VPS52 siRNA – Vacuolar Protein Sorting-Associated Protein 52 Homolog Isoform 3 (Human)

PRODUCT OVERVIEW

Product Name	VPS52, siRNA
Full Product Name	VPS52 siRNA (Human)
Product Gene Name	VPS52 sirna
Product Synonym Names	SACM2L; Vacuolar protein sorting-associated protein 52 homolog; SAC2 suppressor of actin mutations 2-like protein
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	VPS52 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	68,496 Da
OMIM	603443
3D Structure	ModBase 3D Structure for Q8N1B4
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 VPS52 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 VPS52 sirna	RNA Interference (RNAi)
Related Product Information for VPS52 sirna	MBS8206501 is an siRNA targeting VPS52. Also known as VPS52 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit VPS52 expression using RNA interference
Other Notes	Small volumes of VPS52 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 VPS52. It may not necessarily be applicable to this product.

NCBI GI #	574584850
NCBI GeneID	6293
NCBI Accession #	NP_001276104.1
UniProt Primary Accession #	Q8N1B4
UniProt Secondary Accession #	Q53GR4; Q5JPA0; Q5SQW1; Q8IUN6; Q9NPT5; A2BF38; B0UZZ4; B4DNI9
UniProt Related Accession #	Q8N1B4
GenBank Nucleotide #	NM_001289175.1
NCBI Official Full Name	vacuolar protein sorting-associated protein 52 homolog isoform 3
NCBI Official Synonym Full Names	vacuolar protein sorting 52 homolog (S. cerevisiae)
NCBI Official Symbol	VPS52
NCBI Official Synonym Symbols	ARE1; SAC2; SACM2L; dJ1033B10.5
UniProt Protein Name	Vacuolar protein sorting-associated protein 52 homolog
UniProt Synonym Protein Names	SAC2 suppressor of actin mutations 2-like protein
Protein Family	Vacuolar protein sorting-associated protein
UniProt Gene Name	VPS52
UniProt Synonym Gene Names	SACM2L
UniProt Entry Name	VPS52_HUMAN
NCBI Protein Information	vacuolar protein sorting-associated protein 52 homolog
NCBI Summary for VPS52	This gene encodes a protein that is similar to the yeast suppressor of actin mutations 2 gene. The yeast protein forms a subunit of the tetrameric Golgi-associated retrograde protein complex that is involved in vesicle trafficking from from both early and late endosomes, back to the trans-Golgi network. This gene is located on chromosome 6 in a head-to-head orientation with the gene encoding ribosomal protein S18. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]
UniProt Comments for VPS52	VPS52: May be involved in retrograde transport of early and late endosomes to the late Golgi. The GARP complex is required for the maintenance of the cycling of mannose 6-phosphate receptors between the TGN and endosomes, this cycling is necessary for proper lysosomal sorting of acid hydrolases such as CTSD. Belongs to the VPS52 family. Chromosomal Location of Human Ortholog: 6p21.3 Cellular Component: Golgi apparatus; perinuclear region of cytoplasm; endosome membrane Molecular Function: protein binding; syntaxin binding Biological Process: protein transport; embryonic ectodermal gut development
Research Articles on VPS52	**1.** our data indicate that cisplatin resistance in HOCCs is partially attributable to their high expression of p62, which plays an important role in preventing ROS stress-induced apoptosis by regulating the Keap1-Nrf2-ARE signaling pathway.
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