VAC14 siRNA – Protein VAC14 Homolog (Rat)

PRODUCT OVERVIEW

Product Name	VAC14, siRNA
Full Product Name	VAC14 siRNA (Rat)
Product Gene Name	VAC14 sirna
Product Synonym Names	Protein VAC14 homolog
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	VAC14 siRNA (Rat) 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	88,068 Da
3D Structure	ModBase 3D Structure for Q80W92
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 rat VAC14 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 VAC14 sirna	RNA Interference (RNAi)
Related Product Information for VAC14 sirna	MBS8216850 is an siRNA targeting VAC14. Also known as VAC14 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit VAC14 expression using RNA interference
Other Notes	Small volumes of VAC14 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 VAC14. It may not necessarily be applicable to this product.

NCBI GI #	29293817
NCBI GeneID	307842

NCBI Accession #	NP_808791.1
UniProt Primary Accession #	Q80W92
UniProt Related Accession #	Q80W92
GenBank Nucleotide #	NM_177930.2
NCBI Official Full Name	protein VAC14 homolog
NCBI Official Synonym Full Names	Vac14 homolog (S. cerevisiae)
NCBI Official Symbol	Vac14
UniProt Protein Name	Protein VAC14 homolog
Protein Family	Protein
UniProt Gene Name	Vac14
UniProt Entry Name	VAC14_RAT
NCBI Protein Information	protein VAC14 homolog
NCBI Summary for VAC14	a putative cytoskeletal interacting protein; mutation of gene may be associated with lethal communicating hydrocephalus with perinatal onset [RGD, Feb 2006]
UniProt Comments for VAC14	VAC14: The PI(3,5)P2 regulatory complex regulates both the synthesis and turnover of phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2). Acts as a positive activator of PIKfyve kinase activity. Also required to maintain normal levels of phosphatidylinositol 3-phosphate (PtdIns(3)P) and phosphatidylinositol 5-phosphate (PtdIns(5)P). Plays a role in the biogenesis of endosome carrier vesicles (ECV) / multivesicular bodies (MVB) transport intermediates from early endosomes. Belongs to the VAC14 family. Cellular Component: endoplasmic reticulum; endosome membrane Biological Process: regulation of lipid kinase activity
Research Articles on VAC14	**1.** This paper describes a related gene in mouse.
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