CELL LAB Rat Anti-Mouse CD49e/VLA-5

Cat. No.	Form	Quantity
732172	Purified (UNLB) Antibody	0.5 mg
732173	Fluorescein (FITC) Conjugate	0.5 mg
732174	Fluorescein (FITC) Conjugate	0.1 mg
732175	Biotin (BIOT) Conjugate	0.5 mg
732176	Phycoerythrin (PE) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: 5H10-27 (MFR5)
Isotype: Rat (Lewis) IgG2aκ
Immunogen: C57BL/6 x A/J F1 mouse mast cell line MC/9[1]
Specificity: α5 subunit of the integrin α5β1 fibronectin receptor

Monoclonal antibody 5H10-27 reacts with the α5 chain (VLA-5) of the CD49e/CD29 heterodimeric fibronectin receptor. It is expressed on thymocytes, activated T cells, mast cells, and a variety of mouse cell lines.[1-5] Soluble 5H10-27 antibody inhibits VLA-5-mediated functions *in vitro*.[1-4,6] Immobilized 5H10-27 has also been demonstrated to co-stimulate the proliferative response of $CD8^+$ T cells to plate-bound anti-CD3 monoclonal antibody.[3]

APPLICATIONS

- Flow cytometry[1]
- *In vitro* blocking of adhesion[1-4,6]
- Immunohistochemistry (acetone-fixed, frozen tissue sections)
- T-cell co-stimulation[3]

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using flow cytometry.

WORKING DILUTIONS

Flow Cytometry:	Purified antibody	≤1 μg/10^6 cells
	FITC conjugate	≤1 μg/10^6 cells
	BIOT conjugate	≤1 μg/10^6 cells
	PE conjugate	≤0.3 μg/10^6 cells

Other Applications: Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.
- The fluorescein (FITC) conjugates are supplied as 0.5 mg or 0.1 mg in 1.0 mL of PBS/NaN_3.

- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3.
- The phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN_3 and a stabilizing agent.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

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 reagent beyond the expiration date on the vial label.
4. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic 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, immediately wash excessively with water.

TRADEMARKS

The Beckman Coulter logo is a trademark of Beckman Coulter, Inc.

For additional information or if damaged product is received, contact your local Beckman Coulter Representative.

REFERENCES

1. Kinashi T and Springer TA. 1994. Adhesion molecules in hematopoietic cells. *Blood Cells*, 20:25-44.
2. Halvorson MJ and Coligan JE. 1995. Enhancement of VLA integrin receptor function on thymocytes by cAMP is dependent on the maturation stage of the thymocytes. *J Immunol*, 155:4567-4574.
3. Rich S, Van NN and Lee HM. 1996. Role of alpha 5 beta 1 integrin in TGF-beta 1-costimulated CD8+ T cell growth and apoptosis. *J Immunol*, 157:2916-2923.
4. Uhlenkott CE, Huijzer JC, Cardeiro DJ, Elstad CA and Meadows GG. 1996. Attachment, invasion, chemotaxis, and proteinase expression of B16-BL6 melanoma cells exhibiting a low metastatic phenotype after exposure to dietary restriction of tyrosine and phenylalanine. *Clin Exp Metastasis*, 14:125-137.
5. Hemler ME. 1990. VLA proteins in the integrin family: structures, functions, and their role on leukocytes. *Annu Rev Immunol*, 8:365-400.
6. Schultz JF and Armant DR. 1995. Beta 1- and beta 3-class integrins mediate fibronectin binding activity at the surface of developing mouse peri-implantation blastocysts. Regulation by ligand-induced mobilization of stored receptor. *J Biol Chem*, 270:11522-11531.

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Printed in USA
Made in USA

PN 733940-A