



Blood Group Lewis b (2-25LE): sc-51513

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. Blood Group Lewis b is a carbohydrate determinant carried on both glycolipids and glycoproteins.

REFERENCES

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- Withers, D.A. and Hakomori, S.I. 2000. Human $\alpha(1,3)$ -fucosyltransferase IV (FUTIV) gene expression is regulated by Elk-1 in the U-937 cell line. *J. Biol. Chem.* 275: 40588-40593.
- 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.

SOURCE

Blood Group Lewis b (2-25LE) is a mouse monoclonal antibody raised against Mucin isolated from ovarian cyst fluid of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ 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.

APPLICATIONS

Blood Group Lewis b (2-25LE) is recommended for detection of Lewis b blood group antigen of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Blood Group Lewis b: 45 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226.

SELECT PRODUCT CITATIONS

- Hu, D., et al. 2016. Association of ulcerative colitis with FUT2 and FUT3 polymorphisms in patients from southeast China. *PLoS ONE* 11: e0146557.
- Li, H. and Benghezal, M. 2017. Crude preparation of lipopolysaccharide from *Helicobacter pylori* for silver staining and Western Blot. *Bio Protoc.* 7: e2585.
- Geng, T., et al. 2018. H19 lncRNA promotes skeletal muscle Insulin sensitivity in part by targeting AMPK. *Diabetes* 67: 2183-2198.
- Lindesmith, L.C., et al. 2020. Virus-host interactions between non-secretors and human norovirus. *Cell. Mol. Gastroenterol. Hepatol.* 10: 245-267.
- Zeng, J., et al. 2024. LOX-1 acts as an N⁶-methyladenosine-regulated receptor for *Helicobacter pylori* by binding to the bacterial catalase. *Nat. Commun.* 15: 669.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.