AKR1B7 siRNA – Aldose Reductase-Related Protein 1 (Mouse)

PRODUCT OVERVIEW

Product Name	AKR1B7, siRNA
Full Product Name	AKR1B7 siRNA (Mouse)
Product Gene Name	AKR1B7 sirna
Product Synonym Names	AVDP; Aldose reductase-related protein 1; Aldehyde reductase; AR; Aldo-keto reductase family 1 member B7; MVDP; Vas deferens androgen-dependent protein
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	AKR1B7 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	35,988 Da
3D Structure	ModBase 3D Structure for P21300
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 AKR1B7 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 AKR1B7 sirna	RNA Interference (RNAi)
Related Product Information for AKR1B7 sirna	MBS8206001 is an siRNA targeting AKR1B7. Also known as AKR1B7 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit AKR1B7 expression using RNA interference
Other Notes	Small volumes of AKR1B7 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 AKR1B7. It may not necessarily be applicable to this product.

NCBI GI #	160415215
NCBI GeneID	11997
NCBI Accession #	NP_033861.2
UniProt Primary Accession #	P21300
UniProt Related Accession #	P21300
GenBank Nucleotide #	NM_009731.2
NCBI Official Full Name	aldose reductase-related protein 1
NCBI Official Synonym Full Names	aldo-keto reductase family 1, member B7
NCBI Official Symbol	Akr1b7
NCBI Official Synonym Symbols	AR; Avdp; MVDP
UniProt Protein Name	Aldose reductase-related protein 1
UniProt Synonym Protein Names	Aldehyde reductase; AR; Aldo-keto reductase family 1 member B7; MVDP; Vas deferens androgen-dependent protein
Protein Family	Aldose reductase-related protein
UniProt Gene Name	Akr1b7
UniProt Synonym Gene Names	Avdp; AR
UniProt Entry Name	ALD1_MOUSE
NCBI Protein Information	aldose reductase-related protein 1
UniProt Comments for AKR1B7	AKR1B7: Protein type: EC 1.1.1.21 Cellular Component: mitochondrion; cytoplasm Molecular Function: oxidoreductase activity; aldehyde reductase activity Biological Process: cellular lipid metabolic process
Research Articles on AKR1B7	**1.** Data from knockout mice suggest that Akr1b7 has a role in physiological control of white adipose tissue expansion and pathogenesis of obesity.
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