10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MGAT1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2406a

Product Information

Application	IHC-P, E
Primary Accession	P26572
Other Accession	NP_002397
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB4839
Calculated MW	50878
Antigen Region	16-46

Additional Information

Gene ID	4245
Other Names	Alpha-1, 3-mannosyl-glycoprotein 2-beta-N-acetylglucosaminyltransferase, N-glycosyl-oligosaccharide-glycoprotein N-acetylglucosaminyltransferase I, GNT-I, GlcNAc-T I, MGAT1, GGNT1, GLCT1, GLYT1, MGAT
Target/Specificity	This MGAT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 16-46 amino acids from the N-terminal region of human MGAT1.
Dilution	IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MGAT1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MGAT1
Synonyms	GGNT1, GLCT1, GLYT1, MGAT

Function	Initiates complex N-linked carbohydrate formation. Essential for the conversion of high-mannose to hybrid and complex N-glycans.
Cellular Location	Golgi apparatus membrane; Single-pass type II membrane protein. Cytoplasm, perinuclear region. Note=Co-localizes with BRI3 isoform 1 at the perinuclear region.

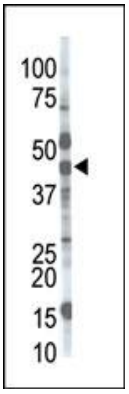
Background

There are believed to be over 100 different glycosyltransferases involved in the synthesis of protein-bound and lipid-bound oligosaccharides. MGAT1 (UDP-N-acetylglucosamine:alpha-3-D-mannoside beta-1,2-N-acetylglucosaminyltransferase I) is a medial-Golgi enzyme essential for the synthesis of hybrid and complex N-glycans. The protein, encoded by a single exon, shows typical features of a type II transmembrane protein. The protein is believed to be essential for normal embryogenesis.

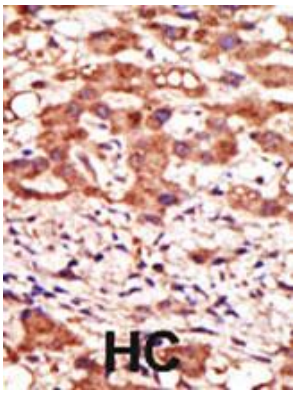
References

Tan, J., et al., Eur. J. Biochem. 231(2):317-328 (1995).
Kumar, R., et al., Glycobiology 2(4):383-393 (1992).
Hull, E., et al., Biochem. Biophys. Res. Commun. 176(2):608-615 (1991).
Kumar, R., et al., Proc. Natl. Acad. Sci. U.S.A. 87(24):9948-9952 (1990).
Yip, B., et al., Biochem. J. 321 (Pt 2), 465-474 (1997).

Images



The anti-MGAT1 Pab (Cat. #AP2406a) is used in Western blot to detect MGAT1 in mouse brain tissue lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.