

FUT4 Rabbit pAb

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Catalog # AP52253

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P22083
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59084
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FUT4
Epitope Specificity	251-295/433
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 Lewis histo-blood group system comprises a set of fucosylated glycosphingolipids that are synthesized by exocrine epithelial cells and circulate in body fluids. The glycosphingolipids function in embryogenesis, tissue differentiation, tumor metastasis, inflammation, and bacterial adhesion. They are secondarily absorbed to red blood cells giving rise to their Lewis phenotype. This gene is a member of the fucosyltransferase family, which catalyzes the addition of fucose to precursor polysaccharides in the last step of Lewis antigen biosynthesis. It encodes an enzyme with alpha(1,3)-fucosyltransferase and alpha(1,4)-fucosyltransferase activities. Mutations in this gene are responsible for the majority of Lewis antigen-negative phenotypes. Multiple alternatively spliced variants, encoding the same protein, have been found for this gene. [provided by RefSeq].

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}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 µg/Test

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.
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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

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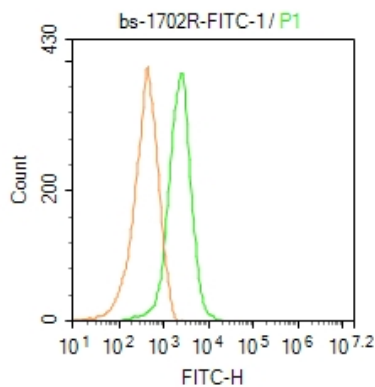
References

Gersten K.M.,et al.J. Biol. Chem. 270:25047-25056(1995).
Ozawa M.,et al.J. Biochem. 119:302-308(1996).

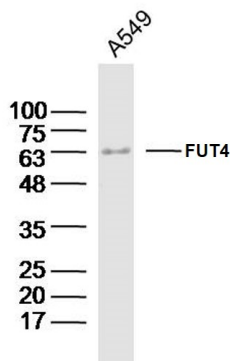
Images

Blank control: Mouse spleen.
Primary Antibody (green line): Rabbit Anti-FUT4/FITC
Conjugated antibody (AP52253-FITC)
Dilution: 1 µg /10⁶ cells;
Isotype Control Antibody (orange line): Rabbit IgG-FITC .

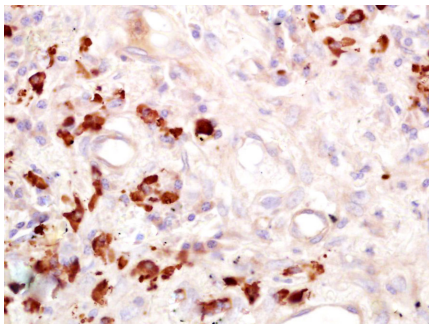
Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at -20°C. The cells were then incubated in 5% BSA



to block non-specific protein-protein interactions for 30 min at room temperature. The cells were stained with Primary Antibody for 30 min at room temperature. Acquisition of 20,000 events was performed.



Sample:A549 Cell (Human) Lysate at 40 ug Primary: Anti-FUT4(AP52253)at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 58kD Observed band size: 63kD



Paraformaldehyde-fixed, paraffin embedded (Human lung cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (FUT4) Polyclonal Antibody, Unconjugated (AP52253) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

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