Datasheet for ABIN7559762

MGAT5 Protein (AA 1-740) (His tag)

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Overview

Quantity:	1 mg
Target:	MGAT5
Protein Characteristics:	AA 1-740
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MGAT5 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Mgat5 Protein expressed in mammalian cells.
Sequence:	MAFFSPWKLS SQKLGFFLVT FGFIWGMMLL HFTIQQRTQP ESSSMLREQI LDLSKRYIKA LAEENRDVVD GPYAGVMTAY DLKKTLAVLL DNILQRIGKL ESKVDNLVNG TGANSTNSTT AVPSLVSLEK INVADIINGV QEKCVLPPMD GYPHCEGKIK WMKDMWRSDP CYADYGVDGT SCSFFIYLSE VENWCPRLPW RAKNPYEEAD HNSLAEIRTD FNILYGMMKK HEEFRWMRLR IRRMADAWIQ AIKSLAEKQN LEKRKRKKIL VHLGLLTKES GFKIAETAFS GGPLGELVQW SDLITSLYLL GHDIRISASL AELKEIMKKV VGNRSGCPTV GDRIVELIYI DIVGLAQFKK TLGPSWVHYQ CMLRVLDSFG TEPEFNHASY AQSKGHKTPW GKWNLNPQQF YTMFPHTPDN SFLGFVVEQH LNSSDIHHIN EIKRQNQSLV YGKVDSFWKN KKIYLDIIHT YMEVHATVYG SSTKNIPSYV KNHGILSGRD LQFLLRETKL FVGLGFPYEG PAPLEAIANG CAFLNPKFNP PKSSKNTDFF IGKPTLRELT SQHPYAEVFI GRPHVWTVDL NNREEVEDAV KAILNQKIEP YMPYEFTCEG MLQRINAFIE KQDFCHGQVM WPPLSALQVK LAEPGQSCKQ VCQESQLICE PSFFQHLNKE KDLLKYKVTC QSSELYKDIL VPSFYPKSKH CVFQGDLLLF SCAGAHPTHQ

Product Details

	RICPCRDFIK GQVALCKDCL **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	MGAT5
Alternative Name:	Mgat5 (MGAT5 Products)
Background:	Alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A (EC 2.4.1.155) (Alpha-mannoside beta-1,6-N-acetylglucosaminyltransferase) (GlcNAc-T V) (GNT-V) (Mannoside acetylglucosaminyltransferase 5) (N-acetylglucosaminyl-transferase V) [Cleaved into: Secreted alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A (Secreted beta-1,6-N-acetylglucosaminyltransferase V) (Secreted GNT-V)],FUNCTION: Catalyzes the addition of N-acetylglucosamine (GlcNAc) in beta 1-6 linkage to the alpha-linked mannose of biantennary N-linked oligosaccharides (PubMed:10700233, PubMed:14561752, PubMed:22715095). Catalyzes an important step in the biosynthesis of branched, complex-type

Target Details

	N-glycans, such as those found on EGFR, TGFR (TGF-beta receptor) and CDH2 (PubMed:12122020, PubMed:10700233, PubMed:14561752, PubMed:15459394, PubMed:22715095). Via its role in the biosynthesis of complex N-glycans, plays an important role in the activation of cellular signaling pathways, reorganization of the actin cytoskeleton, cell-cell adhesion and cell migration (PubMed:10700233, PubMed:14561752, PubMed:15459394). MGAT5-dependent EGFR N-glycosylation enhances the interaction between EGFR and LGALS3 and thereby prevents rapid EGFR endocytosis and prolongs EGFR signaling (PubMed:15459394). Required for efficient interaction between TGFB1 and its receptor (PubMed:15459394). Enhances activation of intracellular signaling pathways by several types of growth factors, including FGF2, PDGF, IGF, TGFB1 and EGF (PubMed:15459394). MGAT5-dependent CDH2 N-glycosylation inhibits CDH2-mediated homotypic cell-cell adhesion and contributes to the regulation of downstream signaling pathways (PubMed:14561752). Promotes cell migration (PubMed:14561752, PubMed:15459394). Contributes to the regulation of the inflammatory response (PubMed:11217864, PubMed:15459394). MGAT5-dependent TCR N-glycosylation enhances the interaction between TCR and LGALS3, limits agonist-induced TCR clustering, and thereby dampens TCR-mediated responses to antigens (PubMed:11217864). Required for normal leukocyte evasation and accumulation at sites of inflammation (PubMed:15459394). Inhibits attachment of monocytes to the vascular endothelium and subsequent monocyte diapedesis (By similarity). {ECO:0000250|UniProtKB:Q09328, ECO:0000269|PubMed:10700233, ECO:0000269|PubMed:11217864, ECO:0000269|PubMed:12122020, ECO:0000269|PubMed:14561752, ECO:0000269|PubMed:15459394, ECO:0000269|PubMed:22715095}., FUNCTION: [Secreted alpha-1,6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A]: Promotes proliferation of umbilical vein endothelial cells and angiogenesis, at least in part by promoting the release of the growth factor FGF2 from the extracellular matrix. {ECO:0000250|UniProtKB:Q09328}.
Molecular Weight:	84.6 kDa
UniProt:	Q8R4G6

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months