

For Research Use Only. Not for use in diagnostic procedures.

SPECIFICITY

CD1a is a member of the lipid antigen-presenting molecules family (1). Like the other CD1 proteins (group 1: CD1a, CD1b, CD1c and group 2: CD1d, CD1e), CD1a is a transmembrane protein of 43 – 49 kDa, non-covalently associated with β2-microglobulin (2). The structure and functions of CD1 molecules are reviewed in Ref. 3.

As other group 1 CD1 antigens, CD1a is found on professional antigen-presenting cells (APC) (3) such as dendritic cells and peripheral node mantle cells (3). CD1a is also strongly expressed by cortical thymocytes (4).

The BL6 monoclonal antibody has originally been described as specific for thymocytes (5) and further assigned to the CD1a cluster of differentiation at the 3rd International Workshop on Human Leucocyte Differentiation Antigens in Oxford, England, in 1989 (WS Code: 427) (6, 7).

REAGENT

IOTest CD1a-PC5 Conjugated Antibody
PN IM3610 – 100 tests – Liquid –
10 µL / test.

Clone	BL6
Isotype	IgG1, Mouse
Immunogen	Human thymocytes
Hybridoma	SP2/0-Ag14 x Balb / c
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	R-phycoerythrin-Cyanine 5 (PC5)
Molar Ratio	PC5 / Ig : 0.5 – 1.5
Fluorescence	Excites at 486–580 nm Emits at 660–680 nm

REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline pH 7.4, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin.

APPLICATION

Flow cytometry.

STATEMENT OF WARNINGS

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.

2. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C in the dark. Do not freeze.

REAGENT PREPARATION

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

PROCEDURE

This reagent is designed for flow cytometry. A wash is required to yield optimal results. Assay volume: 10 µL per 5 x 10⁵ cells in one test, or per 100 µL whole blood.

SELECTED RESEARCH

REFERENCES

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4. Boumsell, L., "Cluster report : CD1", 1989, *Leucocyte Typing IV, White Cell Differentiation Antigens*, W. Knapp, et al., Eds., Oxford University Press, 251-254.
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antigens", 1985, *J. Immunol.*, 3, 134, 1759-1765.

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7. McMichael, A.J., Gotch, F.M., "T-cell antigens: New and previously defined clusters", 1987, *Leucocyte Typing III, White Cell Differentiation Antigens*, McMichael A.J., et al., Eds., Oxford University Press, 31-62.

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