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FUT7 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16272a

Product Information

Application	WB, E
Primary Accession	Q11130
Other Accession	NP_004470.1
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35568
Calculated MW	39239
Antigen Region	78-106

Additional Information

Gene ID	2529
Other Names	Alpha-(1, 3)-fucosyltransferase 7, 241-, Fucosyltransferase 7, Fucosyltransferase VII, Fuc-TVII, FucT-VII, Galactoside 3-L-fucosyltransferase, Selectin ligand synthase, FUT7
Target/Specificity	This FUT7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 78-106 amino acids from the N-terminal region of human FUT7.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	FUT7 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FUT7 (HGNC:4018)
Function	Catalyzes the transfer of L-fucose, from a guanosine diphosphate-beta-L-fucose, to the N-acetyl glucosamine (GlcNAc) of a distal

alpha2,3 sialylated lactosamine unit of a glycoprotein or a glycolipid-linked sialopolylactosamines chain through an alpha-1,3 glycosidic linkage and participates in the final fucosylation step in the biosynthesis of the sialyl Lewis X (sLe(x)), a carbohydrate involved in cell and matrix adhesion during leukocyte trafficking and fertilization (PubMed:11404359, PubMed:15632313, PubMed:15926890, PubMed:18402946, PubMed:18553500, PubMed:29593094, PubMed:8207002, PubMed:8666674, PubMed:8752218, PubMed:9299472, PubMed:9405391, PubMed:9461592, PubMed:9473504, PubMed:9499379). In vitro, also synthesizes sialyl-dimeric-Lex structures, from VIM-2 structures and both di-fucosylated and trifucosylated structures from mono-fucosylated precursors (PubMed:9499379). However does not catalyze alpha 1-3 fucosylation when an internal alpha 1-3 fucosylation is present in polylactosamine chain and the fucosylation rate of the internal GlcNAc residues is reduced once fucose has been added to the distal GlcNAc (PubMed:9473504, PubMed:9499379). Also catalyzes the transfer of a fucose from GDP-beta-fucose to the 6-sulfated a(2,3)sialylated substrate to produce 6-sulfo sLex mediating significant L-selectin- dependent cell adhesion (PubMed:10200296, PubMed:8752218). Through sialyl-Lewis(x) biosynthesis, can control SELE- and SELP-mediated cell adhesion with leukocytes and allows leukocytes tethering and rolling along the endothelial tissue thereby enabling the leukocytes to accumulate at a site of inflammation (PubMed:10386892, PubMed:29138114, PubMed:8666674, PubMed:9473504, PubMed:9834120). May enhance embryo implantation through sialyl Lewis X (sLeX)-mediated adhesion of embryo cells to endometrium (PubMed:18402946, PubMed:18553500). May affect insulin signaling by up-regulating the phosphorylation and expression of some signaling molecules involved in the insulin-signaling pathway through SLe(x) which is present on the glycans of the INSRR alpha subunit (PubMed:17229154).

Cellular Location Golgi apparatus, Golgi stack membrane; Single- pass type II membrane protein. Note=Membrane-bound form in trans cisternae of Golgi

Tissue Location Leukocytic/myeloid lineage cells.

Background

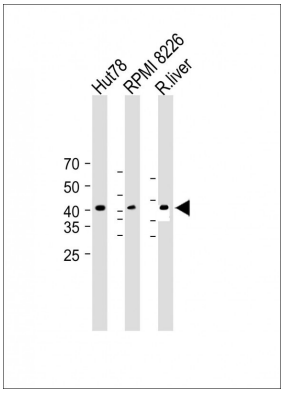
The protein encoded by this gene is a Golgi stack membrane protein that is involved in the creation of sialyl-Lewis X antigens. The encoded protein can direct the synthesis of the E-selectin-binding sialyl-Lewis X moiety.

References

Li, W., et al. Oncol. Rep. 23(6):1609-1617(2010)
Yoshida, T., et al. Int. J. Mol. Med. 25(4):649-656(2010)
Oguri, M., et al. Am. J. Hypertens. 23(1):70-77(2010)
Zhang, Y., et al. Fertil. Steril. 91(3):908-914(2009)
Wang, Q.Y., et al. J. Cell. Biochem. 104(6):2078-2090(2008)

Images

All lanes : Anti-FUT7 Antibody (N-term) at 1:1000 dilution Lane 1: Hut78 whole cell lysate Lane 2: RPMI 8226 whole cell lysate Lane 3: Rat liver l lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 39kDa Blocking/Dilution buffer: 5%



NFDM/TBST.

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