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FUT9 Rabbit pAb

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Catalog # AP56175

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9Y231
Predicted	Rat, Pig, Human, Mouse, Rabbit, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42071
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FUT9
Epitope Specificity	281-359/359
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.
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	10690
Other Names	4-galactosyl-N-acetylglucosaminide 3-alpha-L-fucosyltransferase 9, 2.4.1.152, Fucosyltransferase 9, Fucosyltransferase IX, Fuc-TIX, FucT-IX, Galactoside 3-L-fucosyltransferase, FUT9 {ECO:0000303|PubMed:10929005, ECO:0000312|HGNC:HGNC:4020}
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	FUT9 {ECO:0000303|PubMed:10929005, ECO:0000312|HGNC:HGNC:4020}
Function	Catalyzes alpha(1->3) linkage of fucosyl moiety transferred from GDP-beta-L-fucose to N-acetyl glucosamine (GlcNAc) within type 2 lactosamine (LacNAc, beta-D-Gal-(1->4)-beta-D-GlcNAc-) glycan attached to glycolipids and N- or O-linked glycoproteins. Fucosylates distal type 2 LacNAc and its fucosylated (H-type 2 LacNAc) and sialylated (sialyl-type 2 LacNAc) derivatives to form Lewis x (Lex) (CD15) and Lewis y (Ley) antigenic epitopes involved in cell adhesion and differentiation (PubMed:10386598, PubMed:10622713, PubMed:11278338, PubMed:12107078, PubMed:16282604, PubMed:17335083, PubMed:18395013, PubMed:23192350, PubMed:23263199, PubMed:29593094, PubMed:37202521). Generates Lex epitopes in the brain, presumably playing a role in the maintenance of neuronal stemness and neurite outgrowth in progenitor neural cells (By similarity) (PubMed:17335083, PubMed:23000574). Fucosylates the internal type 2 LacNAc unit of the polylactosamine chain to form VIM-2 antigen that serves as recognition epitope for SELE (PubMed:23192350). Can also modify milk oligosaccharides, in particular type 2 tetrasaccharide LNnT (PubMed:37202521).
Cellular Location	Golgi apparatus, trans-Golgi network membrane; Single-pass type II membrane protein {ECO:0000250|UniProtKB:Q6P4F1}. Golgi apparatus membrane {ECO:0000250|UniProtKB:O88819}
Tissue Location	Strongly expressed in forebrain and stomach, lower expression in spleen and peripheral blood leukocytes, and no expression in small intestine, colon, liver, lung, kidney, adrenal cortex or uterus (PubMed:10386598). Highly expressed in granulocytes. Not expressed in monocytes (PubMed:11278338).

Background

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