Monoclonal Antibody IOTest® CD22-PC5.5

PN A80712 – 50 tests – Liquid – 10 µL/test* – Clone SJ10.1H11

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

SPECIFICITY

The CD22 molecule is a single chain, type I transmembrane molecule, with a molecular weight of 130 –140 kDa, composed by seven immunoglobulin-like (Ig-like) domains (1). CD22 is, like CD33 and the myelin-associated glycoprotein (MAG), a member of the sialoadhesin family (2). The N-terminal domain distal to the membrane is a V-type Ig domain whereas the others six domains proximal to the membrane are C2-type Ig domains (2). The cytoplasmic domain of CD22 includes six tyrosine residues that are possible targets for phosphorylation. Some regions of the intracytoplasmic tail are homologous to the tyrosine-based activations motifs (ITAM) and some others to the tyrosine-based inhibition motifs (ITIM) (2, 3).
CD22 appears constitutively associated with the BCR (B Cell antigen Receptor) and this may involve CD22 recognition of membrane IgM carbohydrate determinants (4–6). The CD22 molecule mediates adhesion of B-B lymphocyte interactions, and B cells and erythrocytes or leucocytes interactions (2, 5, 7, 8).
The CD22 antigen is detected in the cytoplasm early during B cell ontogeny (late pro-B stage), appears on the cell surface simultaneously with the expression of membraneous IgD, and is found on most mature B lymphocytes (1). The CD22 antigen is lost during the terminal stages of differentiation prior to the plasma cell stage (1). On peripheral whole blood, the expression of CD22 antigen is restricted to B lymphocytes.
The SJ10.1H11 monoclonal antibody has been assigned to the CD22 cluster of differentiation at the 2nd HLDA Workshop on Human Leukocyte Differentiation Antigens in Boston, USA, in 1984 (9).

REAGENT

IOTest CD22-PC5.5 Conjugated antibody
PN A80712 - 50 tests - Liquid - 10 µL/test*

Clone	SJ10.1H11
Isotype	IgG1, Mouse
Immunogen	Human NALM-1 cell line
Hybridoma	SP2/0 x spleen B cells
Source	Ascites fluid
Purification	Protein A affinity chromatography
Conjugation	R Phycoerythrin-Cyanine 5.5 (PC5.5)
Molar Ratio	PC5.5 / Ig : 0.5 - 1.5
Fluorescence	Excites at 488 nm Emits at 692 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.

PRECAUTIONS

Due to the tandem structure of the fluorochrome, PC5.5 also emits light at 575 nm. This secondary emission peak varies from lot-to-lot of PC5.5. Therefore, for multi-color analysis, the compensation matrix should be carefully checked when changing the lot of a PC5.5-conjugate.

SELECTED RESEARCH REFERENCES

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7. Lynn Wilson, G., "Genomic structure and chromosomal mapping of the human CD22 gene", 1993, J. Immunol., 11, 150, 5013.
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Made in France.

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

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