SM1075PS

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Monoclonal Antibody to CDw17 - Purified

Alternate names: Lactosylceramide

Catalog No.: SM1075PS

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

Background: CD17, lactosylceramide, is an ubiquitous glycosphingolipid with uncharged disaccharide headgroup, highly enriched in lipid raft-derived structures. Besides playing a pivotal role in the biosynthesis of complex glycosphingilipids, lactosylceramide is involved in cell-cell and cell-matrix interactions and in signaling events linked to cell differentiation, development, apoptosis and oncogenesis. Lactosylceramide regulates integrin functions and production of nitric oxide. Its expression defines successive stages in the maturation of myeloid cells.

Host / Isotype: Mouse / IgM

Recommended Isotype Controls: SM13P

Clone: MEM-74

Immunogen: Pre-B cell line NALM-6

Format:
State: Liquid purified Ig fraction (>95% pure by SDS-PAGE)
Purification: Gel Filtration and Precipitation Methods
Buffer System: Tris buffered saline, pH~8.0, with 15 mM Sodium Azide as preservative

Applications:
Flow Cytometry: 10 µg/ml.
Immunohistochemistry on Frozen and Paraffin Sections.
Agglutination: The antibody MEM-74 agglutinates neuraminidase-treated erythrocytes of blood group p.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: The antibody recognizes CD17, a membrane lipid moiety lactosylceramide expressed on granulocytes, monocytes and platelets.
Species: Human.
Other species not tested.

Storage: Store the anibody at 2-8°C.
DO NOT FREEZE!
Shelf life: one year from despatch.

General Readings:
1. Bhunia AK, Arai T, Bulkley G, Chatterjee S. Lactosylceramide mediates tumor necrosis factor-alpha-induced intercellular adhesion molecule-1 (ICAM-1) expression and the adhesion of neutrophil in human umbilical vein endothelial cells. J Biol Chem. 1998 Dec 18;273(51):34349-57. PubMed PMID: 9852101.

2. Spychalska J, Smoleńska-Sym G, Zdebska E, Woźniak J, Kościelak J. Quantitative analysis of LacCer/CDw17 in human myelogenous leukaemic cells. Cell Mol Biol Lett. 2003;8(4):911-7. PubMed PMID: 14668914.
3. Pannu R, Singh AK, Singh I. A novel role of lactosylceramide in the regulation of tumor necrosis factor alpha-mediated proliferation of rat primary astrocytes. Implications for astrogliosis following neurotrauma. J Biol Chem. 2005 Apr 8;280(14):13742-51. Epub 2005 Jan 24. PubMed PMID: 15668227.
4. Sharma DK, Brown JC, Cheng Z, Holicky EL, Marks DL, Pagano RE. The glycosphingolipid, lactosylceramide, regulates beta1-integrin clustering and endocytosis. Cancer Res. 2005 Sep 15;65(18):8233-41. PubMed PMID: 16166299.
5. Zhai X, Li XM, Momsen MM, Brockman HL, Brown RE. Lactosylceramide: lateral interactions with cholesterol. Biophys J. 2006 Oct 1;91(7):2490-500. Epub 2006 Jul 7. PubMed PMID: 16829567.
6. Horejsí V, Angelisová P, Bazil V, Kristofová H, Stoyanov S, Stefanová I, et al. Monoclonal antibodies against human leucocyte antigens. II. Antibodies against CD45 (T200), CD3 (T3), CD43, CD10 (CALLA), transferrin receptor (T9), a novel broadly expressed 18-kDa antigen (MEM-43) and a novel antigen of restricted expression (MEM-74). Folia Biol (Praha). 1988;34(1):23-34. PubMed PMID: 2968928.
7. Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).