FGD5 siRNA – FYVE, Rhogef and Ph Domain-Containing Protein 5 (Human)

PRODUCT OVERVIEW

Product Name	FGD5, siRNA
Full Product Name	FGD5 siRNA (Human)
Product Gene Name	FGD5 sirna
Product Synonym Names	ZFYVE23; FYVE. RhoGEF and PH domain-containing protein 5; Zinc finger FYVE domain-containing protein 23
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	FGD5 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	61,238 Da
OMIM	614788
3D Structure	ModBase 3D Structure for Q6ZNL6
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 FGD5 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 FGD5 sirna	RNA Interference (RNAi)
Related Product Information for FGD5 sirna	MBS8202698 is an siRNA targeting FGD5. Also known as FGD5 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit FGD5 expression using RNA interference
Other Notes	Small volumes of FGD5 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 FGD5. It may not necessarily be applicable to this product.

NCBI GI #	194018497
NCBI GeneID	152273
NCBI Accession #	NP_689749.3
UniProt Primary Accession #	Q6ZNL6
UniProt Secondary Accession #	Q6MZY1; Q7Z303; Q8IYP3; Q8N861; Q8N8G4; B3KVQ3
UniProt Related Accession #	Q6ZNL6
GenBank Nucleotide #	NM_152536.3
NCBI Official Full Name	FYVE, RhoGEF and PH domain-containing protein 5
NCBI Official Synonym Full Names	FYVE, RhoGEF and PH domain containing 5
NCBI Official Symbol	FGD5
NCBI Official Synonym Symbols	ZFYVE23
UniProt Protein Name	FYVE, RhoGEF and PH domain-containing protein 5
UniProt Synonym Protein Names	Zinc finger FYVE domain-containing protein 23
Protein Family	FYVE, RhoGEF and PH domain-containing protein
UniProt Gene Name	FGD5
UniProt Synonym Gene Names	ZFYVE23
UniProt Entry Name	FGD5_HUMAN
NCBI Protein Information	FYVE, RhoGEF and PH domain-containing protein 5
UniProt Comments for FGD5	FGD5: Activates CDC42, a member of the Ras-like family of Rho- and Rac proteins, by exchanging bound GDP for free GTP. Mediates VEGF-induced CDC42 activation. May regulate proangiogenic action of VEGF in vascular endothelial cells, including network formation, directional movement and proliferation. May play a role in regulating the actin cytoskeleton and cell shape. 2 isoforms of the human protein are produced by alternative splicing. Protein type: GEFs; GEFs, Rac/Rho Chromosomal Location of Human Ortholog: 3p25.1 Cellular Component: ruffle; Golgi apparatus; cytoskeleton; lamellipodium; endoplasmic reticulum; cytoplasm; early endosome Molecular Function: small GTPase binding; protein binding; Rho guanyl-nucleotide exchange factor activity; guanyl-nucleotide exchange factor activity; metal ion binding Biological Process: regulation of cell shape; filopodium formation; cytoskeleton organization and biogenesis; actin cytoskeleton organization and biogenesis; positive regulation of GTPase activity
Research Articles on FGD5	**1.** FGD5 regulates endothelial adhesion, survival, and angiogenesis by modulating phosphatidylinositol 3-kinase signaling.
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