

Anti-Human CD49d (ALC1/1)



PURE	49DPU	1 mg	1 mg/ml
FITC	49DF-100T	100 test	20 µL/test
PE	49DPE-100T	100 test	20 µL/test
PerCP	49DPP-100T	100 test	5 µL/test
APC	49DA-100T	100 test	5 µL/test



1. PRODUCT DESCRIPTION

Clone: ALC1/1;

Isotype: IgG1;

Tested application: flow cytometry;

Immunogen: The anti-CD49d monoclonal antibody derives from U-937 cell line;

Species reactivity: Human;

Storage instruction: store in the dark at 2-8 °C;

Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN₃);

Recommended usage: Immunostep's CD49d, clone ALC1/1 is a monoclonal antibody intended for the identification and enumeration of T and B lymphocytes and weakly on monocytes using flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10⁶ cells;

Presentation: liquid;

Source: Supernatant proceeding from an in vitro cell culture of a cell hybridoma;

Purification: Affinity chromatography;

Other names: Alpha-4 integrin chain; VLA-4 alpha chain, CD49 antigen-like family member D, Integrin alpha-IV, VLA-4 subunit alpha;

Gene ID: 3676;

Molecular weight: 150 kDa.

2. ANTIGEN DETAILS

Large description: Anti-CD49d (Anti-VLA-α-4) clone ALC1/1 recognizes the α-chain of very-late antigen (VLA)-4, a member of the integrin family of cell adhesion molecules. VLA-4, like other integrins, is a noncovalently associated heterodimeric glycoprotein composed of α and β subunits and is involved in cell-cell and cell-extracellular matrix interactions. The β-chain of the VLA-4 complex is the CD29 antigen.

The CD49d antigen binds to CS-1, an alternatively spliced domain of fibronectin. When functioning as a cell receptor, the CD49d antigen binds to the vascular cell-adhesion molecule-1 (VCAM-1). The interaction between the CD49d antigen and VCAM-1 is known to play an important role in stabilizing the adhesion of lymphocytes to endothelial cells and in mediating B-lymphocyte precursor/bone marrow stromal cell adhesion. The CD49d antigen, when associated with the β integrin, forms a lymphocyte homing receptor for Peyer's patch, binding to the mucosal vascular addressin MAdCAM-1. The CD49d antigen is also involved in CD3-dependent CD4+ T-lymphocyte activation via its interaction with fibronectin.^[1-6]

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties.

Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. ADDITIONAL INFORMATION

For research use only. Not for diagnostic use.

Not for resale. Immunostep will not be responsible of violations that may occur with the use of this product. Any use of this product other than the specified in this document is strictly prohibited.

Unless otherwise indicated by Immunostep by written authorization, this product is intended for research only and is not to be used for any other purpose, including without limitation, for human or animal diagnostic, therapeutic or commercial purposes.

Please, refer to www.immunostep.com technical support for more information.

5. REFERENCES

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- Nojima Y, Humphries MJ, Mould AP, Komoriya A, Yamada KM, Schlossman SF, et al. VLA-4 mediates CD3-dependent CD4+ T cell activation via the CS1 alternatively spliced domain of fibronectin. J Exp Med 1990 Oct 01;172(4):1185-92.
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- Dittel BN, McCarthy JB, Wayner EA, LeBien TW. Regulation of human B-cell precursor adhesion to bone marrow stromal cells by cytokines that exert opposing effects on the expression of vascular cell adhesion molecule-1 (VCAM-1). Blood 1993 May 01;81(9):2272-82.
- Modderman PW. New clusters: CD29/CDw49, CD47 CD51, CD55, and CD61. In: Knapp W, Dörken B, Gilts WR, et al, eds. Leucocyte Typing IV: White Cell Differentiation Antigens. New York, NY: Oxford University Press; 1989:1017-1019.

6. EXPLANATION OF SYMBOLS



Form



Catalog reference



Contains sufficient for <n> test



Quantity per test



Regulatory Status



Research Use Only



Manufacturer

7. MANUFACTURED BY:



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