SPIRE1 siRNA – Protein Spire Homolog 1 Isoform a (Human)

PRODUCT OVERVIEW

Product Name	SPIRE1, siRNA
Full Product Name	SPIRE1 siRNA (Human)
Product Gene Name	SPIRE1 sirna
Product Synonym Names	KIAA1135; SPIR1; Protein spire homolog 1; Spir-1
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	SPIRE1 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	52,747 Da
OMIM	609216
3D Structure	ModBase 3D Structure for Q08AE8
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 SPIRE1 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 SPIRE1 sirna	RNA Interference (RNAi)
Related Product Information for SPIRE1 sirna	MBS8201191 is an siRNA targeting SPIRE1. Also known as SPIRE1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit SPIRE1 expression using RNA interference
Other Notes	Small volumes of SPIRE1 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 SPIRE1. It may not necessarily be applicable to this product.

NCBI GI #	191250773
NCBI GeneID	56907
NCBI Accession #	NP_001122098.1
UniProt Primary Accession #	Q08AE8
UniProt Secondary Accession #	Q1RMD4; Q8NDP1; Q9NQ71; Q9ULT4; A8K2B5; J3KQ50; J3KQR5
UniProt Related Accession #	Q08AE8
GenBank Nucleotide #	NM_001128626.1
NCBI Official Full Name	protein spire homolog 1 isoform a
NCBI Official Synonym Full Names	spire-type actin nucleation factor 1
NCBI Official Symbol	SPIRE1
NCBI Official Synonym Symbols	Spir-1
UniProt Protein Name	Protein spire homolog 1
Protein Family	Protein spire
UniProt Gene Name	SPIRE1
UniProt Synonym Gene Names	Spir-1
UniProt Entry Name	SPIR1_HUMAN
NCBI Protein Information	protein spire homolog 1
NCBI Summary for SPIRE1	Spire proteins, such as SPIRE1, are highly conserved between species. They belong to the family of Wiskott-Aldrich homology region-2 (WH2) proteins, which are involved in actin organization (Kerkhoff et al., 2001 [PubMed 11747823]).[supplied by OMIM, Mar 2008]
UniProt Comments for SPIRE1	SPIRE1: Acts as a actin nucleation factor, remains associated with the slow-growing pointed end of the new filament. Involved in vesicle transport processes providing a novel link between actin organization and intracellular transport. Belongs to the spire family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Cytoskeletal Chromosomal Location of Human Ortholog: 18p11.21 Cellular Component: Golgi apparatus; cytoplasmic vesicle membrane; cytoskeleton; perinuclear region of cytoplasm; plasma membrane; cell cortex; cleavage furrow Molecular Function: actin binding Biological Process: vesicle-mediated transport; establishment of meiotic spindle localization; protein transport; intracellular transport; polar body extrusion after meiotic divisions; actin cytoskeleton organization and biogenesis; actin nucleation; Golgi vesicle transport
Research Articles on SPIRE1	**1.** Spire recruits Fmn2 and facilitates its association with actin filaments barbed ends.
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