

Monoclonal Antibody CD8

PN IM0102 – Purified – Freeze-dried – 0.2 mg – Clone B9.11

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

SPECIFICITY

The CD8 antigen is a disulfide linked dimer formed by the association of two subunits (α and β). The majority of CD8⁺ lymphocytes express the $\alpha\beta$ heterodimer form (1). Both α and β subunits constituting the CD8 dimers have a molecular weight (M_r) of 30 - 32 kDa. The CD8 antigen is found on a subset of human peripheral blood lymphocytes (PBL) called "cytotoxic / suppressor" T cells. It is also expressed, with a lower density, on a subset of natural killer (NK) cells. The CD8 antigen is present on approximately 26% of the PBL (2), on 80% of thymocytes (1, 3) and on a subpopulation representing 15 to 30% of bone marrow cells (4).

CD8 acts as an accessory molecule to the T cell receptor (TcR) complex during T-cell activation restricted to the class I major histocompatibility complex (MHC) (4-7).

The B9.11 monoclonal antibody reacts with the α subunit of the CD8 heterodimer.

The B9.11 monoclonal antibody has been assigned to the CD8 cluster of differentiation during the first International Workshop on Human Leucocyte Differentiation Antigens held in Paris, France in 1982 (8).

REAGENT

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Clone	B9.11
Isotype	IgG1
Immunogen	Human HLA-A2 cytotoxic T-cell clone
Hybridoma	NS1/Ag 4.1 x Balb/c spleen cells
Species	Mouse
Source	Ascites fluid
Purification	Protein A affinity chromatography

REAGENT CONTENTS

1 mg/mL bovine serum albumin in phosphate-buffered saline.

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 reagent beyond the expiration date on the vial label.
4. Avoid microbial contamination of reagent or erroneous results may occur.
5. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date on the vial label when stored at 2 – 8°C. The reconstituted form may be stored at – 20°C until the expiration date. Aliquoting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2 – 8°C. Minimize exposure to warmth.

REAGENT PREPARATION

Reconstitute with 1 mL of distilled water. No preservative has been added.

APPLICATIONS

Studies of CD8 positive cells by flow cytometry.

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

SELECTED RESEARCH REFERENCES

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3. Sprent, J., "T lymphocytes and the thymus", 1989, in *Fundamental Immunology*, 2nd edition, Paul, W.E., Ed., Raven Press, p. 69-93.

4. Clark, P., Normansell, D.E., Innes, D.J., Hess, C.E., "Lymphocyte subsets in normal bone marrow", 1986, *Blood*, 67, 1600-1606.
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6. Micelli, M.C., Parnes, J.R., "The role of CD4 and CD8 in T cell activation", 1991, *Sem. Immunol.*, 3, 133.
7. Reddy, M.M., Grieco, M.H., "Quantitative changes in T helper inducer (CD4⁺ CD45RA⁻), T suppressor inducer (CD4⁺ CD11b⁺) and T cytotoxic (CD8⁺ CD11b⁺) subsets in human immunodeficiency virus infection", 1991, *J. Clin. Lab. Anal.*, 5, 96-100.
8. Bernard, A., Brottier, P., Georget, E., Lepage, V., Boumsell, L., "Joint report of the first international workshop on human leucocyte differentiation antigens by the investigators of the participating laboratories", 1984, *Leucocyte Typing I*, Bernard, A. et al., Springer Verlag, 162.

PRODUCT AVAILABILITY

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Outside the USA, contact your local Beckman Coulter representative.

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Manufactured by:

Immunotech, a Beckman Coulter Company
130, avenue de Lattre de Tassigny, B.P. 177
13276 Marseille Cedex 9, France

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