

# Monoclonal Antibody CD10

PN IM0112 – Purified – Freeze-dried – 0.2 mg – Clone ALB1

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

## SPECIFICITY

The CD10 antigen is referred to as the Common Acute Lymphoblastic Leukemia Antigen (CALLA) (1, 2). It is a type II integral membrane protein of 100 kDa, identified as the human membrane-associated neutral endo-peptidase (EC3.4.24.11) (3, 4). It is expressed on uncommitted lymphoid precursors. CD10 expression is lost as cells enter the T lineage. In the B lineage, CD10 expression is lost later in ontogeny, as cells acquire surface Ig expression. It is also expressed on activated and proliferating B cells in the germinal center, and on neutrophils (6) as well as on bone marrow stromal cells. It is also expressed on a number of other cells of epithelial origin (5,6). The ALB1 mAb was studied during the first International Workshop on Human Leucocyte Differentiation Antigens held in Paris, France, in 1984 (7).

## REAGENT

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<b>Clone</b>	ALB1
<b>Isotype</b>	IgG1, mouse
<b>Immunogen</b>	Human leukemia cells
<b>Hybridoma</b>	NS 1 x Balb/c spleen cells
<b>Source</b>	Ascites fluid
<b>Purification</b>	Protein A affinity chromatography
<b>Buffer</b>	1 mg/mL bovine serum albumin in phosphate-buffered saline

## APPLICATION

Studies of CD 10 positive cells by flow cytometry.

## STATEMENT OF WARNINGS

1. 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.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the

expiration date on the label.

4. Do not expose reagents to strong light during storage or incubation.
5. Avoid microbial contamination of reagents or incorrect results might occur.

## STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.

No preservative has been added.

## REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).

The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.

The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.

In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

## PROCEDURE

Flow cytometry: Use 2 µg (10 µL of the recommended reconstituted form) per 5 x 10<sup>5</sup> cells in one test, or per 100 µL of whole blood.

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

## SELECTED RESEARCH REFERENCES

1. Shipp, M.A., Look, A.T., "Hematopoietic differentiation antigens that are membrane-associated enzymes: cutting is the key!", 1993, Blood, 82, 1052-1070.
2. Lebien, T.W., McCormack, R.T., "The common acute lymphoblastic leukemia antigen (CD10) - Emancipation from a functional enigma", 1989, Blood, 73, 625-635.
3. Letarte, M., Vera, S., Tran, R., Addis, J.B., Onizuka, R.J., Quackenbush, E.J., Jongeneel, C.V., McInnes, R.R., "Common acute lymphocytic leukemia antigen is identical to neutral endopeptidase", 1988, J. Exp. Med., 168, 1247-1253.

4. Shipp, M.A., Vijayaraghavan, J., Schmidt, E.V., Masteller, E.L., D'adamio, L., Hersh, L.B., Reinherz, E.L., "Common acute lymphoblastic leukemia antigen (CALLA) is active neutral endopeptidase 24.11 ("enkephalinase"): direct evidence by cDNA transfection analysis", 1989, Proc. Natl. Acad. Sci. USA., 86, 297-301.
5. Braun, Martin, P.J., Ledbetter, J.A., Hansen, J.A., "Granulocytes and cultured human fibroblasts express common acute lymphoblastic leukemia-associated antigens", 1983, Blood, 61, 718-725.
6. Metzgar, R.S., Borowitz, M.J., Jones, N.H., Dowell, B.L., "Distribution of common acute lymphoblastic leukemia antigen in nonhematopoietic tissues", 1981, J. Exp. Med., 154, 1249-1254.
7. Boucheix, C., Perrot, J.Y., Mirshahi, M., Fournier, N., Billard, M., Giannoni, F., Bernadou, A., Rosenfeld, C., "Monoclonal antibodies against acute lymphoblastic leukemia differentiation antigens", 1984, Leucocyte Typing I, Bernard, A. et al., Springer Verlag, 671-672.

## PRODUCT AVAILABILITY

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## TRADEMARKS

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