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FUT4 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1837a

Specification

FUT4 Antibody - Product Information

Application	**E, WB**
Primary Accession	P22083
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2b**
Calculated MW	**59kDa KDa**

Description
The product of this gene transfers fucose to N-acetyllactosamine polysaccharides to generate fucosylated carbohydrate structures. It catalyzes the synthesis of the non-sialylated antigen, Lewis x (CD15).

Immunogen
Purified recombinant fragment of human FUT4 (AA: 199-302) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

FUT4 Antibody - Additional Information

Gene ID 2526

Other Names
Alpha-(1, 3)-fucosyltransferase 4, 2.4.1.-, ELAM-1 ligand fucosyltransferase, Fucosyltransferase 4, Fucosyltransferase IV, Fuc-TIV, FucT-IV, Galactoside 3-L-fucosyltransferase, FUT4, ELFT, FCT3A

Dilution
E~~1/10000
WB~~1/500 - 1/2000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
FUT4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

FUT4 Antibody - 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).

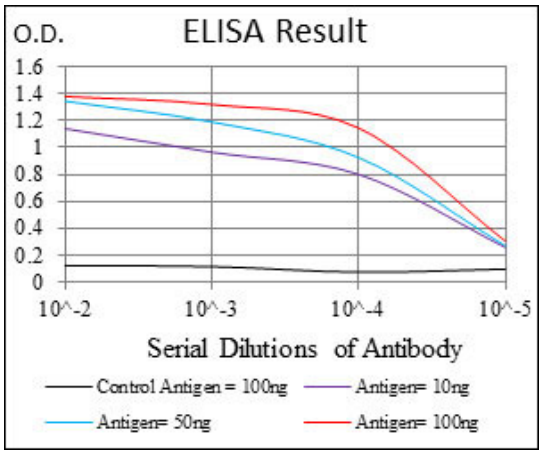
Cellular Location
Golgi apparatus, Golgi stack membrane; Single- pass type II membrane protein. Note=Membrane-bound form in trans cisternae of Golgi

Tissue Location
[Isoform Short]: Expressed at low levels in bone marrow-derived mesenchymal stem cells.

FUT4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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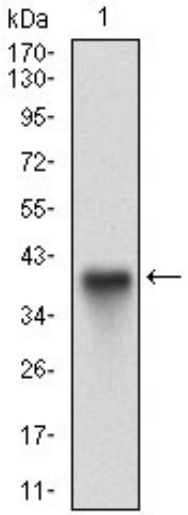

Figure 1: Western blot analysis using FUT4 mAb against human FUT4 recombinant protein. (Expected MW is 37 kDa)

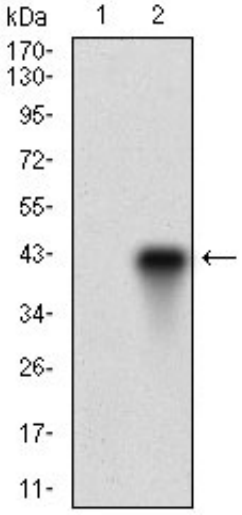

Figure 2: Western blot analysis using FUT4 mAb against HEK293 (1) and FUT4 (AA: 199-302)-hIgGFc transfected HEK293 (2) cell lysate.

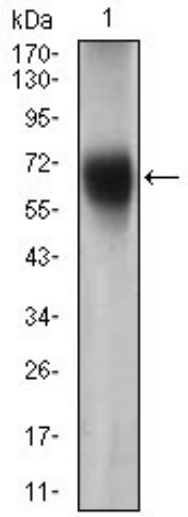

Figure 3: Western blot analysis using FUT4 mouse mAb against Jurkat cell lysate.

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FUT4 Antibody - Background

The protein encoded by this gene belongs to the perilipin family, members of which coat intracellular lipid storage droplets. This protein is associated with the lipid globule surface membrane material, and maybe involved in development and maintenance of adipose tissue. However, it is not restricted to adipocytes as previously thought, but is found in a wide range of cultured cell lines, including fibroblasts, endothelial and epithelial cells, and tissues, such as lactating mammary gland, adrenal cortex, Sertoli and Leydig cells, and hepatocytes in alcoholic liver cirrhosis, suggesting that it may serve as a marker of lipid accumulation in diverse cell types and diseases. Alternatively spliced transcript variants have been found for this gene. ; ; ;

FUT4 Antibody - References

1. J Immunol. 2011 Dec 15;187(12):6227-34. 2. PLoS One. 2011;6(9):e24584.