ATP6V0D2 siRNA – V-Type Proton Atpase Subunit D 2 (Human)

PRODUCT OVERVIEW

Product Name	ATP6V0D2, siRNA
Full Product Name	ATP6V0D2 siRNA (Human)
Product Gene Name	ATP6V0D2 sirna
Product Synonym Names	V-type proton ATPase subunit d 2; V-ATPase subunit d 2; Vacuolar proton pump subunit d 2
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	ATP6V0D2 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	40,426 Da
3D Structure	ModBase 3D Structure for Q8N8Y2
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 ATP6V0D2 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 ATP6V0D2 sirna	RNA Interference (RNAi)
Related Product Information for ATP6V0D2 sirna	MBS8224587 is an siRNA targeting ATP6V0D2. Also known as ATP6V0D2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit ATP6V0D2 expression using RNA interference
Other Notes	Small volumes of ATP6V0D2 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 ATP6V0D2. It may not necessarily be applicable to this product.

NCBI GI #	22749165

NCBI GeneID	245972
NCBI Accession #	NP_689778.1
UniProt Primary Accession #	Q8N8Y2
UniProt Related Accession #	Q8N8Y2
GenBank Nucleotide #	NM_152565.1
NCBI Official Full Name	V-type proton ATPase subunit d 2
NCBI Official Synonym Full Names	ATPase, H+ transporting, lysosomal 38kDa, V0 subunit d2
NCBI Official Symbol	ATP6V0D2
NCBI Official Synonym Symbols	VMA6; ATP6D2
UniProt Protein Name	V-type proton ATPase subunit d 2
UniProt Synonym Protein Names	Vacuolar proton pump subunit d 2
Protein Family	V-type proton ATPase
UniProt Gene Name	ATP6V0D2
UniProt Synonym Gene Names	V-ATPase subunit d 2
UniProt Entry Name	VA0D2_HUMAN
NCBI Protein Information	V-type proton ATPase subunit d 2
UniProt Comments for ATP6V0D2	ATP6V0D2: Subunit of the integral membrane V0 complex of vacuolar ATPase. Vacuolar ATPase is responsible for acidifying a variety of intracellular compartments in eukaryotic cells, thus providing most of the energy required for transport processes in the vacuolar system. May play a role in coupling of proton transport and ATP hydrolysis. Belongs to the V-ATPase V0D/AC39 subunit family. Protein type: Energy Metabolism - oxidative phosphorylation; EC 3.6.3.14 Chromosomal Location of Human Ortholog: - Cellular Component: phagocytic vesicle membrane; membrane; early endosome; apical plasma membrane; endosome membrane; vacuolar proton-transporting V-type ATPase complex Molecular Function: protein binding; hydrogen ion transmembrane transporter activity Biological Process: interaction with host; cellular iron ion homeostasis; ATP hydrolysis coupled proton transport; insulin receptor signaling pathway; transferrin transport; transmembrane transport
Research Articles on ATP6V0D2	**1.** The secondary structures of d1 and d2 subunits were highly similar, but the relative stability against thermal stress was higher for d1 than d2.
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