PADI2 siRNA – Protein-Arginine Deiminase Type-2 (Rat)

PRODUCT OVERVIEW

Product Name	PADI2, siRNA
Full Product Name	PADI2 siRNA (Rat)
Product Gene Name	PADI2 sirna
Product Synonym Names	PDI; PDI2; Protein-arginine deiminase type-2; Peptidylarginine deiminase II; Protein-arginine deiminase type II
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	PADI2 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	75,356 Da
3D Structure	ModBase 3D Structure for P20717
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 PADI2 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 PADI2 sirna	RNA Interference (RNAi)
Related Product Information for PADI2 sirna	MBS8200553 is an siRNA targeting PADI2. Also known as PADI2 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit PADI2 expression using RNA interference
Other Notes	Small volumes of PADI2 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 PADI2. It may not necessarily be applicable to this product.

NCBI GI #	8393935
NCBI GeneID	29511

NCBI Accession #	NP_058922.1
UniProt Primary Accession #	P20717
UniProt Related Accession #	P20717
GenBank Nucleotide #	NM_017226.1
NCBI Official Full Name	protein-arginine deiminase type-2
NCBI Official Synonym Full Names	peptidyl arginine deiminase, type II
NCBI Official Symbol	Padi2
NCBI Official Synonym Symbols	Pdi2
UniProt Protein Name	Protein-arginine deiminase type-2
UniProt Synonym Protein Names	Peptidylarginine deiminase II; Protein-arginine deiminase type II
Protein Family	Protein-arginine deiminase
UniProt Gene Name	Padi2
UniProt Synonym Gene Names	Pad2; Pdi; Pdi2
UniProt Entry Name	PADI2_RAT
NCBI Protein Information	protein-arginine deiminase type-2
NCBI Summary for PADI2	catalyzes the calcium ion dependent conversion of protein arginine residues to citrulline residues; expressed in skeletal muscle [RGD, Feb 2006]
UniProt Comments for PADI2	PADI2: Catalyzes the deimination of arginine residues of proteins. Belongs to the protein arginine deiminase family. Protein type: EC 3.5.3.15; Hydrolase Cellular Component: cytoplasm Molecular Function: estrogen receptor binding; calcium ion binding; protein-arginine deiminase activity Biological Process: substantia nigra development; estrogen receptor signaling pathway; chromatin-mediated maintenance of transcription; peptidyl-citrulline biosynthetic process from peptidyl-arginine
Research Articles on PADI2	**1.** These biochemical and immunohistochemical results suggest that PAD2 might play an important role in the pathology of early Alzheimer's disease
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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