DERA siRNA – Deoxyribose-Phosphate Aldolase Isoform 1 (Human)

PRODUCT OVERVIEW

Product Name	DERA, siRNA
Full Product Name	DERA siRNA (Human)
Product Gene Name	DERA sirna
Product Synonym Names	Putative deoxyribose-phosphate aldolase; DERA; 2-deoxy-D-ribose 5-phosphate aldolase; Phosphodeoxyriboaldolase; Deoxyriboaldolase
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	DERA 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	35,231 Da
3D Structure	ModBase 3D Structure for Q9Y315
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 DERA 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 DERA sirna	RNA Interference (RNAi)
Related Product Information for DERA sirna	MBS8219411 is an siRNA targeting DERA. Also known as DERA siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit DERA expression using RNA interference
Other Notes	Small volumes of DERA 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 DERA. It may not necessarily be applicable to this product.

NCBI GI #	116063554

NCBI GeneID	51071
NCBI Accession #	NP_057038.2
UniProt Primary Accession #	Q9Y315
UniProt Secondary Accession #	Q53HN9; Q6PHW2
UniProt Related Accession #	Q9Y315
GenBank Nucleotide #	NM_015954.3
NCBI Official Full Name	deoxyribose-phosphate aldolase isoform 1
NCBI Official Synonym Full Names	deoxyribose-phosphate aldolase (putative)
NCBI Official Symbol	DERA
NCBI Official Synonym Symbols	DEOC; CGI-26
UniProt Protein Name	Deoxyribose-phosphate aldolase
UniProt Synonym Protein Names	2-deoxy-D-ribose 5-phosphate aldolase; Phosphodeoxyriboaldolase; Deoxyriboaldolase
Protein Family	Deoxyribose-phosphate aldolase
UniProt Gene Name	DERA
UniProt Synonym Gene Names	DERA; Deoxyriboaldolase
UniProt Entry Name	DEOC_HUMAN
NCBI Protein Information	deoxyribose-phosphate aldolase
UniProt Comments for DERA	DERA: Catalyzes a reversible aldol reaction between acetaldehyde and D-glyceraldehyde 3-phosphate to generate 2-deoxy- D-ribose 5-phosphate. Belongs to the DeoC/FbaB aldolase family. DeoC type 2 subfamily. Protein type: Carbohydrate Metabolism - pentose phosphate pathway; EC 4.1.2.4; Lyase Chromosomal Location of Human Ortholog: 12p12.3 Cellular Component: cytoplasm; nucleus Molecular Function: deoxyribose-phosphate aldolase activity Biological Process: deoxyribonucleoside catabolic process; deoxyribose phosphate catabolic process; deoxyribonucleotide catabolic process
Research Articles on DERA	**1.** Clinical trial of gene-disease association and gene-environment interaction. (HuGE Navigator)
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