

# Sialyl Lewis a (121SLE): sc-51696

## BACKGROUND

Glycosyltransferases that mediate the regio- and stereoselective transfer of sugars, such as the fucosyltransferases, determine cell surface-carbohydrate profiles, which is an essential interface for biological recognition processes. Fucosyltransferases catalyze the covalent association of fucose to different positional linkages in sugar acceptor molecules. The carbohydrate moieties generated and covalently attached to cell surfaces are necessary to ensure a surface contour that satisfies physiological roles, which are reliant on adhesion molecules such as Selectins. Hematopoietic lineages rely on Fucosyltransferases to confer a surface carbohydrate phenotype, which mediates proper cell adhesion molecule recruitment and cell trafficking. Sialyl Lewis a is a Lewis blood group antigen which may be absorbed on the surface of erythrocytes.

## REFERENCES

1. Rye, P.D., et al. 1998. Summary report on the ISOBM TD-6 workshop: analysis of 20 monoclonal antibodies against Sialyl Lewis a and related antigens. *Tumour Biol.* 19: 390-420.
2. Wagers, A.J. and Kansas, G.S. 2000. Potent induction of  $\alpha$  1,3-fucosyltransferase VII in activated CD4<sup>+</sup> T cells by TGF $\beta$  1 through a p38 mitogen-activated protein kinase-dependent pathway. *J. Immunol.* 165: 5011-5016.
3. Huang, M.C., et al. 2000. P-Selectin glycoprotein ligand-1 and E-Selectin ligand-1 are differentially modified by fucosyltransferases Fuc-T IV and Fuc-T VII in mouse neutrophils. *J. Biol. Chem.* 275: 31353-31360.
4. Withers, D.A. and Hakomori, S.I. 2000. Human  $\alpha$  1,3-fucosyltransferase IV (FUTIV) gene expression is regulated by Elk-1 in the U937 cell line. *J. Biol. Chem.* 275: 40588-40593.
5. Taniguchi, A., et al. 2000. Expression and transcriptional regulation of the human  $\alpha$  1,3-fucosyltransferase 4 (FUT4) gene in myeloid and colon adenocarcinoma cell lines. *Biochem. Biophys. Res. Commun.* 273: 370-376.
6. Nakayama, F., et al. 2001. CD15 expression in mature granulocytes is determined by  $\alpha$  1,3-fucosyltransferase IX, but in promyelocytes and monocytes by  $\alpha$  1,3-fucosyltransferase IV. *J. Biol. Chem.* 276: 16100-16106.

## SOURCE

Sialyl Lewis a (121SLE) is a mouse monoclonal antibody raised against immunoprecipitate obtained after immunodiffusion of MA b 19-9 and mucins isolated from an ovarian cyst of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Sialyl Lewis a (121SLE) is recommended for detection of Sialyl Lewis a containing glycolipids of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Sialyl Lewis a: 45 kDa.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.