

Product datasheet for **SM037LE**

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

Product data:

Product Type:	Primary Antibodies
Clone Name:	PS/2
Applications:	FC, FN, IHC, IP
Recommended Dilution:	<u>Flow Cytometry</u> : Use 10µl of 1/50-1/100 diluted antibody to label 10e6 cells in 100 µl. <u>Immunohistochemistry on frozen sections</u> . <u>Immunoprecipitation</u> . <u>Functional assays</u> .
Reactivity:	Human, Mouse
Host:	Rat
Isotype:	IgG2b
Clonality:	Monoclonal
Specificity:	This antibody recognises alpha 4 integrin (CD49d). Clone PS/2 has also been reported to block the binding of CD49d to its ligands.
Formulation:	PBS, pH 7.4 State: Low Endotoxin State: Liquid purified IgG fraction.
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	integrin subunit alpha 4
Database Link:	<u>Entrez Gene 3676 Human P13612</u>



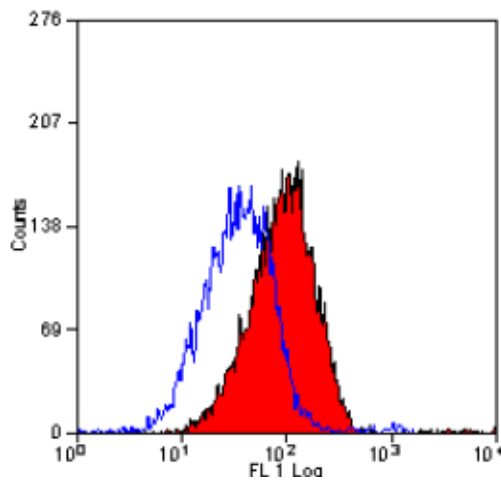
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Background:

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: LOW ENDOTOXIN