Monoclonal Antibody to CD49d / Integrin alpha 4  
Phycoerythrin (PE) conjugated (100 tests)

Clone: 9F10  
Isotype: Mouse IgG1  
Specificity: The mouse monoclonal antibody 9F10 recognizes CD49d (alpha 4 integrin), a 145-180 kDa type I transmembrane glycoprotein expressed on B and T cells, monocytes, eosinophils, basophils, NK cells, and dendritic cells, but not platelets. HLDA V; WS Code S215

Regulatory Status: RUO  
Species Reactivity: Human, Non-Human Primates, Bovine, Canine (Dog), Equine (Horse), Feline (Cat), Sheep

Preparation: The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

Expiration: See vial label  
Lot Number: See vial label

Background: CD49d / integrin alpha 4, unlike other alpha integrins, neither contains an I-domain, nor undergoes disulfide-linked cleavage. It associates with beta 7 chain to form alpha 4 / beta 7 integrin, and with beta 1 chain (CD29) to form VLA-4 integrin. These complexes are important for lymphocyte migration from circulation into tissue (binding VCAM-1) and homing of T cell subsets to Peyer's patches (binding MadCAM-1), but VLA-4 is also target for invasive bacteria which contain invasin. CD49d is essential for differentiation and migration of hematopoietic stem cells by their adhesion to bone marrow stromal cells, and provides a costimulatory signal to TCR-CD3 complex by inducing phosphorylation of some focal adhesion proteins.
References:


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