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FUT4 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1837a

Product Information

Application	WB, E
Primary Accession	P22083
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6B11B4
Isotype	IgG2b
Calculated MW	59084
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

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

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 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. ; ; ;

References

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

Images

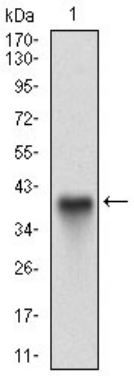


Figure 1: Western blot analysis using FUT4 mAb against human FUT4 recombinant protein. (Expected MW is 37 kDa)

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

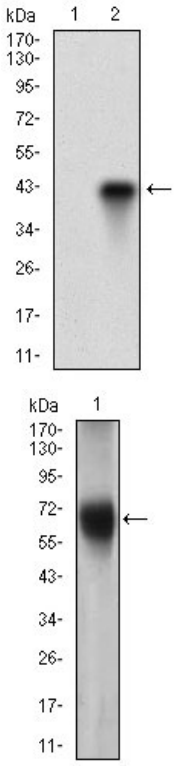


Figure 3: Western blot analysis using FUT4 mouse mAb against Jurkat cell lysate.

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