Monoclonal Antibody to CD49d / Integrin alpha 4
Purified Antibody (0.1 mg)

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
Application: Flow Cytometry
Immunohistochemistry (frozen sections)
Functional Application
in vitro T cell costimulation
Purity: > 95% (by SDS-PAGE)
Purification: Purified by protein-A affinity chromatography
Concentration: 1 mg/ml
Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
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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