IOTest® CD49d-FITC

PN IM1404U – 2 mL Liquid – 20 µL / test* – Clone HP2/1

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

CD49d is the integrin α4 chain that non-covalently pairs with CD29 (β 1 chain) to form the very late activation antigen 4 (VLA-4), or with the integrin β 7 chain (1). CD49d is a transmembrane glycoprotein of 145 kDa devoid of disulfide bond. Complexed to β 1 or β 7 integrins, CD49d is not only involved in cell adhesion to fibronectin and vascular cell adhesion molecule 1 (VCAM-1) but also in intercellular leucocyte interactions (2, 3). The expression of CD49d on human cells is reviewed in Ref. 2.

The HP2/1 antibody, originally described as reactive to VLA-3 (4), was finally assigned as antibody No. P91 to the CD49d cluster of differentiation at the IVth International Workshop on Human Leucocyte Differentiation Antigens in Vienna, Austria, in 1989 (5). It was further studied as antibody No. S207 at the Vth International Workshop on Human Leucocyte Differentiation Antigens in Boston, U.S.A., in 1993 (6).

REAGENT

IOTest CD49d-FITC Conjugated Antibody
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Clone	HP2/1
Isotype	IgG1, mouse
Immunogen	M leukemia line
Hybridoma	Myeloma x 63 Ag8.653 x Balb/c
Source	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 (NaN_3) 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. Hemler, M.E., Bodorova, J., Kawaguchi, S., Weitzman, J., Kassner, P., "Adhesion structure subpanel 6, B1 integrins/VLA: CD29/CD49", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1609-1612.
2. Tanaka, Y., Saito, K., "CD49d Workshop Panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 396-399.
3. Campanero, M., "Functional role of α 2 / β 1 and α 4 / β 1 integrins in leucocyte intercellular adhesion induced through the common β 1 subunit", 1992, Eur. J. Immunol., 22, 3111-3119.
4. Sanchez-Madrid, F., De Landazuri, M.O., Morago, G., Cebrian, M., Acevedo, A., Bernabeu, C., "VLA-3 : a novel polypeptide association within the VLA molecular complex : cell distribution and biochemical characterization", 1986, Eur. J. Immunol., 16, 1343-1349.
5. Von Dem Borne, A.E.G.K., Modderman, P.W., Admiraal, L.G., Nieuwenhuis, H.K., "Platelet antibodies, the overall results", 1989, Leucocyte Typing IV, White Cell Differentiation Antigens. W. Knapp, et al., Eds., Oxford University Press, 951-966.
6. Hemler, M.E., Kossner, P., Bodorova, J., "CD49d : cluster report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1617-1618.

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