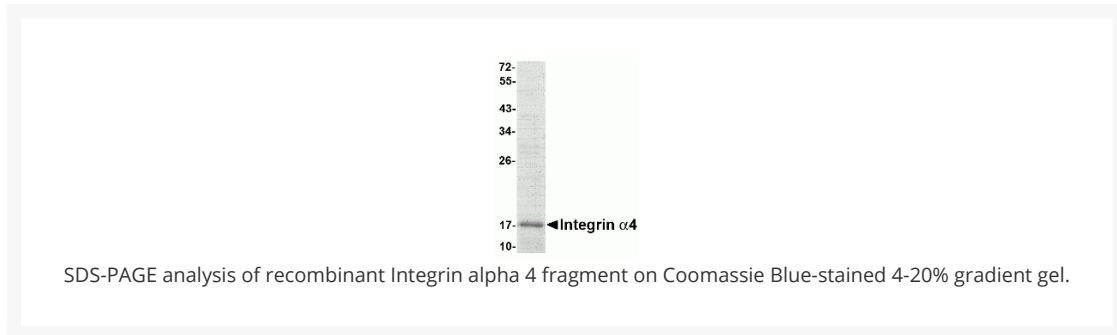




Integrin alpha 4 Recombinant Protein

Cat. No.: 95-110



Ψ Specifications

SPECIES:	Human
SOURCE SPECIES:	E. coli
SEQUENCE:	aa 131 - 275
FUSION TAG:	Fusion Partner: N-terminal His-tag
TESTED APPLICATIONS:	ELISA, WB
APPLICATIONS:	This recombinant protein can be used for WB and ELISA. For research use only.
PREDICTED MOLECULAR WEIGHT:	17 kDa (Calculated)

Ψ Properties

PURITY:	~95%
PHYSICAL STATE:	Liquid
BUFFER:	50mM Tris pH7.5, 150mM NaCl, 5 mM MgCl2
STORAGE CONDITIONS:	Store in working aliquots at -70 °C. Avoid freeze/thaw cycles. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

OFFICIAL SYMBOL:	ITGA4
ALTERNATE NAMES:	Integrin alpha 4 Antibody: IA4, CD49D, Integrin alpha-4, CD49 antigen-like family member D
ACCESSION NO.:	NP_000876
PROTEIN GI NO.:	67191027
GENE ID:	3676

Background and References

BACKGROUND:	<p>The integrin alpha 4 (also known as CD49d and ITGA4) belongs to the integrin alpha chain family of proteins. Integrins are heterodimeric integral membrane proteins composed of an alpha and beta chains (reviewed in 1). Alpha 4 (α4) chain associates with either beta 1 (β1) or beta 7 (β7) chain. It has been demonstrated that the putative ligand-binding sites of both integrin α4β1 and α4β7 is located on the α4 chain. These ligands included Madcam, VCAM, and fibronectin (2-4). Madcam is known as the principal ligand for integrin α4β7. Recently it was also demonstrated that HIV-1 envelope can mimic Madcam by binding to and signaling through integrin α4β7, the gut mucosal homing receptor for peripheral T cells (5). This recombinant protein fragment includes the ligand and monoclonal antibody binding domains; this binding has been tested and verified in ELISA assays. This recombinant protein is recognized by PSI antibodies Integrin 4β (IN1) (PSI 4827) and Integrin 4β (IN2) (PSI 4837), but not Integrin 4β (CT) (PSI 4783).</p>
REFERENCES:	<p>1) Wegener KL and Campbell ID. Transmembrane and cytoplasmic domains in integrin activation and protein-protein interactions. <i>Mol. Membr. Biol.</i> 2008; 25:376-87.</p> <p>2) Kamata T, Puzon W, and Takada Y. Identification of putative ligand-binding sites of the integrin alpha 4 beta 1 (VLA-4, CD49d/CD29). <i>Biochem J.</i> 1995; 305:945-51.</p> <p>3) Berlin C, Berg EL, Briskin MJ, et al. Alpha 4 beta 7 integrin mediates lymphocyte binding to the mucosal vascular addressin MAdCAM-1. <i>Cell</i> 1993; 74:185-95.</p> <p>4) Pulido R, Elices MJ, Campanero MR, et al. Functional evidence for three distinct and independently inhibitable adhesion activities mediated by the human integrin VLA-4. Correlation with distinct alpha 4 epitopes. <i>J. Biol. Chem.</i> 1991; 266:10241-5.</p>

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