PIK3CA Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PIK3CA, Polyclonal Antibody
Full Product Name	PIK3CA Antibody
Product Gene Name	anti-PIK3CA antibody
Product Synonym Names	5-bisphosphate 3-kinase 110 kDa catalytic subunit alpha; 5-bisphosphate 3-kinase catalytic subunit alpha isoform; caPI3K; CLOVE; CWS5; MCAP; MCM; MCMTC; MGC142161; MGC142163; p110 alpha; p110alpha; Phosphatidylinositol 3 kinase catalytic alpha polypeptide; Phosphatidylinositol 3 kinase catalytic 110 KD alpha; Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit alpha; Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit alpha isoform; Phosphatidylinositol 4; 5 bisphosphate 3 kinase 110 kDa catalytic subunit alpha; Phosphatidylinositol-4; Phosphoinositide 3 kinase catalytic alpha polypeptide; PI3 kinase p110 subunit alpha; PI3-kinase subunit alpha; PI3K; PI3K-alpha; PI3KC A; PIK3C A; Pik3ca; PK3CA; PK3CA_HUMAN; PtdIns 3 kinase p110; PtdIns-3-kinase subunit alpha; PtdIns-3-kinase subunit p110-alpha; Serine/threonine protein kinase PIK3CA
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Purity/Purification	Immunogen affinity purified
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Molecular Weight	110kDa
OMIM	114480
3D Structure	ModBase 3D Structure for P42336
Immunogen	A synthesized peptide derived from human PIK3CA
Storage Buffer	Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PIK3CA antibody	Western Blot (WB)
Application Notes for anti-PIK3CA antibody	WB: 1:500-1:2000
Related Product Information for anti-PIK3CA antibody	MBS8529209 is an antibody targeting PIK3CA. Also known as PIK3CA Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.
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.

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_006209.2
UniProt Primary Accession #	P42336
UniProt Secondary Accession #	Q14CW1; Q99762
UniProt Related Accession #	P42336
GenBank Nucleotide #	NM_006218.3
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; PI3K-alpha; 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
NCBI Protein Information	phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform
NCBI Summary for PIK3CA	Phosphatidylinositol 3-kinase is composed of an 85 kDa regulatory subunit and a 110 kDa catalytic subunit. The protein encoded by this gene represents the catalytic subunit, which uses ATP to phosphorylate PtdIns, PtdIns4P and PtdIns(4,5)P2. This gene has been found to be oncogenic and has been implicated in cervical cancers. A pseudogene of this gene has been defined on chromosome 22. [provided by RefSeq, Apr 2016]
UniProt Comments for 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 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. Also has serine-protein kinase activity: phosphorylates PIK3R1 (p85alpha regulatory subunit), EIF4EBP1 and HRAS. Plays a role in the positive regulation of phagocytosis and pinocytosis ().
Research Articles on PIK3CA	**1.** Mosaic gain of function mutation in PIK3CA gene leads to abnormal AKT-mTOR pathway activation and is responsible of the clinical manifestations.
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