

### Analyte Specific Reagent.

Analytical and performance characteristics are not established.

#### SPECIFICITY

The CD44 antigens are transmembrane glycoproteins and members of the hyaladherin family of hyaluronan-binding proteins (1). Multiple CD44 isoforms have been described, the predominant form being CD44S, a glycoprotein of 85 kDa (2, 3).

CD44 is present on most cells or tissues, but not on platelets, hepatocytes, cardiac muscle, kidney tubular epithelium, testis and skin portions (4).

J.173 antibody does not inhibit the binding of hyaluronate to its receptor (1). It can trigger IL-2-dependent proliferation and cytotoxicity of human T cell clones in vitro (2, 3, 5-7).

The J.173 monoclonal antibody has been assigned to the CD44 cluster of differentiation at the 3rd International Workshop on Human Leucocyte Differentiation Antigens in Oxford, England, in 1986 (8).

#### REAGENT

IOTest CD44-PE Conjugated Antibody  
PN A32537 – Liquid 2 mL  
– 20 µL / test\*

**Clone** J.173  
**Isotype** IgG1 (kappa), mouse  
**Immunogen** LAZ 221 ALL  
**Hybridoma** NS1 x Balb/c  
**Source** Ascites fluid  
**Purification** Ion exchange or affinity chromatography  
**Conjugation** R-phycoerythrin (PE) is conjugated at 0.5 – 1.5 moles of PE per mole of Ig.

Excitation wavelength: 488 nm  
Maximum emission wavelength: 575 nm  
Main emission color: Orange-red.

#### REAGENT CONTENTS

This reagent is provided in phosphate-buffered saline containing 0.1% sodium azide (NaN<sub>3</sub>) as preservative, and 2 mg/mL bovine serum albumin (BSA).

#### 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. 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 reagent beyond the expiration date on the vial label.
5. Minimize exposure of reagent to light during storage or incubation.
6. Avoid microbial contamination of reagent or erroneous results may occur.
7. Use good laboratory practices when handling this reagent.

#### STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date printed on the vial label when stored at 2 – 8°C in the dark. 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 preparation is necessary. This reagent is used directly from the vial. Bring reagent to 18 – 25°C prior to use.

#### SELECTED RESEARCH REFERENCES

1. Culty, M., Miyake, K., Kincade, P.W., Silorski, E., Butcher, E.C., Underhill, C., "The hyaluronate receptor is a member of the CD44 (H-CAM) family of cell surface glycoproteins", 1990, J. Cell Biol., 111, 2765-2774.

2. Haynes, B.F., Liao, H-X., Patton, K.L., "The transmembrane hyaluronate receptor (CD44): Multiple functions, multiple forms", 1991, Cancer Cells, 9, 3.
3. Stamenkovic, I., Amiot, M., Pesando, J.M., Seed, B., "A lymphocyte molecule implicated in lymph node homing is a member of the cartilage link protein family", 1989, Cell, 56, 1057-1062.
4. Patel, D.D., Liao, H-X., Haynes, B.F., "CD44 Workshop Panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 373-375.
5. Galandrini, R., Albi, N., Tripodi, G., Zarcone, D., Terenzi, A., Moretta, A., Grossi, C.E., Velardi, A., "Antibodies to CD44 trigger effector functions of human T cell clones", 1993, J. Immunol., 150, 4225-4235.
6. Brezinschek, R.I., Lipsky, P.E., Galea, P., Vita, R., Oppenheimer-Marks, N., "Phenotypic characterization of CD4<sup>+</sup> T-cells that exhibit a transendothelial migratory capacity", 1995, J. Immunol., 154, 3062-3077.
7. Lagresle, C., Bella, C., Daniel, P.T., Krammer, P.H., Defrance, T., "Regulation of germinal center B cell differentiation", 1995, J. Immunol., 154, 5746-5756.
8. Cobbold, S., Hale, G., Waldmann, H., "Non-lineage, LFA-1 family, and leukocyte common antigens: New and previously defined clusters", 1987, Leucocyte Typing III, White Cell Differentiation Antigens, McMichael A.J., et al., Eds., Oxford University Press, 788-803.

#### PRODUCT AVAILABILITY

IOTest CD44-PE Conjugated Antibody  
PN A32537 – Liquid 2 mL  
– 20 µL / test\*

PE is licensed under patent 4,520,110

For additional information in the USA, call 800-526-7694.

\* 20 µL is the quantity of product sufficient to stain 5 x 10<sup>5</sup> cells in a standard immunofluorescence assay

# IOTest<sup>®</sup> CD44-PE

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**PN A32537 – Liquid 2 mL – 20 µL / test\* – Clone J.173**

Outside the USA, contact your local Beckman Coulter representative.

[www.beckmancoulter.com](http://www.beckmancoulter.com)

## **TRADEMARKS**

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5 x 10<sup>5</sup> cells in a standard immunofluorescence assay