

### 30-2561: Anti-Human CD49d FITC (Clone : 9F10)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	9F10
<b>Application :</b>	FACS
<b>Reactivity :</b>	Human
<b>Conjugate :</b>	FITC
<b>Gene :</b>	ITGA4
<b>Gene ID :</b>	3676
<b>Alternative Name :</b>	ITGA4, VLA-4 alpha, integrin subunit alpha 4
<b>Isotype :</b>	Mouse IgG1 kappa

#### Description

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 invasins. 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. Specificity : The mouse monoclonal antibody 9F10 recognizes an extracellular epitope of 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.

#### Product Info

<b>Amount :</b>	100 tests
<b>Purification :</b>	The purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
<b>Content :</b>	Formulation : Stabilizing phosphate buffered saline (PBS) solution containing 15 mM sodium azide
<b>Storage condition :</b>	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light.

#### Application Note

Flow cytometry: The reagent is designed for analysis of human blood cells using 4  $\mu$ l reagent / 100  $\mu$ l of whole blood or  $10^6$  cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.

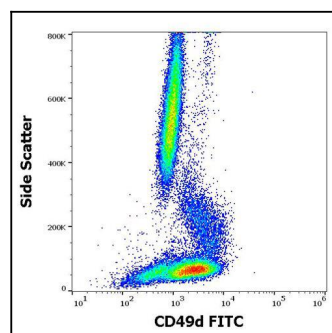


Figure 1 : Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD49d (9F10) FITC antibody (4  $\mu$ l reagent / 100  $\mu$ l of peripheral whole blood).

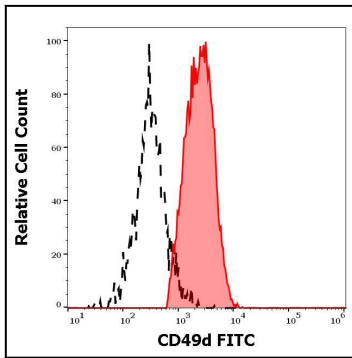


Figure 2 : Separation of human CD49d positive lymphocytes (red-filled) from human blood debris (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD49d (9F10) FITC antibody (4  $\mu$ l reagent / 100  $\mu$ l of peripheral whole blood).