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MGAT5 Rabbit pAb

Catalog # AP97282

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q09328
Other Accession	Q09328
Reactivity	Rat, Human, Mouse
Predicted	Rabbit, Chicken, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	84543
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MGAT5
Epitope Specificity	201-300/741
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the glycosyltransferase 18 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MGAT5 is a mannosyl (alpha-1,6-)-glycoprotein beta-1,6-N-acetyl-glucosaminyltransferase, a glycosyltransferase involved in the synthesis of protein-bound and lipid-bound oligosaccharides. Alterations of the oligosaccharides on cell surface glycoproteins cause significant changes in the adhesive or migratory behavior of a cell. Increase in the encoded protein's activity may correlate with the progression of invasive malignancies.

Additional Information

Gene ID	4249
Other Names	GNT-V; GNT-VA; MGAT5A; glcNAc-T V; 4930471A21Rik; 5330407H02Rik; GlcNAc-TV; MGT5A_HUMAN; MGAT5; Alpha-mannoside beta-1, 6-N-acetylglucosaminyltransferase V; GlcNAc-T V (GNT-V); Mannoside acetylglucosaminyltransferase 5; N-acetylglucosaminyl-transferase V; 2.4.1.155; GGNT5; MGT5A_MOUSE; Alpha-mannoside beta-1, 6-N-acetylglucosaminyltransferase; MGT5A_RAT; alpha-1, 6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase; mannosyl (alpha-1, 6-)-glycoprotein beta-1, 6-N-acetyl-glucosaminyltransferase; alpha-1, 6-mannosylglycoprotein 6-beta-N-acetylglucosaminyltransferase A
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	MGAT5
Synonyms	GGNT5
Function	Catalyzes the addition of N-acetylglucosamine (GlcNAc) in beta 1-6 linkage to the alpha-linked mannose of biantennary N-linked oligosaccharides (PubMed:10395745, PubMed:30140003). Catalyzes an important step in the biosynthesis of branched, complex-type N-glycans, such as those found on EGFR, TGFR (TGF-beta receptor) and CDH2 (PubMed:10395745, PubMed:22614033, PubMed:30140003). 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. MGAT5-dependent EGFR N-glycosylation enhances the interaction between EGFR and LGALS3 and thereby prevents rapid EGFR endocytosis and prolongs EGFR signaling. Required for efficient interaction between TGFB1 and its receptor. Enhances activation of intracellular signaling pathways by several types of growth factors, including FGF2, PDGF, IGF, TGFB1 and EGF. MGAT5-dependent CDH2 N-glycosylation inhibits CDH2-mediated homotypic cell-cell adhesion and contributes to the regulation of downstream signaling pathways. Promotes cell migration. Contributes to the regulation of the inflammatory response. 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. Required for normal leukocyte evasation and accumulation at sites of inflammation (By similarity). Inhibits attachment of monocytes to the vascular endothelium and subsequent monocyte diapedesis (PubMed:22614033).
Cellular Location	Golgi apparatus membrane {ECO:0000250|UniProtKB:P97259}; Single-pass type II membrane protein

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.