WARS siRNA – Tryptophan--Trna Ligase, Cytoplasmic Isoform X1 (Rat)

PRODUCT OVERVIEW

Product Name	WARS, siRNA
Full Product Name	WARS siRNA (Rat)
Product Gene Name	WARS sirna
Product Synonym Names	Tryptophan--tRNA ligase cytoplasmic; Tryptophanyl-tRNA synthetase; TrpRS
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	WARS 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	54,144 Da
3D Structure	ModBase 3D Structure for Q6P7B0
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 WARS 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 WARS sirna	RNA Interference (RNAi)
Related Product Information for WARS sirna	MBS829591 is an siRNA targeting WARS. Also known as WARS siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit WARS expression using RNA interference
Other Notes	Small volumes of WARS 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 WARS. It may not necessarily be applicable to this product.

NCBI GI #	564357211
NCBI GeneID	314442

NCBI Accession #	XP_006240604.1
UniProt Primary Accession #	Q6P7B0
UniProt Related Accession #	Q6P7B0
GenBank Nucleotide #	XM_006240542.2
NCBI Official Full Name	tryptophan--tRNA ligase, cytoplasmic isoform X1
NCBI Official Synonym Full Names	tryptophanyl-tRNA synthetase
NCBI Official Symbol	Wars
UniProt Protein Name	Tryptophan--tRNA ligase, cytoplasmic
UniProt Synonym Protein Names	Tryptophanyl-tRNA synthetase; TrpRS
Protein Family	Tryptophan--tRNA ligase
UniProt Gene Name	Wars
UniProt Synonym Gene Names	TrpRS
UniProt Entry Name	SYWC_RAT
NCBI Protein Information	tryptophan--tRNA ligase, cytoplasmic
UniProt Comments for WARS	WARS: T1-TrpRS has aminoacylation activity while T2-TrpRS lacks it. T1-TrpRS and T2-TrpRS possess angiostatic activity. T2-TrpRS inhibits fluid shear stress-activated responses of endothelial cells. Regulates ERK, Akt, and eNOS activation pathways that are associated with angiogenesis, cytoskeletal reorganization and shear stress-responsive gene expression (By similarity) Protein type: Ligase; Amino Acid Metabolism - tryptophan; EC 6.1.1.2; Translation Cellular Component: cytoplasm; nucleus Molecular Function: tryptophan-tRNA ligase activity; ATP binding Biological Process: tryptophanyl-tRNA aminoacylation; angiogenesis; regulation of angiogenesis
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