

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

CD9 (p24 antigen) is a single transmembrane polypeptide of 24 kDa related to the tetraspanin (TM4) family. Like other tetraspanins (e.g. CD63, CD81, CD82, CD37, CD53, among the 20 known members), CD9 structure is composed of 4 transmembrane domains, with intracellular N and C termini (1). First discovered on a lymphoblastic cell line of pre-B phenotype (2), CD9 was then found on platelets and in their alpha-granules (3). CD9 is also expressed in various tissues as summarized in Reference 4. The CD9 molecule associates with other surface proteins such as VLA (very late activation) integrins and HLA-DR, suggesting a role in adhesion, signal transduction and cell motility (5).

The ALB6 monoclonal antibody (mAb) was first reported as specific for CD9 (p24) on platelets, capable of modulating aggregation of platelets activated with various agonists (3). The ALB6 mAb has been assigned (Ab. No. 888) to the CD9 cluster of differentiation at the 3rd International Workshop on Human Leucocyte Differentiation Antigens (HLDA) in Oxford, England, in 1986 (6) and further studied as Ab. No. P083 during the 5th International Workshop on HLDA in Boston, U.S.A., in 1993 (7).

REAGENT

IOTest CD9-FITC Conjugated Antibody

PN IM1755U – 2 mL Liquid – 20 µL / test*.

Clone	ALB6
Isotype	IgG1, mouse
Immunogen	Human bone marrow malignant cells from acute non-T, non-B leukemia
Hybridoma Source	NS1/AG14.1 x Balb/c Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	FITC (Fluorescein isothiocyanate) is conjugated at 6 – 8 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. Maecker, H.T., Todd, S.C., Levy, S., "The tetraspanin superfamily: Molecular facilitators", 1997, FASEB J., 11, 428-442.
2. Kersey, J.H., LeBien, T.W., Abramson, C.S., Newman, R., Sutherland, R., Greaves, M., "p24: A human leukemia-associated and lymphohemopoietic progenitor cell surface structure identified with monoclonal antibody", 1981, J. Exp. Med., 153, 726-731.
3. Boucheix, C., Soria, C., Mirshahi, M., Soria, J., Perrot, J.-Y., Fournier, N.,

Billard, M., Rosenfeld, C.,

"Characteristics of platelet aggregation induced by the monoclonal antibody ALB₆ (acute lymphoblastic leukemia antigen p24). Inhibition of aggregation by ALB₆ Fab", 1983, FEBS, 2, 161, 289-295.

4. de Haas, M., von dem Borne, A.E.G.Kr., "CD9 Workshop Panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 629-631.
5. Rubinstein, E., Le Naour, F., Lagaudrière-Gesbert, C., Billard, M., Conjeaud, H., Boucheix, C., "CD9, CD63, CD81, and CD82 are components of a surface tetraspanin network connected to HLA-DR and VLA integrins", 1996, Eur. J. Immunol., 26, 2657-2665.
6. Horton, M.A., Hogg, N., "Platelet antigens: New and previously defined clusters", 1987, Leucocyte Typing III, White Cell Differentiation Antigens, McMichael A.J., et al., Eds., Oxford University Press, 733-746.
7. Jennings, L.K., Crossno Jr, J.T., White, M.M., "CD9 cluster workshop report: Cell surface binding and functional analysis", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1249-1251.

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.

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

5 x 10⁵ cells in a standard immunofluorescence assay