

For Research Use Only. Not for use in diagnostic procedures.

SPECIFICITY

The CD49b antigen (GPIa) is the 160 kDa integrin $\alpha 2$ chain which is non-covalently associated with the 130 kDa integrin $\beta 1$ -Chain (CD29 molecule) forming the VLA-2 complex (GPIa/IIa). It is known as the collagen receptor. CD49b antigen is expressed by platelets, activated T lymphocytes and thymocytes.

The Gi9 monoclonal antibody has been assigned to the CD49b cluster of differentiation at the 5th International Workshop on Human Leukocyte Differentiation Antigens held in Boston, USA, 1993 (1).

REAGENT

Iotest CD49b-FITC – Monoclonal Antibody
PN IM1425 – Purified – Freeze dried – 0.2 mg

Clone Gi9

Isotype IgG1,kappa Mouse

Immunogen Isolated human platelets

Hybridoma X63 Ag 8653 x Balb/c

Source Ascites fluid

Purification Ion exchange or affinity chromatography

Conjugation Fluorescein isothiocyanate (FITC)

Molar Ratio FITC / Ig : 6.5 – 7.5

Fluorescence Excites at 486-509
Emits at 504-541

REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline pH 7.4, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin.

APPLICATION

Flow cytometry.

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 they might transmit 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 in the dark. 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.

PROCEDURE

This reagent is designed for flow cytometry. A wash is required to yield optimal results
Assay volume: 20 µL per 5 x 10⁵ cells in one test, or per 100 µL whole blood.

SELECTED RESEARCH REFERENCES

1. Hemler, M.E., Bodorova, J., Kawaguchi, S., Weitzman, J., Kassner, P., "Adhesion structure subpanel 6, $\beta 1$ integrins / VLA: CD29 / CD49", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1609-1612.
2. Pischel, K.D., Bluestein, H.G., Woods, V.L. Jr., "Platelet glycoproteins Ia, Ic and IIa are physicochemically indistinguishable from the very late activation antigens adhesion-related

proteins of lymphocytes and other cell types", 1988, J. Clin. Invest., 81, 505-513.

3. Hemler, M.E., Kawaguchi, S., Bodorova, J., "CD49b cluster report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1615-1616.
4. Tanaka, Y., Fujii, K., "CD49b Workshop Panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 388-390.
5. Santoso et al., "The human platelet alloantigens Bra and Brb are associated with a single amino acid polymorphism on glycoprotein Ia (integrin subunit $\alpha 2$)", 1993, J. Clin. Invest., 92, 2427-2432.
6. Tuszynski, G.P., Kowaiska, M.A., "Thrombospondin-induced adhesion of human platelets", 1991, J. Clin. Invest., 87, 1387-1394.

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