Phosphatidylinositol 3-Kinase Regulatory Subunit Alpha (PIK3R1) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Phosphatidylinositol 3-kinase regulatory subunit alpha (Pik3r1), Recombinant Protein
Full Product Name	Recombinant Rat Phosphatidylinositol 3-kinase regulatory subunit alpha (Pik3r1)
Product Gene Name	Pik3r1 recombinant protein
Product Synonym Gene Name	Pik3r1
Sequence	SAEGYQYRAL YDYKKEREED IDLHLGDILT VNKGSLVALG FSDGQEARPE DIGWLNGYNE TTGERGDFPG TYVEYIGRKR ISPPTPKPRP PRPLPVAPGS SKTEADTEQP VLTLPDLAEQ FAPPDVAPPL LIKLLEAIEK KGLECSTLYR TQSSSNPAEL RQLLDCDPPS VDLDVFDEHV LADAFKRYLA DLPNPVIPVA VYNEMMSLAQ EVPSSEDYIQ LLKKLIRSPN IPHQYWLTLQ YLLKHFFKLS QASSKNLLNA RALSEIFSHV LFRFPAASSD NTEHLIKAVE LLISAEWSER QPAPALPPKP PKPTSIANNS MNNNMSLQDA EWYWGDISRE EVNEKLRDTA DGTFLVRDAS TKMHGDYTLT LRKGGNNKLI KIFHRDGKYG FSDPLTFNSV VELINHYRNE SLAQYNPKLD VKLLYPVSKY QQDQVVKEDN IEAVGKKLHE YNTQFQEKSR EYDRLYEEYT RTSQEIQMKR TAIEAFNDTI KIFEEQCHPQ ERYSKDYIEK FKREGNEKEI QRIMHNHDKL KSRISEIIDS RRRLEEDLKK QAAEYREIDK RMNSIKPDLI QLRKTRDQYL MWLTQKGVRQ KKLNEWLGNE NTEDQYSLVD DDEDLPHHDE KTWNVGSSNR NKAENLLRGK RDGTFLVRES SKQGCYACSV VVDGEVKHCV INKTATGYGF AEPYNLYSSL KELVLHYQHT SLVQHNDSLN VTLAYPVYAQ QRR
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	49,959 Da
Sequence Positions	2-724, full length protein
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 Q63787
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Pik3r1 recombinant protein	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 three transcript variants encoding different isoforms.
Other Notes	Small volumes of Pik3r1 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 Pik3r1 purchase	MBS1471959 is a recombinant protein targeting Pik3r1. Also known as Recombinant Rat Phosphatidylinositol 3-kinase regulatory subunit alpha (Pik3r1). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Pik3r1. It may not necessarily be applicable to this product.

NCBI GI #	6981358
NCBI GeneID	25513
NCBI Accession #	NP_037137.1
UniProt Primary Accession #	Q63787
UniProt Secondary Accession #	O55085; P70544; Q63790
UniProt Related Accession #	Q63787
GenBank Nucleotide #	NM_013005.1
NCBI Official Full Name	phosphatidylinositol 3-kinase regulatory subunit alpha
NCBI Official Synonym Full Names	phosphoinositide-3-kinase regulatory subunit 1
NCBI Official Symbol	Pik3r1
NCBI Official Synonym Symbols	PI3KA
UniProt Protein Name	Phosphatidylinositol 3-kinase regulatory subunit alpha
UniProt Synonym Protein Names	Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha; PI3-kinase subunit p85-alpha; PtdIns-3-kinase regulatory subunit p85-alpha
Protein Family	Phosphatidylinositol 3-kinase regulatory
UniProt Gene Name	Pik3r1
UniProt Synonym Gene Names	PI3-kinase regulatory subunit alpha; PI3K regulatory subunit alpha; PtdIns-3-kinase regulatory subunit alpha; PI3-kinase subunit p85-alpha; PtdIns-3-kinase regulatory subunit p85-alpha
NCBI Protein Information	phosphatidylinositol 3-kinase regulatory subunit alpha
UniProt Comments for Pik3r1	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 in a ER stress-and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in glucose tolerance improvement ().
Research Articles on Pik3r1	**1.** Its downregulation may be involved in the development of sex hormone disorder and calcium loss.
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