

## Product datasheet for **SM037P**

### Integrin alpha 4 (ITGA4) Rat Monoclonal Antibody [Clone ID: PS/2]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	PS/2
Applications:	FC, IHC, IP
Recommended Dilution:	<b>Flow Cytometry:</b> Use 10 µl of 1/50-1/100 diluted antibody to label 10e6 cells in 100 µl. <b>Immunohistochemistry on Frozen Sections.</b> <b>Immunoprecipitation.</b>
Reactivity:	Human, Mouse
Host:	Rat
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	P815 DBA/2 murine mastocytoma cells.
Specificity:	This antibody recognizes 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.
Formulation:	PBS, pH 7.4 State: Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	integrin subunit alpha 4
Database Link:	<a href="#">Entrez Gene 3676 Human P13612</a>



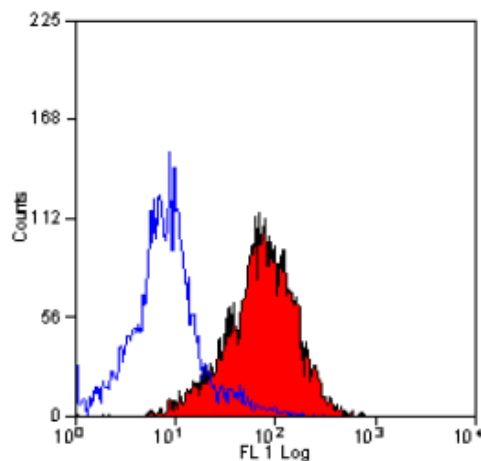
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**Background:**

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.

**Synonyms:**

Integrin alpha-4, Integrin alpha-IV, VLA-4, VLA4

**Product images:**

Staining of mouse peripheral blood lymphocytes with Rat Anti Mouse CD49d.