IOTest® CD22-PE

PN IM1835U – 2 mL Liquid – 20 µL / test* – Clone SJ10.1H11

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD22 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). Because these domains, pertaining to the immunoglobulin superfamily (IgSF), show sialic acid binding proteins properties, 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 tyrosines that are possible targets for phosphorylation. Some regions of the intracytoplasmic tail present homology to the tyrosine-based activations motifs (ITAM) and some others with the tyrosine-based inihbition motifs (ITIM) (2, 3).
CD22 appears constituvely associated with the BCR (B Cell antigen Receptor) and this may involve CD22 recognition of mIgM carbohydrate determinants (4-6). The CD22 mediates adhesion of B -B lymphocytes interactions, and B cells and erythrocytes or leucocytes interactions (2, 5, 7, 8).

SJ10.1H11 monoclonal antibody was assigned to the CD22 cluster of differentiation at the second International Workshop on Human Leukocyte Differentiation Antigens in Boston (1984) (9).

REAGENT

IOTest CD22-PE Conjugated Antibody
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Clone	SJ10.1H11
Isotype	IgG1, mouse
Immunogen	Human NALM1 cell line
Hybridoma	SP2/O x Balb/c
Source	Ascites fluid
Purification	Protein A affinity chromatography
Conjugation	PE (Phycoerythrin) is conjugated at 0.5 – 1.5 moles of PE per mole of Ig.
PE (Orange)	Excites at 486 – 580 nm Emits at 568 – 590 nm
Buffer	2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide.

STATEMENT OF WARNINGS

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. All specimens and samples must be considered as potentially infectious and must be handled with care (in particular: the wearing of protective gloves, gowns and goggles).
3. Do not expose reagents to strong light during storage or incubation.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Avoid contact of samples with skin mucosa and eyes. Never pipet by mouth
6. Do not use reagent beyond the expiration date on the vial label.
7. Let it come to room temperature (18 – 25°C) before use.
8. Use general 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. Minimize exposure to light.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this PE-labeled reagent (clear, colorless to pink liquid) or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used.

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

1. Kehrl,J., "CD22 workshop Panel report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 523-527.
2. Tedder, T.F., Tuscano, J., Sato,S., Kehrl, J.H., "CD22, A B lymphocyte-specific adhesion molecule that regulates antigen receptor signaling", 1997, Rev. Immunol., 15, 481 -504.
3. Unkeless, J.C., Jin, J., "Inhibitory receptors, ITIM sequences and phosphatases", 1997, Curr. Opin. Immunol., 9, 338-343.
4. Buhl, A.M., Cambier, J.C., "Co-receptor and accessory regulation of B-cell antigen receptor signal transduction", 1997, Immunol. Rev., 160, 127-138.
5. Law, C.L., Sidorenko, S.P., Clark, E.A., "Regulation of lymphocyte activation by the cell-surface molecule CD22", 1994, Immunol. Today, 9, 15, 442-449.
6. Doody, G.M., Dempsey, P.W., Fearon, D.T., "Activation of B lymphocytes : integrating signals from CD19, CD22 and FcγRIIb1", 1996, Curr. Opin. Immunol., 8, 378-382.
7. Lynn Wilson, G., Genomic structure and chromosomal mapping of the human CD22 gene, 1993, J. Immunol., 11, 150, 5013.
8. Stamenkovic, I., Sgroi, D., Aruffo, A., Sy, M.S., Anderson, T., "The B lymphocyte adhesion molecule CD22 interacts with leukocyte common antigen CD45RO on T cells and α2-6 sialyltranferase, CD75, on B cells", 1991, Cell, 66, 1133-1144.
9. Nadler, L.M., "B cell/Leukemia panel worshop: Summary and comments", 1986, Leucocyte Typing II,Vol 2, Human B lymphocytes, Reinherz, E.L., et al. Eds., Springer-Verlag, 4-43.

PRODUCT AVAILABILITY

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For additional information in the USA, call 800-526-7694.
Outside the USA, contact your local Beckman Coulter representative.
www.beckmancoulter.com

TRADEMARKS

Manufactured by:
Immunotech, a Beckman Coulter Company
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13276 Marseille Cedex 9, France

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

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