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FUT4 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM2040a

Product Information

Application	WB, E
Primary Accession	P22083
Other Accession	Q11127, NP_002024.1
Reactivity	Human
Predicted	Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgM
Clone Names	476CT26.8.4
Calculated MW	59084
Antigen Region	425-454

Additional Information

Gene ID	2526
Other Names	Alpha-(1, 3)-fucosyltransferase 4, 241-, ELAM-1 ligand fucosyltransferase, Fucosyltransferase 4, Fucosyltransferase IV, Fuc-TIV, FucT-IV, Galactoside 3-L-fucosyltransferase, FUT4, ELFT, FCT3A
Target/Specificity	This FUT4 antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 425-454 amino acids from human FUT4.
Dilution	WB~~1:500~1000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Euglobin precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. 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.

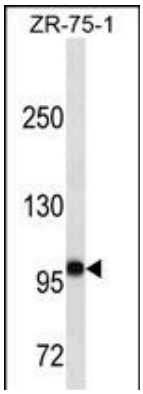
Background

The 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).

References

Yang, X.S., et al. J. Cell. Physiol. 225(2):612-619(2010)
Trubiani, O., et al. J. Cell. Physiol. 225(1):123-131(2010)
Pruszak, J., et al. Stem Cells 27(12):2928-2940(2009)
Ogata, K., et al. Haematologica 94(8):1066-1074(2009)
Read, T.A., et al. Cancer Cell 15(2):135-147(2009)

Images



FUT4 Antibody (Cat. #AM2040a) western blot analysis in ZR-75-1 cell line lysates (35µg/lane).This demonstrates the FUT4 antibody detected the FUT4 protein (arrow).

Citations

- Baicalin promotes embryo adhesion and implantation by upregulating fucosyltransferase IV (FUT4) via Wnt/beta-catenin signaling pathway.