

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects Integrin $\alpha$ 1/CD49a in direct ELISAs.
<b>Source</b>	Monoclonal Rabbit IgG Clone # 1090A
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO derived recombinant human Integrin $\alpha$ 1 $\beta$ 1 Met1-Pro1141 (Integrin $\alpha$ 1) & Gln21-Asp728 (Integrin $\beta$ 1) Accession # P56199
<b>Conjugate</b>	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	0.25-1 $\mu$ g/10 <sup>6</sup> cells	HeLa human cervical epithelial carcinoma cell line

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> ● 12 months from date of receipt, 2 to 8 °C as supplied.

#### BACKGROUND

Integrin  $\alpha$ 1 (also VLA-1, CD49a and Laminin and Collagen Receptor) is a 190-210 kDa member of the integrin alpha chain family of molecules. It is found on smooth muscle cells, osteoblasts, adipocytes and intestinal epithelium. Integrin  $\alpha$ 1 forms a noncovalent heterodimer with Integrin  $\beta$ 1, and serves as a divalent-cation dependent receptor for collagen types I, IV, VI, XIII and XVI. It also binds the diarrhea-associated NSP4 enterotoxin of rotavirus. Mature human Integrin  $\alpha$ 1 is a 1151 amino acid (aa) type I transmembrane glycoprotein that contains a 1113 aa extracellular domain (ECD) and a 15 aa cytoplasmic tail. The ECD contains one vWFA/I-domain (aa 147-360) that binds collagen, plus multiple divalent cation binding sites. Potential splice variants exist that show a two and four aa substitution for aa 765-1179. Over aa 29-1141 (the ECD), human Integrin  $\alpha$ 1 shares 88% aa identity with mouse Integrin  $\alpha$ 1.

#### PRODUCT SPECIFIC NOTICES

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