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Product Data Sheet

MAB-13045

Monoclonal Antibody to CD1a (Human) purified immunoglobulin

Clone: HI149

Quantity: 100 µg

Isotype: Mouse IgG1

Specificity: The antibody HI149 reacts with CD1a (T6), a 49 KDa polypeptide associated with β 2-microglobulin expressed on cortical thymocytes (strongly), Langerhans cells, dendritic cells and some T cell leukemias and lymphomas. The antibody does not react with peripheral blood T and B lymphocytes, monocytes, granulocytes, platelets and erythrocytes.
HLDA V; WS Code CD01.01

Immunogen: Human thymocytes

Species Reactivity: Human, Other not tested

Application: **Flow Cytometry**
Immunohistochemistry (frozen sections)

Purity: > 95% (by SDS-PAGE)

Purification: Purified from ascites by protein G-affinity chromatography.

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

Lot Number: See vial label

Background: **CD1a**, together with CD1b and c, belongs to group 1 of CD1 glycoproteins. These proteins serve as antigen-presenting molecules for a subset of T cells that responds to specific lipids and glycolipids found in the cell walls of bacterial pathogens or self-glycolipid antigens such as gangliosides, and they have also roles in antiviral immunity. Unlike CD1b, CD1a is excluded from late endosomal compartments and instead traffics independently in the recycling pathway of the early endocytic system, and CD1a antigen presentation is independent upon vesicular acidification.

References:

- *Sugita M, Grant EP, van Donselaar E, Hsu VW, Rogers RA, Peters PJ, Brenner MB.: Separate pathways for antigen presentation by CD1 molecules. *Immunity*. 1999 Dec;11(6):743-52.
- *Hiromatsu K, Dascher CC, Sugita M, Gingrich-Baker C, Behar SM, LeClair KP, Brenner MB, Porcelli SA.: Characterization of guinea-pig group 1 CD1 proteins. *Immunology*. 2002 Jun;106(2):159-72.
- *Raftery MJ, Winau F, Kaufmann SH, Schaible UE, Schönrich G.: CD1 antigen presentation by human dendritic cells as a target for herpes simplex virus immune evasion. *J Immunol*. 2006 Nov 1;177(9):6207-14.
- *Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).

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