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SM3010F Monoclonal Antibody to CD15 - FITC

Alternate names: Lacto-N-Fucopentaose III, Lewis X, SSEA1, Stage-Specific Embryonic Antigen, X-Hapten

Quantity: 100 Tests

Background: CD15 (Lewis X, Le(x); stage specific embryonic antigen-1, SSEA-1) is a trisacharide determinant (3-fucosyl-N-acetyllactosamine) expressed on several glycolipids, glycoproteins and proteoglycans of various cell types, e.g. granulocytes, mast cells, monocytes, macrophages, cells of gastric mucosa, nervous system or various tumour cells. There are several variants of Lewis x, such as sialyl-Lewis x or sulphated Lewis x. Cells with high surface expression of Le(x) antigen exhibit strong self-aggregation, based on calcium-dependent Le(x)-Le(x) interaction. This process is involved for example in embryo compaction or in autoaggregation of teratocarcinoma cells. Sialyl-Le(x) and its isomer sialyl-Le(a) are ligands of selectins. CD15 expression has been extensively used to confirm diagnosis of Hodgkin's disease.

Host / Isotype: Mouse / IgM

Recommended Isotype Controls: SM13F

Clone: MEM-158

Immunogen: Human granulocytes

Format: **State:** Liquid purified Ig fraction
Buffer System: Phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent
Label: FITC – Conjugated with Fluorescein isothiocyanate under optimum conditions. The reagent is free of unconjugated

Applications: Suitable for Flow cytometry (Use 20 µl to label 10e6 cells or 100 µl whole blood). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: The antibody reacts with CD15, a cell membrane molecule 3-fucosyl-N-acetyllactosamine (3-FAL) strongly expressed on granulocytes, monocytes, macrophages, mast cells; it is also present on Langerhans cells and some myeloid precursors cells.
Species: Human.
Other species not tested.

Storage: Store the antibody undiluted at 4-8°C. DO NOT FREEZE! This product is photosensitive and should be protected from light. Should it contain a precipitate we recommend microcentrifugation before use. Shelf life: one year from despatch.

General Readings:
1. Benharroch D, Dima E, Levy A, Ohana-Malka O, Ariad S, Prinsloo I, Mejirovsky E, Sacks M, Gopas J: Differential expression of sialyl and non-sialyl-CD15 antigens on Hodgkin-Reed-Sternberg cells: significance in Hodgkin's disease. Leuk Lymphoma. 2000 Sep;39(1-2):185-94.

2. Hakomori S: Le(X) and related structures as adhesion molecules. Histochem J. 1992 Nov;24(11):771-6.
3. Li C, Wong P, Pan T, Xiao F, Yin S, Chang B, Kang SC, Ironside J, Sy MS: Normal cellular prion protein is a ligand of selectins: binding requires Le(X) but is inhibited by sLe(X). Biochem J. 2007 Sep 1;406(2):333-41.
4. Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).

Pictures:

Surface staining of human peripheral blood cells with anti-human CD15 (MEM-158) FITC. Cells in the granulocyte gate were used for analysis.