

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD48 antigen is a glycosyl phosphatidylinositol-(GPI)-anchored membrane glycoprotein of 40-47 kDa (1, 2). With 2 extracellular immunoglobulin (Ig)-like domains, CD48 belongs to the Ig superfamily. CD48, expressed on all lymphocytes and monocytes (3), has been shown to be a low affinity ligand for CD2, suggesting a role in leucocyte adhesion (4). CD48 has been shown to participate to CD40-mediated activation of B cells (5).

The J4-57 monoclonal antibody (mAb), previously published as J51, reacts with a protein of 45 kDa (6). The J4-57 mAb has been assigned (as Ab. No. N47) to the CD48 cluster of differentiation at the 4th International Workshop on Human Leucocyte Differentiation Antigens in Vienna, Austria, in 1989 (1) and further described in Ref. 5.

REAGENT

IOTest CD48-FITC Conjugated Antibody
PN IM1837U – 2 mL Liquid – 20 µL / test*.

Clone	J4-57
Isotype	IgG1, mouse
Immunogen	FKLY 18
Hybridoma Source	NS1 x Balb/c Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	FITC (Fluorescein isothiocyanate) is conjugated at 15 – 25 moles of FITC per mole of Ig.
Fluorescence	FITC (Green) Excites at 468 – 509 nm Emits at 504 – 541 nm

REAGENT CONTENTS

This reagent is provided in phosphate-buffered saline, with 0.1% sodium azide (NaN₃) as preservative, and 2.0 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. Do not use antibody beyond the expiration date on the label.
3. Samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
4. Never pipet by mouth and avoid contact of samples with skin and mucous membranes
5. Minimize exposure of reagent to 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. Minimize exposure to light.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this FITC-labeled reagent (clear, colorless to yellowish-green 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 monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

SELECTED RESEARCH REFERENCES

1. Hadam, M.R., "Cluster report: CD48", 1989, Leucocyte Typing IV, White Cell Differentiation Antigens. W. Knapp, et al., Eds., Oxford University Press, 661-665.
2. Staunton, D.E., Fisher, R.C., LeBeau, M.M., Lawrence, J.B., Barton, D.E., Francke, U., Dustin, M., Thorley-Lawson, D.A., "Blast-1 possesses a glycosyl-phosphatidylinositol (GP1) membrane anchor, is related to LFA-3

and OX-45, and maps to chromosome 1q21-23", 1989, J. Exp. Med., 169, 1087-1099.

3. Lo, M., Mouhtouris, E., Sandrin, M.S., "CD48 Workshop Panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 509-512.
4. Sandrin, M.S., Mouhtouris, E., Vaughan, H.A., Warren, H.S., Parish, C.R., "CD48 is a low affinity ligand for human CD2", 1993, J. Immunol., 9, 151, 4606-4613.
5. Klyushenkov, E.N., Li, L., Armitage, R.J., Choi, Y.S., "CD48 delivers an accessory signal for CD40-mediated activation of human B cells", 1996, Cellular Immunol., 174, 90-98.
6. Pesando, J.M., Hoffman, P., Abed, M., "Antibody-induced antigenic modulation is antigen dependent: Characterization of 22 proteins on a malignant human B-cell line", 1986, J. Immunol., 11, 137, 3689-3695.

PRODUCT AVAILABILITY

IOTest CD48-FITC Conjugated Antibody
PN IM1837U – 2 mL Liquid – 20 µL / test*.

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

Outside the USA, contact your local Beckman Coulter representative.

www.beckmancoulter.com

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

