

## DESCRIPTION

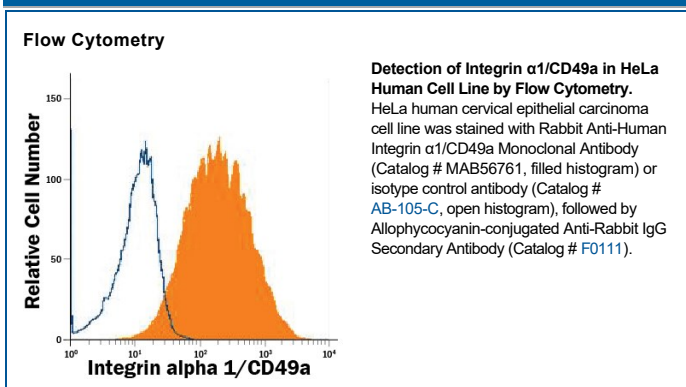
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects Integrin $\alpha$ 1/CD49a in direct ELISAs.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 1090A
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO derived recombinant human Integrin $\alpha$ 1 $\beta$ 1 Met1-Pro1141 (Integrin $\alpha$ 1) & Gln21-Asp728 (Integrin $\beta$ 1) Accession # P56199
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS.

## 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25 $\mu$ g/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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.