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Anti-CD15 / FUT4 (Reed-Sternberg Cell Marker) Antibody

Recombinant Rabbit Monoclonal Antibody
Catalog # AH13257

Product Information

Application	IHC-P, IF, FC
Primary Accession	P22083
Other Accession	654379
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal
Isotype	Rabbit / IgG, kappa
Clone Names	FUT4/1478R
Calculated MW	59084

Additional Information

Gene ID	2526
Other Names	3 Fucosyl N Acetyl Lactosamine; Alpha (1, 3) Fucosyltransferase; Alpha 13 fucosyltransferase FucT; ELAM Ligand Fucosyltransferase; ELFT; FCT3A; Fuc-TIV; Fucosyltransferase 4 Alpha 1 3 Fucosyltransferase Myeloid Specific; Fucosyltransferase 4; Galactoside 3 L Fucosyltransferase; Lewis X; LeX; SSEA1; Stage Specific Embryonic Antigen 1
Application Note	Flow Cytometry (2-4ug/million cells); Immunofluorescence (2-4ug/ml); ,Immunohistology (Formalin-fixed) (5-10ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined.
Format	200ug/ml of Ab purified by Protein A Column. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & Azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Anti-CD15 / FUT4 (Reed-Sternberg Cell Marker) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

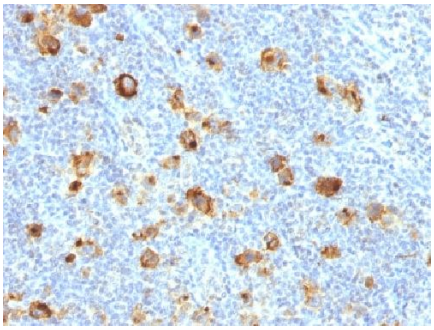
Name	FUT4 {ECO:0000303|PubMed:29593094}
Function	[Isoform Short]: Catalyzes alpha(1->3) linkage of fucosyl moiety transferred from GDP-beta-L-fucose to N-acetyl glucosamine (GlcNAc) within type 2 lactosamine (LacNAc, Gal-beta(1->4)GlcNAc) glycan attached to N- or O-linked

	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

CD15 plays a role in mediating phagocytosis, bactericidal activity, and chemotaxis. It is present on >95% of granulocytes including neutrophils and eosinophils and to a lesser degree on monocytes. In addition, CD15 is expressed in Reed-Sternberg cells and some epithelial cells. CD15 antibody is very useful in the identification of Hodgkin s disease. CD15 is occasionally expressed in large cell lymphomas of both B and T phenotypes which otherwise have a quite distinct histological appearance.

Images



Formalin-fixed, paraffin-embedded human Hodgkin's Lymphoma stained with CD15 Recombinant Rabbit Monoclonal Antibody (FUT4/1478R).