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Technical Data Sheet

Anti-Human CD49d FITC

Catalogue Number : 11511-50

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

Product Information

Clone: 9F10
Format/Conjugate: FITC
Concentration: 0.5 mg/mL
Reactivity: Human
Laser: Blue (488nm)
Peak Emission: 520nm
Peak Excitation: 494nm
Filter: 530/30
Brightness (1=dim,5=brightest): 3
Isotype: Mouse IgG1, 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 9F10 monoclonal antibody specifically reacts with human CD49d, the 150 kDA alpha 4 integrin chain. The molecule forms the heterodimer called VLA-4 with integrin beta 1 and another heterodimer with integrin beta 7 that binds fibronectin, VCAM-1, and MadCAM-1. CD49d is expressed on monocytes, lymphocytes, thymocytes, NK cells, B cells, and T cells. It is involved in hematopoietic stem cell differentiation, cell migration, and cell activation. Its absence on Foxp3+ cells make it a useful marker to isolate Treg cell populations.

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. The antibody can be used at less than or equal to 5 µL per test. A test is the amount of antibody required to stain a cell sample in the final volume of 100 µL.

References

1.Schlossman, S. F. (1995).;Leucocyte typing V: White cell differentiation antigens: Proceedings of the Fifth International Workshop and Conference, Held in Boston, USA 3-7 November, 1993. Oxford University Press.

2. Kleinewietfeld, M., Starke, M., Di Mitri, D., Borsellino, G., Battistini, L., Rötzschke, O., ; Falk, K. (2009). CD49d provides access to “untouched” human Foxp3+ Treg free of contaminating effector cells.;Blood,;113(4), 827-836.

3. Hemler, M. E. (1990). VLA proteins in the integrin family: structures, functions, and their role on leukocytes.;Annual review of immunology,;8(1), 365-400.

email: info@bio-gems.com | domain: www.bio-gems.com | phone: 818.338.3312 | fax: 818.338.3316