



CELL LAB Rat Anti-Mouse LPAM-1 (Integrin $\alpha_4\beta_7$)

<u>Cat. No.</u>	<u>Form</u>	<u>Quantity</u>
732339	Purified (UNLB) Antibody	0.5 mg
732340	Biotin (BIOT) Conjugate	0.5 mg
732341	Phycoerythrin (PE) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: DATK32
Isotype: Rat (Fischer) IgG2a κ
Immunogen: AKR/Cum mouse spontaneous T lymphoma cell line TK1¹
Specificity: Mouse LPAM-1 (Integrin $\alpha_4\beta_7$)

The lymphocyte Peyer's patch adhesion molecule (LPAM-1), also known as integrin $\alpha_4\beta_7$, is a member of the integrin family of cell surface receptors. It is expressed primarily on mucosal lymphocytes, but is also present on NK cells and eosinophils. The $\alpha_4\beta_7$ heterodimer mediates the binding of lymphocytes to its ligand, mucosal vascular addressin (MAdCAM-1) on the high endothelial venules, thereby directing the homing of lymphocytes into Peyer's patches and intestinal lamina propria.¹⁻⁴ Monoclonal antibody DATK32 recognizes a conformational epitope on the heterodimer.^{1,2}

APPLICATIONS

- Flow cytometry¹⁻⁴
- Blockade of binding to cell adhesion molecules¹
- Induction of homotypic cellular aggregation¹
- Immunohistochemistry (acetone-fixed, frozen sections)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	$\leq 1 \mu\text{g}/10^6$ cells
BIOT conjugate	$\leq 1 \mu\text{g}/10^6$ cells
PE conjugate	$\leq 0.1 \mu\text{g}/10^6$ 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 biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The Phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ 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. Andrew DP, Berlin C, Honda S, Yoshino T, et al. 1994. Distinct but overlapping epitopes are involved in alpha 4 beta 7-mediated adhesion to vascular cell adhesion molecule-1, mucosal addressin-1, fibronectin, and lymphocyte aggregation. *J Immunol*, 153:3847-3861.
2. Andrew DP, Rott LS, Kilshaw PJ, et al. 1996. Distribution of alpha 4 beta 7 and alpha E beta 7 integrins on thymocytes, intestinal epithelial lymphocytes and peripheral lymphocytes. *Eur J Immunol*, 26:897-905.
3. Hamann A, et al. 1994. Role of alpha 4-integrins in lymphocyte homing to mucosal tissues in vivo. *J Immunol*, 152:3282-3293.
4. Berlin C, Berg EL, Briskin MJ, et al. 1993. Alpha 4 beta 7 integrin mediates lymphocyte binding to the mucosal vascular addressin MAdCAM-1. *Cell*, 74:185-195.



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