PIK3C2G siRNA – Phosphatidylinositol 4-Phosphate 3-Kinase C2 Domain-Containing Subunit Gamma Isoform 1 (Human)

PRODUCT OVERVIEW

Product Name	PIK3C2G, siRNA
Full Product Name	PIK3C2G siRNA (Human)
Product Gene Name	PIK3C2G sirna
Product Synonym Names	Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit gamma; PI3K-C2-gamma; PtdIns-3-kinase C2 subunit gamma; Phosphoinositide 3-kinase-C2-gamma
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	PIK3C2G siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	165,715 Da
OMIM	609001
3D Structure	ModBase 3D Structure for O75747
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of human PIK3C2G gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for PIK3C2G sirna	RNA Interference (RNAi)
Related Product Information for PIK3C2G sirna	MBS8227541 is an siRNA targeting PIK3C2G. Also known as PIK3C2G siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit PIK3C2G expression using RNA interference
Other Notes	Small volumes of PIK3C2G sirna 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 PIK3C2G. It may not necessarily be applicable to this product.

NCBI GI #	571026668
NCBI GeneID	5288
NCBI Accession #	NP_001275701.1
UniProt Primary Accession #	O75747
UniProt Secondary Accession #	A1L3U0
UniProt Related Accession #	O75747
GenBank Nucleotide #	NM_001288772.1
NCBI Official Full Name	phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit gamma isoform 1
NCBI Official Synonym Full Names	phosphatidylinositol-4-phosphate 3-kinase, catalytic subunit type 2 gamma
NCBI Official Symbol	PIK3C2G
NCBI Official Synonym Symbols	PI3K-C2GAMMA; PI3K-C2-gamma
UniProt Protein Name	Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit gamma
UniProt Synonym Protein Names	Phosphoinositide 3-kinase-C2-gamma
Protein Family	Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing
UniProt Gene Name	PIK3C2G
UniProt Synonym Gene Names	PI3K-C2-gamma; PtdIns-3-kinase C2 subunit gamma
UniProt Entry Name	P3C2G_HUMAN
NCBI Protein Information	phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit gamma
NCBI Summary for PIK3C2G	The protein encoded by this gene 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. This gene may play a role in several diseases, including type II diabetes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]
UniProt Comments for PIK3C2G	PIK3C2G: Generates phosphatidylinositol 3-phosphate (PtdIns3P) and phosphatidylinositol 3,4-bisphosphate (PtdIns(3,4)P2) that act as second messengers. May play a role in SDF1A-stimulated chemotaxis. Belongs to the PI3/PI4-kinase family. Protein type: EC 2.7.1.154; Carbohydrate Metabolism - inositol phosphate; Motility/polarity/chemotaxis; Kinase, lipid Chromosomal Location of Human Ortholog: 12p12 Cellular Component: plasma membrane; cytosol; phosphoinositide 3-kinase complex Molecular Function: phosphatidylinositol phosphate kinase activity; 1-phosphatidylinositol-3-kinase activity; ATP binding; phosphatidylinositol-4-phosphate 3-kinase activity; phosphoinositide binding Biological Process: phosphoinositide-mediated signaling; phosphoinositide phosphorylation; phospholipid metabolic process; phosphatidylinositol biosynthetic process; chemotaxis
Research Articles on PIK3C2G	**1.** Data indicate substituents of benzensulfonamide and pyrazine as phosphoinositide 3-kinase-C2gamma (PI3K-C2GAMMA) inhibitors.

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