

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.:	SM037R
Quantity:	100 Tests
Background:	<p>Integrin $\alpha 4$ (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 $\alpha 4$ forms heterodimers with integrins $\beta 1$ and $\beta 7$. Integrin $\alpha 4$ 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 $\alpha 4$ promotes cell migration and inhibits cell spreading and contractility. Integrin $\alpha 4$ 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 $\alpha 4$ function has become an important target for drug discovery. Phosphorylation of the serine 988 residue on the integrin $\alpha 4$ 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 1 ml distilled water</p>
Applications:	<p>Flow Cytometry: Use 10μl 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.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

- 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.

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.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com