Monoclonal Antibody CD49e

PN IM0771 – Purified – Freeze-dried – 0.2 mg – Clone SAM1

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

SPECIFICITY

The CD49e antigen is the 160 kDa integrin α5-chain, which is composed of a heavy chain of 135 kDa and a light chain of 25 kDa linked by a disulfide bond. CD49e is non-covalently associated with the 130 kDa integrin β1-chain (CD29), forming the VLA-5 complex (1, 2). CD49e is expressed by monocytes, platelets and two myeloid cell lines (U937, K562).

It is known as the fibronectin and invasin receptor. It is useful for basic studies of fibronectin mediated adhesion.

The SAM1 monoclonal antibody (mAb) strongly reacts with monocytes, and weakly with granulocytes, platelets and T lymphocytes. In normal tissues, SAM1 stains endothelial cells.

The SAM1 mAb has been assigned to the CD49e cluster of differentiation at the fifth International Workshop on Human Leucocyte Differentiation Antigens held in Boston, USA, in 1993 (3).

REAGENT

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Clone	SAM1
Isotype	IgG2b, mouse
Immunogen	Melanoma cell line (BK-Mole syndrome)
Hybridoma	Myeloma SP2/0 x Balb/c spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Buffer	1 mg/mL bovine serum albumin in phosphate-buffered saline

APPLICATION

Studies of CD49e positive cells by flow cytometry.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the expiration date on the label.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.

No preservative has been added.

REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).

The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.

The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.

In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

SELECTED RESEARCH REFERENCES

1. Klingemann, H.G., Dedhar, S., “Distribution of integrins on human peripheral blood mononuclear cells”, 1989, Blood, 74, 1348-1354.
2. Hemler, M., Crouse, C., Takada, Y., Sonnenberg, A., “Multiple Very Late Antigen (VLA) heterodimers on platelets”, 1988, J. Biol. Chem., 263, 7660-7665.
3. Hemler, M.E., Pujades, C., Bodorova, J., “CD49e (VLA-5α) cluster report”, 1995, Leucocyte Typing V, White Cell Differentiation Antigens, Schlossman, et al., Eds., Oxford University Press, 1618-1619.

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

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