AASS siRNA – Alpha-Aminoadipic Semialdehyde Synthase, Mitochondrial (Rat)

PRODUCT OVERVIEW

Product Name	AASS, siRNA
Full Product Name	AASS siRNA (Rat)
Product Gene Name	AASS sirna
Product Synonym Names	Alpha-aminoadipic semialdehyde synthase mitochondrial; LKR/SDH
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	AASS 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	102,908 Da
3D Structure	ModBase 3D Structure for A2VCW9
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 AASS 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 AASS sirna	RNA Interference (RNAi)
Related Product Information for AASS sirna	MBS8215010 is an siRNA targeting AASS. Also known as AASS siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit AASS expression using RNA interference
Other Notes	Small volumes of AASS 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 AASS. It may not necessarily be applicable to this product.

NCBI GI #	155369281
NCBI GeneID	296925

NCBI Accession #	NP_001094433.1
UniProt Primary Accession #	A2VCW9
UniProt Related Accession #	A2VCW9
GenBank Nucleotide #	NM_001100963.1
NCBI Official Full Name	alpha-aminoadipic semialdehyde synthase, mitochondrial
NCBI Official Synonym Full Names	aminoadipate-semialdehyde synthase
NCBI Official Symbol	Aass
UniProt Protein Name	Alpha-aminoadipic semialdehyde synthase, mitochondrial
UniProt Synonym Protein Names	LKR/SDHIncluding the following 2 domains:Lysine ketoglutarate reductase (EC:1.5.1.8); LKR; LORSaccharopine dehydrogenase (EC:1.5.1.9); SDH
UniProt Gene Name	Aass
UniProt Synonym Gene Names	LKR; LOR; SDH
UniProt Entry Name	AASS_RAT
NCBI Protein Information	alpha-aminoadipic semialdehyde synthase, mitochondrial
UniProt Comments for AASS	AASS: Bifunctional enzyme that catalyzes the first two steps in lysine degradation. The N-terminal and the C-terminal contain lysine-ketoglutarate reductase and saccharopine dehydrogenase activity, respectively. Defects in AASS are the cause of hyperlysinemia (HYPLYS). Hyperlysinemia is an autosomal recessive condition characterized by hyperlysinemia lysinuria and variable saccharopinuria. Protein type: Mitochondrial; Oxidoreductase; EC 1.5.1.8; Amino Acid Metabolism - lysine biosynthesis; EC 1.5.1.9; Amino Acid Metabolism - lysine degradation Cellular Component: intracellular membrane-bound organelle; mitochondrion Molecular Function: saccharopine dehydrogenase (NAD+, L-glutamate-forming) activity; saccharopine dehydrogenase (NADP+, L-lysine-forming) activity Biological Process: L-lysine catabolic process to acetyl-CoA via saccharopine; L-lysine catabolic process
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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