

Monoclonal Antibody to CD49d / ITGA4 - PE

Alternate names:	CD49 antigen-like family member D, Integrin alpha-4, Integrin alpha-IV, VLA-4, VLA4
Catalog No.:	SM037RT
Quantity:	25 Tests
Background:	<p>Integrin α4 (also called CD49d) is a ~150 kDa protein that possesses a large extracellular domain involved in ligand binding, a single transmembrane domain, and an intracellular regulatory domain possessing multiple sites for phosphorylation. Integrin α4 forms heterodimers with integrins β1 and β7. Integrin α4 is expressed on leukocytes and leukocyte precursors, neural crest cells, and developing skeletal muscles and is essential for embryogenesis, hematopoiesis, and immune responses. The presence of integrin α4 promotes cell migration and inhibits cell spreading and contractility. Integrin α4 function has been implicated in the pathogenesis of multiple diseases including asthma, rheumatoid arthritis, Crohn's disease, ulcerative colitis, hepatitis C, and multiple sclerosis, and therefore, modulation of integrin α4 function has become an important target for drug discovery. Phosphorylation of the serine 988 residue on the integrin α4 cytoplasmic tail inhibits its interaction with the focal adhesion complex-associated protein paxillin, and modulates its effects on cell motility and spreading.</p>
Uniprot ID:	P13612
NCBI:	NP_000876.3
GeneID:	3676
Host / Isotype:	Rat / IgG2b
Clone:	PS/2
Format:	<p>State: Lyophilized purified IgG fraction. Purification: Affinity Chromatography on Protein G. Buffer System: PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. Label: PE – R. Phycoerythrin (RPE) Reconstitution: Restore with 0.25 ml distilled water.</p>
Applications:	<p>Flow Cytometry: Use 10 μl of Neat-1/1 diluted antibody to label 10e6 cells in 100 μl. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors.</p> <p>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

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- Specificity:** This antibody recognises alpha 4 integrin (CD49d).
Clone PS/2 has also been reported to block the binding of CD49d to its ligands. We recommend the use of SM037LE for this purpose.
Species: Human and Mouse.
Other species not tested.
- Storage:** Store the antibody undiluted at 2-8°C.
DO NOT FREEZE!
This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.
- General References:** 1. Miyake, K. et al. (1991) Evidence for a role of the integrin VLA-4 in lympho-hemopoiesis. J. Exp. Med. 173: 599-607.
2. Miyake, K. et al. (1991) A VCAM-like adhesion molecule on murine bone marrow stromal cells mediates binding of lymphocyte precursors in culture. J. Cell Biol. 114: 557-565.
3. Andrew, D.P. et al. (1994) Distinct but overlapping epitopes are involved in alpha4 beta7-mediated adhesion to vascular cell adhesion molecule-1, mucosal addressin-1, fibronectin, and lymphocyte aggregation. J. Immunol. 153:3847-3861.

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