

## Anti-Mouse LPAM-1 PE

Catalogue Number : 83212-60

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

### Product Information

**Clone:** DATK32

**Format/Conjugate:** PE

**Concentration:** 0.2 mg/mL

**Reactivity:** Mouse

**Laser:** Blue (488nm), Yellow/Green (532-561nm)

**Peak Emission:** 578nm

**Peak Excitation:** 496nm

**Filter:** 585/40

**Brightness (1=dim,5=brightest):** 5

**Isotype:** Rat IgG2a, kappa

**Formulation:** Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, pH7.2.

**Storage:** Product should be kept at 2-8°C and protected from prolonged exposure to light.

**Applications:** FC

### Description

The DATK32 monoclonal antibody specifically reacts with an epitope of the Mouse  $\alpha 4 \beta 7$  integrin (LPAM-1). The two subunits of the LPAM-1 heterodimer are the 154 kDa  $\alpha 4$  and the 130 kDa  $\beta 7$ . Most mature lymphocytes, a subset of bone marrow cells, and some of the thymic cells express the  $\alpha 4 \beta 7$  integrin heterodimer.  $\alpha 4 \beta 7$  enhances the transendothelial migration of lymphocytes, and interacts with several ligands (fibronectin, CD106, and MAdCAM-1). The interaction of DATK32 with the  $\alpha 4 \beta 7$  induces the  $\alpha 4 \beta 7$ -dependent lymphocyte aggregation and inhibits LPAM-1-mediated cell adhesion.

### Preparation & Storage

The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

### Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. For flow cytometric staining, the suggested use of this reagent is ≤0.5 ug per million cells in 100  $\mu$ l volume. It is recommended that the reagent be titrated for optimal performance for each application.

### References

- Andrew, D. P., Berlin, C., Honda, S., Yoshino, T., Hamann, A., Holzmann, B., ... ; Butcher, E. C. (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.; *The Journal of Immunology*,;153(9), 3847-3861.
- Berlin, C., Berg, E. L., Briskin, M. J., Andrew, D. P., Kilshaw, P. J., Holzmann, B., ... ; Butcher, E. C. (1993).  $\alpha 4 \beta 7$  integrin mediates lymphocyte binding to the mucosal vascular addressin MAdCAM-1.; *Cell*,;74(1), 185-195.
- Rivera-Nieves, J., Olson, T., Bamias, G., Bruce, A., Solga, M., Knight, R. F., ... ; Ley, K. (2005). L-selectin,  $\alpha 4 \beta 1$ , and  $\alpha 4 \beta 7$  integrins participate in CD4+ T cell recruitment to chronically inflamed small intestine.; *The Journal of Immunology*,174(4), 2343-2352.