

## FITC anti-rat CD49d

**Catalog # / Size:** 200103 / 50 µg

**Clone:** MRα4-1

**Isotype:** Mouse IgG2a, κ

**Immunogen:** RBL-2H3 rat basophilic leukemia cell line

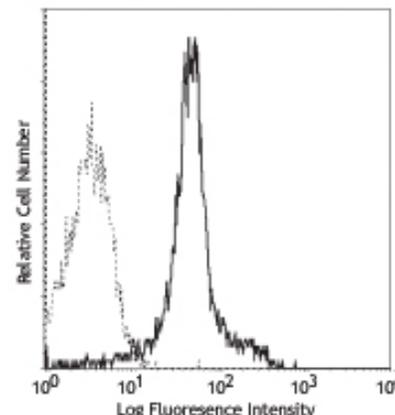
**Reactivity:** Rat

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



*Lou rat blood lymphocytes stained with MRα4-1 FITC*

## Applications:

**Applications:** FC - *Quality tested*

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 0.25 µg per 10<sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications include: immunoprecipitation<sup>1</sup>, *in vitro* activation, *in vitro* inhibition<sup>1</sup> of binding of VCAM-1 and mast cells to fibronectin, and *in vivo* inhibition of VLA-4 functions<sup>1</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 200106).

**Application References:** 1. Yasuda M, *et al.* 1995. *Int. Immunol.* 7:251. (IP, Block)

**Description:** CD49d is a 150 kD glycoprotein, also known as integrin α<sub>4</sub> or VLA-4 α chain. It is expressed as a heterodimer with either of two β chains, β<sub>1</sub> or β<sub>7</sub>. The α<sub>4</sub>β<sub>1</sub> integrin (also known as VLA-4, CD49d/CD29) is expressed on peripheral T and B lymphocytes, thymocytes, and monocytes, while the α<sub>4</sub>β<sub>7</sub> integrin (also known as LPAM-1) is expressed on peripheral lymphocytes. The α<sub>4</sub>β<sub>1</sub> and α<sub>4</sub>β<sub>7</sub> integrins mediate cell-cell and cell-matrix interactions by interacting with the ligands CD106 (VCAM-1), MAdCAM-1, and fibronectin. Soluble MRα4-1 antibody can partially inhibit *in vitro* binding of VCAM-1 and mast cells to fibronectin and inhibit mast cell degranulation. Immobilized MRα4-1 antibody can enhance mast cell degranulation *in vitro*.

**Antigen References:** 1. Yasuda, M., *et al.* 1995. *Int. Immunol.* 7:251.  
2. Springer, T.A. 1994. *Cell* 76:301.  
3. Issekutz, T. B., *et al.* 1991. *J. Immunol.* 147:4178.  
4. Issekutz, T. B., *et al.* 1991. *J. Immunol.* 147:109.  
5. Yang, H., *et al.* 1995. *Transplantation* 60:71.  
6. Palecanda, A., *et al.* 1997. *J. Immunol.* 158:2904.

### Related Products:

**Product**  
FITC anti-mouse/rat CD61  
PE anti-mouse/rat CD49e  
Biotin anti-mouse / rat CD29  
FITC Mouse IgG2a, κ Isotype Ctrl  
Cell Staining Buffer

**Clone**  
2C9.G2 (HMβ3-1)  
HMα5-1  
HMβ1-1  
MOPC-173

**Application**  
FC  
FC  
FC, IHC  
FC, ICFC  
FC, ICC, ICFC



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.



\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.