MGAT5 siRNA – Alpha-1,6-Mannosylglycoprotein 6-Beta-N-Acetylglucosaminyltransferase A (Human)

PRODUCT OVERVIEW

Product Name	MGAT5, siRNA
Full Product Name	MGAT5 siRNA (Human)
Product Gene Name	MGAT5 sirna
Product Synonym Names	GGNT5; Alpha-1.6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A; Alpha-mannoside beta-1.6-N-acetylglucosaminyltransferase; GlcNAc-T V; GNT-V; Mannoside acetylglucosaminyltransferase 5; N-acetylglucosaminyl-transferase V
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	MGAT5 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	84,543 Da
OMIM	601774
3D Structure	ModBase 3D Structure for Q09328
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 MGAT5 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 MGAT5 sirna	RNA Interference (RNAi)
Related Product Information for MGAT5 sirna	MBS8229857 is an siRNA targeting MGAT5. Also known as MGAT5 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit MGAT5 expression using RNA interference
Other Notes	Small volumes of MGAT5 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 MGAT5. It may not necessarily be applicable to this product.

NCBI GI #	4505167
NCBI GeneID	4249
NCBI Accession #	NP_002401.1
UniProt Primary Accession #	Q09328
UniProt Secondary Accession #	D3DP70
UniProt Related Accession #	Q09328
GenBank Nucleotide #	NM_002410.4
NCBI Official Full Name	alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A
NCBI Official Synonym Full Names	mannosyl (alpha-1,6-)-glycoprotein beta-1,6-N-acetyl-glucosaminyltransferase
NCBI Official Symbol	MGAT5
NCBI Official Synonym Symbols	GNT-V; GNT-VA
UniProt Protein Name	Alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A
UniProt Synonym Protein Names	Alpha-mannoside beta-1,6-N-acetylglucosaminyltransferase; GlcNAc-T V; GNT-V; Mannoside acetylglucosaminyltransferase 5; N-acetylglucosaminyl-transferase V
Protein Family	Alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase
UniProt Gene Name	MGAT5
UniProt Synonym Gene Names	GGNT5; GNT-V
UniProt Entry Name	MGT5A_HUMAN
NCBI Protein Information	alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A
NCBI Summary for MGAT5	The protein encoded by this gene belongs to the glycosyltransferase family. It catalyzes the addition of beta-1,6-N-acetylglucosamine to the alpha-linked mannose of biantennary N-linked oligosaccharides present on the newly synthesized glycoproteins. It is one of the most important enzymes involved in the regulation of the biosynthesis of glycoprotein oligosaccharides. Alterations of the oligosaccharides on cell surface glycoproteins cause significant changes in the adhesive or migratory behavior of a cell. Increase in the activity of this enzyme has been correlated with the progression of invasive malignancies. [provided by RefSeq, Oct 2011]
UniProt Comments for MGAT5	MGAT5: Catalyzes the addition of N-acetylglucosamine in beta 1- 6 linkage to the alpha-linked mannose of biantennary N-linked oligosaccharides. It is one of the most important enzymes involved in the regulation of the biosynthesis of glycoprotein oligosaccharides. Belongs to the glycosyltransferase 18 family. Protein type: Transferase; Membrane protein, integral; EC 2.4.1.155; Glycan Metabolism - N-glycan biosynthesis Chromosomal Location of Human Ortholog: 2q21.3 Cellular Component: Golgi membrane; integral to membrane Molecular Function: alpha-1,6-mannosyl-glycoprotein 6-beta-N-acetylglucosaminyltransferase activity Biological Process: cellular protein metabolic process; protein amino acid N-linked glycosylation via asparagine; post-translational protein modification
Research Articles on MGAT5	**1.** functional characterization of N-acetylglucosaminyltransferases III and V in human melanoma cells

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