

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Integrin $\beta$ 1/CD29. Reacts with calcium-dependent epitopes on the human Integrin $\beta$ 1 subunit. This antibody activates Integrin $\beta$ 1-dependent binding to extracellular matrix substrates. The use of binding buffer containing 1 mM Ca <sup>2+</sup> is recommended.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # P4G11
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	U937 human histiocytic lymphoma cell line
<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.

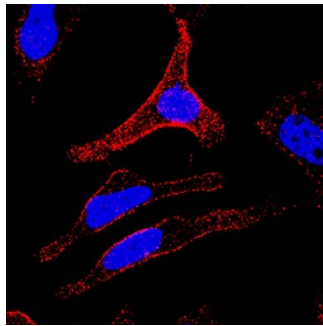
## APPLICATIONS

**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.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	0.25 $\mu$ g/10 <sup>6</sup> cells	Human peripheral blood mononuclear cells
<b>Immunoprecipitation</b>	25 $\mu$ g/mL	Conditioned cell culture medium spiked with Recombinant Human Integrin $\beta$ 1/CD29, <a href="#">see our available Western blot detection antibodies</a>
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Adhesion Activation</b>	This antibody was shown to activate Integrin $\beta$ 1-mediated cell adhesion. Wayner, E.A. <i>et al.</i> (1993) <i>J. Cell Biol.</i> <b>121</b> :1141. This application was not tested by R&D Systems.	
<b>Immunocytochemistry</b>	Qin, L. <i>et al.</i> (2003) <i>Biol. Reprod.</i> <b>69</b> :563 and Kemp, B. <i>et al.</i> (2002) <i>Histochem. Cell. Biol.</i> <b>117</b> :401.	

## DATA

### Immunocytochemistry



**Integrin  $\beta$ 1/CD29 in HeLa Human Cell Line.** Integrin  $\beta$ 1/CD29 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human Integrin  $\beta$ 1/CD29 Monoclonal Antibody (Catalog # MAB17782) at 25  $\mu$ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and cell surfaces. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## 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>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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

The Integrin  $\beta$ 1 subunit, also known as CD29, associates with multiple distinct Integrin  $\alpha$  subunits. The Integrin  $\beta$ 1 subunit has a broad tissue distribution with the exception of erythrocytes.

### References:

1. Wayner, E.A. *et al.* (1993) *J. Cell Biol.* **121**:1141.