WDPCP siRNA – Wd Repeat-Containing and Planar Cell Polarity Effector Protein Fritz Homolog (Mouse)

PRODUCT OVERVIEW

Product Name	WDPCP, siRNA
Full Product Name	WDPCP siRNA (Mouse)
Product Gene Name	WDPCP sirna
Product Synonym Names	WD repeat-containing and planar cell polarity effector protein fritz homolog; mFrtz; Homolog-13; WD repeat-containing and planar cell polarity effector protein
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	WDPCP siRNA (Mouse) 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	72,326 Da
3D Structure	ModBase 3D Structure for Q8C456
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 mouse WDPCP 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 WDPCP sirna	RNA Interference (RNAi)
Related Product Information for WDPCP sirna	MBS8236733 is an siRNA targeting WDPCP. Also known as WDPCP siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit WDPCP expression using RNA interference
Other Notes	Small volumes of WDPCP 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 WDPCP. It may not necessarily be applicable to this product.

NCBI GI #	31981772
NCBI GeneID	216560
NCBI Accession #	NP_663400.2
UniProt Primary Accession #	Q8C456
UniProt Secondary Accession #	Q8BRR5; Q91ZJ2
UniProt Related Accession #	Q8C456
GenBank Nucleotide #	NM_145425.3
NCBI Official Full Name	WD repeat-containing and planar cell polarity effector protein fritz homolog
NCBI Official Synonym Full Names	WD repeat containing planar cell polarity effector
NCBI Official Symbol	Wdpcp
NCBI Official Synonym Symbols	AV249152
UniProt Protein Name	WD repeat-containing and planar cell polarity effector protein fritz homolog
UniProt Synonym Protein Names	Homolog-13; WD repeat-containing and planar cell polarity effector protein
Protein Family	WD repeat-containing and planar cell polarity effector protein
UniProt Gene Name	Wdpcp
UniProt Synonym Gene Names	mFrtz
UniProt Entry Name	FRITZ_MOUSE
NCBI Protein Information	WD repeat-containing and planar cell polarity effector protein fritz homolog
UniProt Comments for WDPCP	LOC51057: Probable effector of the planar cell polarity signaling pathway which regulates the septin cytoskeleton in both ciliogenesis and collective cell movements. Defects in WDPCP are the cause of Bardet-Biedl syndrome type 15 (BBS15). Bardet-Biedl syndrome (BBS) is a genetically heterogeneous, autosomal recessive disorder characterized by usually severe pigmentary retinopathy, early onset obesity, polydactyly, hypogenitalism, renal malformation and mental retardation. Secondary features include diabetes mellitus, hypertension and congenital heart disease. Bardet-Biedl syndrome inheritance is autosomal recessive, but three mutated alleles (two at one locus, and a third at a second locus) may be required for clinical manifestation of some forms of the disease. Mutations in WDPCP may act as modifiers of the phenotypic expression of Bardet-Biedl syndrome and Meckel syndrome by interacting in trans with primary BBS and MKS loci. Belongs to the WD repeat fritz family. 3 isoforms of the human protein are produced by alternative splicing. Cellular Component: cytoskeleton; cell projection; membrane; cytoplasm; plasma membrane; cilium Molecular Function: protein binding Biological Process: nervous system development; establishment of protein localization; smoothened signaling pathway; camera-type eye development; cell projection organization and biogenesis; auditory receptor cell morphogenesis; regulation of focal adhesion formation; cilium biogenesis; embryonic organ development; palate development; embryonic digit morphogenesis; kidney development
Research Articles on WDPCP	**1.** Wdpcp is required for Sept2 recruitment to actin filaments.
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