CD15 (HI98): sc-19649

BACKGROUND

Fucosyltransferases (FucTs) catalyze the covalent association of fucose to different positional linkages on sugar acceptor molecules. The carbohydrate moieties that are generated are covalently attached to cell surfaces and are necessary to ensure a surface contour that satisfies a variety of physiological roles. CD15, also known as Lewis X or LeX, is a carbohydrate antigen that is generated by FucT-IV (α,1,3-fucosyltransferase IV). Commonly found on the surface of leukocytes and some tumor cells, CD15 is a trisaccharide that is synthesized when FucT-IV transfers an α-fucose residue onto the β-GlcNAc moiety of cellular N-acetyllactosamines. CD15 functions as an adhesion molecule capable of calcium-mediated homotypic binding. Cells with high surface expression of CD15, therefore, exhibit strong self-aggregation (based on CD15-CD15 interaction) in the presence of calcium. Additionally, CD15 is thought to be a ligand for selectins (proteins involved in mediating leukocyte-specific cellular interactions), further supporting its role as a cell-adhesion protein.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: FUT4 (human) mapping to 11q21; Fut4 (mouse) mapping to 9 A2.

SOURCE

CD15 (HI98) is a mouse monoclonal antibody raised against CD15 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD15 (HI98) is available conjugated to either phycoerythrin (sc-19649 PE) or fluorescein (sc-19649 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD15 (HI98) is recommended for detection of CD15 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Positive Controls: F9 cell lysate: sc-2245, H69AR whole cell lysate: sc-364382 or mouse kidney extract: sc-2255.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP or m-IgG BP-PE (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker TM Molecular Weight Standards: sc-2035, UltraCruz ® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-HRP: sc-516141 (dilution range: 1:50-1:200) with UltraCruz ® Mounting Medium: sc-24941 or UltraCruz ® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto- mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

CD15 (HI98): sc-19649. Western blot analysis of CD15 expression in mouse kidney tissue extract.

CD15 (HI98): sc-19649. Immunofluorescence staining of methanol-fixed HL-60 cells showing membrane staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing cytoplasmic staining of subset of hematopoietic cells (B).

SELECT PRODUCT CITATIONS


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.

PROTOCOLS

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

CONJUGATES

See CD15 (C3D-1): sc-19648 for CD15 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.

SANTA CRUZ BIOTECHNOLOGY, INC.