MMP19 siRNA – Matrix Metalloproteinase-19 Isoform 1 (Mouse)

PRODUCT OVERVIEW

Product Name	MMP19, siRNA
Full Product Name	MMP19 siRNA (Mouse)
Product Gene Name	MMP19 sirna
Product Synonym Names	RASI; Matrix metalloproteinase-19; MMP-19; Matrix metalloproteinase RASI
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	MMP19 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	59,122 Da
3D Structure	ModBase 3D Structure for Q9JHI0
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 MMP19 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 MMP19 sirna	RNA Interference (RNAi)
Related Product Information for MMP19 sirna	MBS8216570 is an siRNA targeting MMP19. Also known as MMP19 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit MMP19 expression using RNA interference
Other Notes	Small volumes of MMP19 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 MMP19. It may not necessarily be applicable to this product.

NCBI GI #	10946772

NCBI GeneID	58223
NCBI Accession #	NP_067387.1
UniProt Primary Accession #	Q9JHI0
UniProt Secondary Accession #	Q8C360
UniProt Related Accession #	Q9JHI0
GenBank Nucleotide #	NM_021412.2
NCBI Official Full Name	matrix metalloproteinase-19 isoform 1
NCBI Official Synonym Full Names	matrix metallopeptidase 19
NCBI Official Symbol	Mmp19
UniProt Protein Name	Matrix metalloproteinase-19
UniProt Synonym Protein Names	Matrix metalloproteinase RASI
Protein Family	Matrix metalloproteinase
UniProt Gene Name	Mmp19
UniProt Synonym Gene Names	Rasi; MMP-19
UniProt Entry Name	MMP19_MOUSE
NCBI Protein Information	matrix metalloproteinase-19
UniProt Comments for MMP19	MMP19: Endopeptidase that degrades various components of the extracellular matrix, such as aggrecan and cartilage oligomeric matrix protein (comp), during development, haemostasis and pathological conditions (arthritic disease). May also play a role in neovascularization or angiogenesis. Hydrolyzes collagen type IV, laminin, nidogen, nascin-C isoform, fibronectin, and type I gelatin. May play a role in pathological processes participating in rheumatoid arthritis (RA)-associated joint tissue destruction. Autoantigen anti-MMP19 are frequent in RA patients. Belongs to the peptidase M10A family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted, signal peptide; Secreted; Protease; EC 3.4.24.- Cellular Component: extracellular matrix; proteinaceous extracellular matrix; membrane; plasma membrane; extracellular region Molecular Function: peptidase activity; zinc ion binding; metallopeptidase activity; hydrolase activity; metalloendopeptidase activity; metal ion binding; calcium ion binding Biological Process: collagen catabolic process; multicellular organismal development; angiogenesis; cell differentiation; proteolysis
Research Articles on MMP19	**1.** These findings suggest that, in lung fibroblasts, MMP-19 has strong regulatory effects on the synthesis of key ECM components, on fibroblast to myofibroblast differentiation, and in migration and proliferation.
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