

**PE/Cy7 Anti-non-human primates/ human  
CD49b Antibody \*AK7\***Catalog number: 10491100, 10491101, 10491102  
Unit size: 25 tests, 100 tests, 500 tests**Product Details**

|                    |                                                                             |
|--------------------|-----------------------------------------------------------------------------|
| Storage Conditions | 2-8°C with minimized light exposure. Do not freeze.                         |
| Expiration Date    | 12 months upon receiving                                                    |
| Concentration      | 0.1 mg/mL                                                                   |
| Formulation        | Phosphate-buffered saline (PBS, pH 7.2), 0.09% sodium azide, 0.2% (w/v) BSA |

**Antibody Properties**

|                    |                                                                                                                            |
|--------------------|----------------------------------------------------------------------------------------------------------------------------|
| Species Reactivity | Non-human primates, human                                                                                                  |
| Class              | Primary                                                                                                                    |
| Clonality          | Monoclonal                                                                                                                 |
| Host               | Mouse                                                                                                                      |
| Isotype            | Mouse IgG1                                                                                                                 |
| Immunogen          | CD49b (Integrin alpha-2, VLA-2 subunit alpha, ITGA2, $\alpha 2$ integrin, VLA-2 $\alpha$ chain, Integrin $\alpha 2$ chain) |
| Clone              | AK7                                                                                                                        |
| Conjugate          | PE/Cy7                                                                                                                     |

**Biological Properties**

|             |                                                                                                       |
|-------------|-------------------------------------------------------------------------------------------------------|
| Preparation | Antibody purified by affinity chromatography and then conjugated with PE/Cy7 under optimal conditions |
| Application | Flow Cytometry (FACS)                                                                                 |

**Spectral Properties**

|                       |        |
|-----------------------|--------|
| Conjugate             | PE/Cy7 |
| Excitation Wavelength | 566 nm |
| Emission Wavelength   | 778 nm |

**Applications**

The AK7 monoclonal antibody reacts with non-human primates/ human CD49b, a 170 kD member of the Integrin alpha chain family commonly located on the surface of activated T cells, B cells and monocytes. In some organisms, CD49b plays a role in the upregulation of alkaline phosphatase activity, is involved in the positive regulation of translation and is a promoter of epithelial cell migration. Additionally, it plays a role in essential cellular pathways, for example, the integrin-mediated signaling pathway and collagen-activated signaling pathway. CD49b has been associated with critical biological processes such as cell adhesion, specifically cell adhesion mediated by integrin, and is associated with a variety of biologically interesting macromolecules/ligands, for example, laminin, collagen and MMP-1. CD49b is a fairly uncommon antibody

target, with a little more than 3000 publications in the last decade. Even still, CD49b is commonly used in flow cytometry applications as a phenotypic marker for differentiation of cell types, specifically in the study of immunology. This antibody was purified through affinity chromatography and conjugated to PE/Cy7 (ex/em = 566/778 nm). It is compatible with the 561 nm laser and 783/56 nm bandpass filter (for example, as in the BD FACSMelody™).