SPATA13 siRNA – Spermatogenesis-Associated Protein 13 Isoform 1 (Mouse)

PRODUCT OVERVIEW

Product Name	SPATA13, siRNA
Full Product Name	SPATA13 siRNA (Mouse)
Product Gene Name	SPATA13 sirna
Product Synonym Names	Spermatogenesis-associated protein 13; APC-stimulated guanine nucleotide exchange factor 2; Asef2
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	SPATA13 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	35,590 Da
3D Structure	ModBase 3D Structure for Q5DU57
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 SPATA13 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 SPATA13 sirna	RNA Interference (RNAi)
Related Product Information for SPATA13 sirna	MBS8203071 is an siRNA targeting SPATA13. Also known as SPATA13 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit SPATA13 expression using RNA interference
Other Notes	Small volumes of SPATA13 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 SPATA13. It may not necessarily be applicable to this product.

NCBI GI #	242247225

NCBI GeneID	219140
NCBI Accession #	NP_001028444.1
UniProt Primary Accession #	Q5DU57
UniProt Secondary Accession #	Q3TZ09
UniProt Related Accession #	Q5DU57
GenBank Nucleotide #	NM_001033272.2
NCBI Official Full Name	spermatogenesis-associated protein 13 isoform 1
NCBI Official Synonym Full Names	spermatogenesis associated 13
NCBI Official Symbol	Spata13
NCBI Official Synonym Symbols	C79050; ESTM11; X83327; mFLJ00298
UniProt Protein Name	Spermatogenesis-associated protein 13
UniProt Synonym Protein Names	APC-stimulated guanine nucleotide exchange factor 2; Asef2
Protein Family	Spermatogenesis-associated protein
UniProt Gene Name	Spata13
UniProt Synonym Gene Names	Asef2
UniProt Entry Name	SPT13_MOUSE
NCBI Protein Information	spermatogenesis-associated protein 13
UniProt Comments for SPATA13	SPATA13: Acts as guanine nucleotide exchange factor (GEF) for RHOA, RAC1 and CDC42 GTPases. Regulates cell migration and adhesion assembly and disassembly through a RAC1, PI3K, RHOA and AKT1-dependent mechanism. Increases both RAC1 and CDC42 activity, but decreases the amount of active RHOA. Required for MMP9 up- regulation via the JNK signaling pathway in colorectal tumor cells. Involved in tumor angiogenesis and may play a role in intestinal adenoma formation and tumor progression. Interacts (via ABR and SH3 domain) with APC. The binding of APC enhances its GEF activity by relieving it from an autoinhibitory conformation, in which the ABR and SH3 domains are associated with the C-terminal tail. Interacts (via C-terminal tail) with PPP1R9B (via C-terminus). Interacts with RAC1. 5 isoforms of the human protein are produced by alternative splicing. Protein type: GEFs; GEFs, Rac/Rho Cellular Component: nucleoplasm; cell projection; membrane; lamellipodium; cytoplasm; plasma membrane; filopodium Molecular Function: Rho guanyl-nucleotide exchange factor activity; Rac guanyl-nucleotide exchange factor activity; guanyl-nucleotide exchange factor activity Biological Process: lamellipodium biogenesis; cell migration; filopodium formation; regulation of Rho protein signal transduction; regulation of cell migration; positive regulation of GTPase activity
Research Articles on SPATA13	**1.** Asef and Asef2 are required for adenoma formation in Apc(Min/+)mice. [Asef2, mouse]
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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