ADI1 siRNA – 1,2-Dihydroxy-3-Keto-5-Methylthiopentene Dioxygenase (Rat)

PRODUCT OVERVIEW

Product Name	ADI1, siRNA
Full Product Name	ADI1 siRNA (Rat)
Product Gene Name	ADI1 sirna
Product Synonym Names	ALP1; MTCBP1; 1.2-dihydroxy-3-keto-5-methylthiopentene dioxygenase; Acireductone dioxygenase; Fe(2+)-requiring); ARD; Fe-ARD; Androgen-responsive ARD-like protein 1; Membrane-type 1 matrix metalloproteinase cytoplasmic tail-binding protein 1; MTCBP-1
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	ADI1 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	21,461 Da
3D Structure	ModBase 3D Structure for Q562C9
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 ADI1 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 ADI1 sirna	RNA Interference (RNAi)
Related Product Information for ADI1 sirna	MBS8235903 is an siRNA targeting ADI1. Also known as ADI1 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit ADI1 expression using RNA interference
Other Notes	Small volumes of ADI1 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 ADI1. It may not necessarily be applicable to this product.

NCBI GI #	40018538

NCBI GeneID	298934
NCBI Accession #	NP_954528.1
UniProt Primary Accession #	Q562C9
UniProt Secondary Accession #	Q6V9S4
UniProt Related Accession #	Q562C9
GenBank Nucleotide #	NM_199097.1
NCBI Official Full Name	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase
NCBI Official Synonym Full Names	acireductone dioxygenase 1
NCBI Official Symbol	Adi1
NCBI Official Synonym Symbols	Alp1; Fe-ARD; Ni-ARD; MTCBP-1
UniProt Protein Name	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase
UniProt Synonym Protein Names	Acireductone dioxygenase (Fe(2+)-requiring)
Protein Family	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase
UniProt Gene Name	Adi1
UniProt Synonym Gene Names	Alp1; Mtcbp1; ARD; Fe-ARD; MTCBP-1
UniProt Entry Name	MTND_RAT
NCBI Protein Information	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase
NCBI Summary for ADI1	may be involved in the methionine salvage pathway and prostate homeostasis [RGD, Feb 2006]
UniProt Comments for ADI1	Catalyzes the formation of formate and 2-keto-4-methylthiobutyrate (KMTB) from 1,2-dihydroxy-3-keto-5-methylthiopentene (DHK-MTPene). Also down-regulates cell migration mediated by MMP14 (). Induces apoptosis when overexpressed.
Research Articles on ADI1	**1.** May have an important role in androgen regulated prostate homeostasis as well as in prostate cancer progression by regulating cell death of prostate cancer cells.
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.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/rat-sirna/adi1/8235903