MASP2 siRNA – Mannan-Binding Lectin Serine Protease 2 Isoform 1 Preproprotein (Human)

PRODUCT OVERVIEW

Product Name	MASP2, siRNA
Full Product Name	MASP2 siRNA (Human)
Product Gene Name	MASP2 sirna
Product Synonym Names	Mannan-binding lectin serine protease 2; MBL-associated serine protease 2; Mannose-binding protein-associated serine protease 2; MASP-2
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	MASP2 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	20,629 Da
OMIM	605102
3D Structure	ModBase 3D Structure for O00187
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 MASP2 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 MASP2 sirna	RNA Interference (RNAi)
Related Product Information for MASP2 sirna	MBS8217262 is an siRNA targeting MASP2. Also known as MASP2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit MASP2 expression using RNA interference
Other Notes	Small volumes of MASP2 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 MASP2. It may not necessarily be applicable to this product.

NCBI GI #	21264363
NCBI GeneID	10747
NCBI Accession #	NP_006601.2
UniProt Primary Accession #	O00187
UniProt Secondary Accession #	O75754; Q5TEQ5; Q5TER0; Q96QG4; Q9BZH0; Q9H498; Q9H499; Q9UBP3; Q9UC48; A8K458; A8MWJ2
UniProt Related Accession #	O00187
GenBank Nucleotide #	NM_006610.3
NCBI Official Full Name	mannan-binding lectin serine protease 2 isoform 1 preproprotein
NCBI Official Synonym Full Names	mannan-binding lectin serine peptidase 2
NCBI Official Symbol	MASP2
NCBI Official Synonym Symbols	sMAP; MAP19; MASP-2; MASP1P1
UniProt Protein Name	Mannan-binding lectin serine protease 2
UniProt Synonym Protein Names	MBL-associated serine protease 2; Mannose-binding protein-associated serine protease 2; MASP-2
Protein Family	Mannan-binding lectin serine protease
UniProt Gene Name	MASP2
UniProt Synonym Gene Names	MASP-2
UniProt Entry Name	MASP2_HUMAN
NCBI Protein Information	mannan-binding lectin serine protease 2
NCBI Summary for MASP2	The Ra-reactive factor (RARF) is a complement-dependent bactericidal factor that binds to the Ra and R2 polysaccharides expressed by certain enterobacteria. Alternate splicing of this gene results in two transcript variants encoding two RARF components that are involved in the mannan-binding lectin pathway of complement activation. The longer isoform is cleaved into two chains which form a heterodimer linked by a disulfide bond. The encoded proteins are members of the trypsin family of peptidases. [provided by RefSeq, Jul 2008]
UniProt Comments for MASP2	MASP2: Serum protease that plays an important role in the activation of the complement system via mannose-binding lectin. After activation by auto-catalytic cleavage it cleaves C2 and C4, leading to their activation and to the formation of C3 convertase. Defects in MASP2 are the cause of MASP2 deficiency (MASPD). MASPD is a disorder that results in autoimmune manifestations, recurrent severe infections, and chronic inflammatory disease. Belongs to the peptidase S1 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted, signal peptide; Protease; EC 3.4.21.104; Secreted Chromosomal Location of Human Ortholog: 1p36.3-p36.2 Cellular Component: extracellular region Molecular Function: peptidase activity; protein binding; serine-type endopeptidase activity; complement component C4b binding; calcium ion binding; calcium-dependent protein binding Biological Process: innate immune response; proteolysis; complement activation, lectin pathway; complement activation, classical pathway; complement activation Disease: Masp2 Deficiency
Research Articles on MASP2	**1.** Polymorphisms in MASP1 and MASP2 genes are associated with the susceptibility or protection to infectious diseases. (Review)

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