

### Analyte Specific Reagent.

Analytical and performance characteristics are not established.

#### SPECIFICITY

CD49e is a transmembrane glycoprotein of 160 kDa, also known as the  $\alpha 5$  integrin and as platelet GPIc (1, 2). CD49e is composed of a 135 kDa chain linked via a disulfide bond to a 25 kDa chain (1). CD49e non-covalently pairs with CD29, the  $\beta 1$  integrin or platelet GPIIa, to form the VLA-5 (very late activation antigen 5) complex (3), which is involved in cell adhesion to fibronectin (4). The structure, function and cellular distribution of CD49e are summarized in Ref. 5.

The SAM1 monoclonal antibody was first described in Ref. 6 as specific for the 135 kDa chain of CD49e. It has been assigned to the CD49e cluster of differentiation at the 5th International Workshop on Human Leucocyte Differentiation Antigens in Boston, U.S.A., in 1993 (4) and further used as reference antibody N° 23 during the 6th International Workshop on Human Leucocyte Differentiation Antigens in Kobe, Japan, in 1996 (7).

#### REAGENT

IOTest CD49e-FITC Conjugated Antibody  
PN IM1854U – 2 mL Liquid – 20 µL / test\*.

<b>Clone</b>	SAM1
<b>Isotype</b>	IgG2b, mouse
<b>Immunogen</b>	BK melanoma cells
<b>Hybridoma</b>	SP2/0 x Balb/c
<b>Source</b>	Ascites fluid
<b>Purification</b>	Ion exchange or affinity chromatography
<b>Conjugation</b>	FITC (Fluorescein isothiocyanate) is conjugated at 4 – 5 moles of FITC per mole of Ig.
<b>Fluorescence</b>	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<sub>3</sub>) 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. 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.
2. Hemler, M.E., Huang, C., Schwarz, L., "The VLA protein family", 1987, J. Biol. Chem., 7, 262, 3300-3309.
3. 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.

4. Hemler, M.E., Pujades, C., Bodorova, J., "CD49e (VLA-5 $\alpha$ ) cluster report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1618-1619.
5. Takada, Y., "CD49e Workshop Panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 399-401.
6. Te Velde, A., Klomp, J.P.G., Yard, B.A., De Vries, J.E., Figdor, C.G., "Modulation of phenotypic and functional properties of human peripheral blood monocytes by IL-4", 1988, J. Immunol., 5, 140, 1548-1554.
7. Miyasaka, M., Tanaka, T., Goda, K., Takeuchi, E., "Adhesion structures: Section report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 333-342.

#### PRODUCT AVAILABILITY

IOTest CD49e-FITC Conjugated Antibody  
PN IM1854U – 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](http://www.beckmancoulter.com)

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(\*) : 20 µL is the quantity of product sufficient to stain

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