Phosphatidylinositol 4-Phosphate 3-Kinase C2 Domain-Containing Subunit Alpha (PIK3C2A) Mouse Recombinant Protein

PRODUCT OVERVIEW

Product Name	Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha (Pik3c2a), Recombinant Protein
Full Product Name	Recombinant Mouse Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha (Pik3c2a) , partial
Product Gene Name	Pik3c2a recombinant protein
Product Synonym Gene Name	Pik3c2a
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	187,526 Da
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q61194
Species	Mouse
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Pik3c2a recombinant protein	This protein belongs to the phosphoinositide 3-kinase (PI3K) family. PI3-kinases play roles in signaling pathways involved in cell proliferation, oncogenic transformation, cell survival, cell migration, and intracellular protein trafficking. This protein contains a lipid kinase catalytic domain as well as a C-terminal C2 domain, a characteristic of class II PI3-kinases. C2 domains act as calcium-dependent phospholipid binding motifs that mediate translocation of proteins to membranes, and may also mediate protein-protein interactions. The PI3-kinase activity of this protein is not sensitive to nanomolar levels of the inhibitor wortmanin. This protein was shown to be able to be activated by insulin and may be involved in integrin-dependent signaling.
Other Notes	Small volumes of Pik3c2a recombinant protein 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.
Searchable Terms for Pik3c2a purchase	MBS1350953 is a recombinant protein targeting Pik3c2a. Also known as Recombinant Mouse Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha (Pik3c2a) , partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Pik3c2a. It may not necessarily be applicable to this product.

NCBI GI #	145279206
NCBI GeneID	18704
NCBI Accession #	NP_035213.2

UniProt Primary Accession #	Q61194
UniProt Secondary Accession #	Q61182
UniProt Related Accession #	Q61194
GenBank Nucleotide #	NM_011083.2
NCBI Official Full Name	phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha
NCBI Official Synonym Full Names	phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 alpha
NCBI Official Symbol	Pik3c2a
NCBI Official Synonym Symbols	Cpk-m; PI3KC2
UniProt Protein Name	Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha
UniProt Synonym Protein Names	Cpk-m; Phosphoinositide 3-kinase-C2-alpha; p170
Protein Family	Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing
UniProt Gene Name	Pik3c2a
UniProt Synonym Gene Names	Cpk; PI3K-C2-alpha; PtdIns-3-kinase C2 subunit alpha
NCBI Protein Information	phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha
UniProt Comments for Pik3c2a	Generates phosphatidylinositol 3-phosphate (PtdIns3P) and phosphatidylinositol 3,4-bisphosphate (PtdIns(3,4)P2) that act as second messengers. Has a role in several intracellular trafficking events. Functions in insulin signaling and secretion. Required for translocation of the glucose transporter SLC2A4/GLUT4 to the plasma membrane and glucose uptake in response to insulin-mediated RHOQ activation. Regulates insulin secretion through two different mechanisms: involved in glucose-induced insulin secretion downstream of insulin receptor in a pathway that involves AKT1 activation and TBC1D4/AS160 phosphorylation, and participates in the late step of insulin granule exocytosis probably in insulin granule fusion. Synthesizes PtdIns3P in response to insulin signaling. Functions in clathrin-coated endocytic vesicle formation and distribution. Regulates dynamin-independent endocytosis, probably by recruiting EEA1 to internalizing vesicles. In neurosecretory cells synthesizes PtdIns3P on large dense core vesicles. Participates in calcium induced contraction of vascular smooth muscle by regulating myosin light chain (MLC) phosphorylation through a mechanism involving Rho kinase-dependent phosphorylation of the MLCP-regulatory subunit MYPT1. May play a role in the EGF signaling cascade. May be involved in mitosis and UV-induced damage response. Required for maintenance of normal renal structure and function by supporting normal podocyte function.
Research Articles on Pik3c2a	**1.** This study adds to this divergence by indicating a nonredundant role for PI3KC2alpha, with no role for PI3KC2beta, in regulating platelet OCS structure and overall platelet-dependent thrombus stability.
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