

TECHNICAL DATA SHEET

# PE Anti-Human CD49d (Integrin alpha 4) (9F10)

Catalog Number: 50-0499

## PRODUCT INFORMATION

**Contents:** PE Anti-Human CD49d (Integrin alpha 4) (9F10)

**Isotype:** Mouse IgG1, kappa

**Concentration:** 5µl (0.25µg)/test

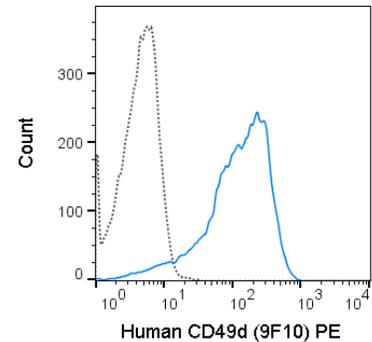
**Clone:** 9F10

**Reactivity:** Human

**Use By:** 12 months from date of receipt

**Storage Conditions:** 2-8°C protected from light

**Formulation:** 10 mM NaH<sub>2</sub>PO<sub>4</sub>, 150 mM NaCl, 0.09% NaN<sub>3</sub>, 0.1% gelatin, pH7.2



Human peripheral blood lymphocytes were stained with 5 µL (0.25 µg) PE Anti-Human CD49d (50-0499) (solid line) or 0.25 µg PE Mouse IgG1 isotype control (dashed line).

## DESCRIPTION

The 9F10 monoclonal antibody reacts with human CD49d, a 150kD integral membrane protein that is also known as integrin alpha4 (ITGA4). Together with integrin beta1 (CD29), CD49d forms the VLA-4 heterodimer that serves as a receptor for fibronectin and VCAM-1. VLA-4 is widely expressed on lymphocytes, monocytes, thymocytes, and NK cells. CD49d can also dimerize with integrin beta7 to form a receptor that binds the mucosal vascular addressin molecule, MAdCAM-1. CD49d is involved in cellular adhesion to other cells as well as extracellular matrix.

## PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

## APPLICATION NOTES

This antibody preparation has been pre-titrated and quality-tested for flow cytometry using an appropriate cell type. The antibody has been diluted for use at 5 µL per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 µL. The number of cells within a sample should be determined empirically, but typically ranges between 1x10<sup>5</sup> to 1x10<sup>8</sup> cells.

## REFERENCES

Hemler ME, Huang C, Takada Y, Schwarz L, Strominger JL, Clabby ML. 1987. *J Biol Chem.* 262(24):11478-11485. Hemler ME. 1990. *Annu Rev Immunol.* 8:365-400. Berlin C, Berg EL, Briskin MJ, et al. 1993. *Cell.* 74(1):185-195. Nevers T, Salvador AM, Velazquez F, Ngwenyama N, Carrillo-Salinas FJ, Aronovitz M, Blanton RM, Alcaide P. 2017. *J Exp Med.* Nov 6;214(11):3311-3329. Savino W, Pinto-Mariz F, Mouly V. 2018. *Methods Mol Biol.* 1687:219-227.

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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