IOTest® CD8-Pacific Blue™

PN A82791 – 50 tests – Liquid – 10 µL/test* – Clone B9.11

Analyte Specific Reagent.
Analytical and performance characteristics are not established.

SPECIFICITY

The CD8 antigen is a disulfide-linked dimer, which exists either as a CD8α homodimer or as a CD8αβ heterodimer. CD8β is required for surface expression of CD8α. The molecular weight of each monomer α and β is approximatively 32-34 kDa (1, 2). CD8 binds to a non polymorphic domain (α3 domain) of the MHC Class I molecules (3). The CD8 molecule is found on a T cell subset of human peripheral blood lymphocytes. A subset of NK cells expresses the CD8 antigen but with low to medium density of expression (4). CD8α homodimer is expressed by NK cells on γδ+ T cells. CD8 is also present on most thymocytes where it is frequently co-expressed with CD4, and on a subpopulation of bone marrow cells. The CD8 molecule acts with the T Cell Receptor (TCR) as a co-receptor for MHC class I restricted antigen recognition (5, 6). CD8 is widely used as a marker of cytotoxic T lymphocytes.
The B9.11 monoclonal antibody (mAb) reacts with the α subunit of the CD8 heterodimer.
The B9.11 mAb 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

IOTest CD8-Pacific Blue
Conjugated antibody
PN A82791 - 50 tests - Liquid - 10 µL/test*

Clone	B9.11
Isotype	IgG1, Mouse
Immunogen	Clone CTL
Hybridoma	NS1 x spleen B cells
Source	Ascites fluid
Purification	Affinity chromatography
Conjugation	Pacific Blue (PB)
Molar Ratio	Pacific Blue / Ig : 6.10 - 8.70
Fluorescence	Excites at 405 nm Emits at 455 nm

REAGENT CONTENTS

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

STATEMENTS OF WARNING

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 considered potentially infectious 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. 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.

SELECTED RESEARCH REFERENCES

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3. Salter, R.D., Benjamin, R.J., Wesley, P.K., Buxton, S.E., Garrett, T.P.J., Clayberger, C., Krensky, A.M., Norment, A.M., Littman, D.R., Parham, P., "A binding site for the T-cell co-receptor CD8 on the α3 domain of HLA-A2", 1990, Nature, 345, 41-46.
4. Terry, L.A., DiSanto, J.P., Small, T.N., Flomenberg, N., "Differential expression and regulation of the human CD8α and CD8β chains", 1990, Tissue Antigens, 35, 82-91.
5. Miceli, M.C., Parnes, J.R., "The roles of CD4 and CD8 in T cell activation", 1991, Immunol., 3, 133-141.
6. Garcia, K.C., Scott, C.A., Brunmark, A., Carbone, F.R., Peterson, P.A., Wilson, I.A., Teyton, L., "CD8 enhances formation of stable T-cell receptor/MHC class I molecule complexes", 1996, Nature, 384, 577-581.
7. Moebius, U., "Cluster report: CD8", 1989, Leucocyte Typing IV, White Cell Differentiation Antigens. W. Knapp, et al., Eds., Oxford University Press, 342-349.
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, 9-135.

TRADEMARKS

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Printed in France.
Made in France.

(*): 10 µL is the quantity of product sufficient to stain 5 x 10^5 cells in a standard immunofluorescence assay