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FUT5 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54232

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q11128
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42989
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	2527
Other Names	4-galactosyl-N-acetylglucosaminide 3-alpha-L-fucosyltransferase FUT5, 2.4.1.152, 3-galactosyl-N-acetylglucosaminide 4-alpha-L-fucosyltransferase FUT5, 2.4.1.65, Fucosyltransferase 5, Fucosyltransferase V, Fuc-TV, FucT-V, Galactoside 3-L-fucosyltransferase, FUT5 (HGNC:4016)
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=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	FUT5 (HGNC:4016)
Function	Catalyzes preferentially the transfer of L-fucose, from a guanosine diphosphate-beta-L-fucose, to the N-acetyl-beta-D-glucosamine (GlcNAc) of an N-acetyllactosamine unit (type 2 chain) of an oligosaccharide, or a glycoprotein- and a glycolipid-linked N- acetyllactosamine unit via an alpha (1,3) linkage and participates in the surface expression of VIM-2, Lewis X/SSEA-1 and sialyl Lewis X antigens (PubMed:14718375, PubMed:1740457, PubMed:17604274, PubMed:29593094, PubMed:7721776, PubMed:9737988, PubMed:9737989). Preferentially transfers fucose to the GlcNAc of an internal N- acetyllactosamine unit of a poly-N-acetyllactosamine chain acceptor substrate (PubMed:17604274, PubMed:7721776). Also catalyzes to a lesser extend the transfer of L-fucose to the GlcNAc of a type 1 (beta-D-galactosyl-(1->3)-N-acetyl-beta-D-glucosaminyl) or H-type 1 (alpha-L-Fuc-(1->2)-beta-D-Gal-(1->3)-D-GlcNAc) chain oligosaccharide via an alpha (1,4) linkage (PubMed:14718375, PubMed:1740457, PubMed:17604274, PubMed:7721776, PubMed:9737988). Preferentially catalyzes sialylated type 2 oligosaccharide acceptors over neutral type 2 or H type 2 (alpha-L-Fuc-(1->2)-beta-D-Gal-(1->4)-D-GlcNAc) oligosaccharide acceptors (PubMed:1740457, PubMed:9737989). Lactose-based structures are also acceptor substrates (PubMed:1740457, PubMed:7721776).
Cellular Location	Golgi apparatus, Golgi stack membrane; Single- pass type II membrane protein. Note=Membrane-bound form in trans cisternae of Golgi
Tissue Location	Liver, colon and testis and trace amounts in T- cells and brain