; p110alpha
UniProt Entry Name	PK3CA_HUMAN
NCBI Protein Information	phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform; PI3-kinase p110 subunit alpha; PI3K-alpha; phosphatidylinositol 3-kinase, catalytic, 110-KD, alpha; phosphatidylinositol 3-kinase, catalytic, alpha polypeptide; phosphatidylin
UniProt Comments for PIK3CA	PIK3CA: Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns (Phosphatidylinositol), PtdIns4P (Phosphatidylinositol 4- phosphate) and PtdIns(4,5)P2 (Phosphatidylinositol 4,5- bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Participates in cellular signaling in response to various growth factors. Involved in the activation of AKT1 upon stimulation by receptor tyrosine kinases ligands such as EGF, insulin, IGF1, VEGFA and PDGF. Involved in signaling via insulin-receptor substrate (IRS) proteins. Essential in endothelial cell migration during vascular development through VEGFA signaling, possibly by regulating RhoA activity. Required for lymphatic vasculature development, possibly by binding to RAS and by activation by EGF and FGF2, but not by PDGF. Regulates invadopodia formation in breast cancer cells through the PDPK1- AKT1 pathway. Participates in cardiomyogenesis in embryonic stem cells through a AKT1 pathway. Participates in vasculogenesis in embryonic stem cells through PDK1 and protein kinase C pathway. Has also serine-protein kinase activity: phosphorylates PIK3R1 (p85alpha regulatory subunit), EIF4EBP1 and HRAS. Heterodimer of a catalytic subunit PIK3CA and a p85 regulatory subunit (PIK3R1, PIK3R2 or PIK3R3). Interacts with IRS1 in nuclear extracts. Interacts with RUFY3. Interacts with RASD2. Interacts with APPL1. Interacts with HRAS1 and KRAS. Interaction with HRAS1/KRAS is required for PI3K pathway signaling and cell proliferation stimulated by EGF and FGF2. Belongs to the PI3/PI4-kinase family. Protein type: Motility/polarity/chemotaxis; Oncoprotein; EC 2.7.11.1; EC 2.7.1.153; Kinase, lipid; Carbohydrate Metabolism - inositol phosphate Chromosomal Location of Human Ortholog: 3q26.3 Cellular Component: lamellipodium; plasma membrane; phosphoinositide 3-kinase complex; cytosol Molecular Function: protein serine/threonine kinase activity; protein binding; phosphatidylinositol-4,5-bisphosphate 3-kinase activity; insulin receptor substrate binding; 1-phosphatidylinositol-3-kinase activity; kinase activity; protein kinase activator activity; ATP binding; phosphatidylinositol-4-phosphate 3-kinase activity; phosphoinositide 3-kinase activity Biological Process: epidermal growth factor receptor signaling pathway; platelet activation; phosphoinositide-mediated signaling; fibroblast growth factor receptor signaling pathway; nerve growth factor receptor signaling pathway; regulation of multicellular organism growth; glucose metabolic process; positive regulation of peptidyl-serine phosphorylation; T cell receptor signaling pathway; protein amino acid phosphorylation; vasculature development; phosphoinositide phosphorylation; positive regulation of protein kinase activity; phospholipid metabolic process; T cell costimulation; phosphatidylinositol biosynthetic process; protein kinase B signaling cascade; insulin receptor signaling pathway; innate immune response; endothelial cell migration; negative regulation of neuron apoptosis; angiogenesis; blood coagulation; vascular endothelial growth factor receptor signaling pathway; leukocyte migration; cardiac muscle contraction Disease: Cowden Syndrome 5; Gastric Cancer; Keratosis, Seborrheic; Breast Cancer; Lung Cancer; Ovarian Cancer; Congenital Lipomatous Overgrowth, Vascular Malformations, And Epidermal Nevi; Colorectal Cancer; Megalencephaly-capillary Malformation-polymicrogyria Syndrome; Hepatocellular Carcinoma; Nevus, Epidermal

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