

Monoclonal Antibody IOTest® CD20-Pacific Blue™

PN A74777 – 50 tests – Liquid – 10 µL/test* – Clone B9E9 (HRC20)

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD20 molecule is a nonglycosylated membrane-embedded protein which exhibits an hydrophobic region spanning four times the membrane. The long N- and C-terminal ends of the molecule are located within the cytoplasm. The level of phosphorylation of the cytoplasmic tail is responsible for the heterogeneity of the molecular weight ranging from 33 to 37 kDa (1). CD20 may also exist on the cell surface as a homo-oligomeric complex forming with other molecules a multimeric receptor complex (2).

The expression of CD20 is restricted to B-lineage cells. Its expression occurs early in pre-B lymphocyte development, persists in B-lymphocyte ontogeny and is lost upon ultimate plasma cell differentiation (2, 3). The CD20 molecule is present on all B lymphocytes whatever the hemato-poietic tissue where they are found (peripheral blood, lymph nodes, spleen, tonsil, or bone marrow). The CD20 antigen may be weakly expressed on a subset of resting T lymphocytes (4, 5). However, CD20 is not expressed on other leucocyte subsets including NK cells, monocytes and granulocytes.

The B9E9 (HRC20) monoclonal antibody has been assigned to the CD20 cluster of differentiation at the 5th HLDA Workshop on Human Leucocyte Differentiation Antigens in Boston, USA, in 1993 (2).

REAGENT

IOTest CD20-Pacific Blue
Conjugated antibody
PN A74777 - 50 tests - Liquid - 10 µL/test*

Clone	B9E9 (HRC20)
Isotype	IgG2a, Mouse
Immunogen	DAUDI Cell line
Hybridoma	X63 x spleen B cells
Source	Ascites fluid
Purification	Protein A affinity
Conjugation	chromatography
Molar Ratio	Pacific Blue / Ig : 5.3 - 6.5
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 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. 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

1. Tedder, T.F., Engel, P., "CD20 : a regulator of cell-cycle progression of B lymphocytes", 1994, Immunol. Today, 9, 15, 450-454.
2. Zhou, L.J., Tedder, T.F., "CD20 Workshop panel report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 511-514.
3. Uckun, F.M., "Regulation of human B-cell ontogeny", 1990, Blood, 10, 76, 1908-1923.
4. Chang, K.L., Arber, D.A., Weiss, L.M., "CD20 : a review", 1996, Appl. Immunohistochem., 1, 4, 1-15.
5. Hultin, L.E., Hausner, M.A., Hultin, P.M., Giorgi, J.V., "CD20 (pan-B cell) antigen is expressed at a low level on a subpopulation of human T lymphocytes", 1993, Cytometry, 2, 14, 196-204.

TRADEMARKS

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Printed in France.

Made in France.

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(*) : 10 µL is the quantity of product sufficient to stain
5 x 10⁵ cells in a standard immunofluorescence assay