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FUT5 Rabbit pAb

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Catalog # AP54232

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P22083
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59084
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FUT5
Epitope Specificity	281-374/374
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Golgi apparatus, Golgi stack membrane; Single-pass type II membrane protein. Note=Membrane-bound form in trans cisternae of Golgi.
SIMILARITY	Belongs to the glycosyltransferase 10 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene belongs to the glycosyltransferase family. It is localized to the golgi, and catalyzes the last step in the biosynthesis of Lewis X (LeX) antigen, the addition of a fucose to precursor polysaccharides. This protein is one of the few fucosyltransferases that synthesizes the LeX oligosaccharide (CD15) expressed in the organ buds progressing in mesenchyma during embryogenesis. It is also responsible for the expression of CD15 in mature granulocytes. A common haplotype of this gene has also been associated with susceptibility to placental malaria infection. [provided by RefSeq, Nov 2011]

Additional Information

Gene ID	2526
Other Names	Alpha-(1, 3)-fucosyltransferase 4, 4-galactosyl-N-acetylglucosaminide 3-alpha-L-fucosyltransferase, 2.4.1.152, ELAM-1 ligand fucosyltransferase, Fucosyltransferase 4, Fucosyltransferase IV, Fuc-TIV, FucT-IV, Galactoside 3-L-fucosyltransferase, FUT4 {ECO:0000303|PubMed:29593094}
Target/Specificity	Liver, colon and testis and trace amounts in T-cells and brain.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

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	FUT4 {ECO:0000303|PubMed:29593094}
Function	[Isoform Short]: Catalyzes alpha(1->3) linkage of fucosyl moiety transferred from GDP-beta-L-fucose to N-acetyl glucosamine (GlcNAc) within type 2 lactosamine (LacNAc, Gal-beta(1->4)GlcNAc) glycan attached to N- or O-linked glycoproteins (PubMed:1702034, PubMed:1716630, PubMed:29593094). Robustly fucosylates nonsialylated distal LacNAc unit of the polylactosamine chain to form Lewis X antigen (CD15), a glycan determinant known to mediate important cellular functions in development and immunity. Fucosylates with lower efficiency sialylated LacNAc acceptors to form sialyl Lewis X and 6- sulfo sialyl Lewis X determinants that serve as recognition epitopes for C-type lectins (PubMed:1716630, PubMed:29593094). Together with FUT7 contributes to SELE, SELL and SELP selectin ligand biosynthesis and selectin-dependent lymphocyte homing, leukocyte migration and blood leukocyte homeostasis (By similarity). In a cell type specific manner, may also fucosylate the internal LacNAc unit of the polylactosamine chain to form VIM-2 antigen that serves as recognition epitope for SELE (PubMed:11278338, PubMed:1716630).
Cellular Location	Golgi apparatus, Golgi stack membrane; Single- pass type II membrane protein. Note=Membrane-bound form in trans cisternae of Golgi
Tissue Location	[Isoform Short]: Expressed at low levels in bone marrow-derived mesenchymal stem cells.

Background

The protein encoded by this gene belongs to the glycosyltransferase family. It is localized to the golgi, and catalyzes the last step in the biosynthesis of Lewis X (LeX) antigen, the addition of a fucose to precursor polysaccharides. This protein is one of the few fucosyltransferases that synthesizes the LeX oligosaccharide (CD15) expressed in the organ buds progressing in mesenchyma during embryogenesis. It is also responsible for the expression of CD15 in mature granulocytes. A common haplotype of this gene has also been associated with susceptibility to placental malaria infection. [provided by RefSeq, Nov 2011]