

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Integrin β 1/CD29. Reacts with calcium-dependent epitopes on the human Integrin β 1 subunit. This antibody activates Integrin β 1-dependent binding to extracellular matrix substrates. The use of binding buffer containing 1 mM Ca ²⁺ is recommended.
Source	Monoclonal Mouse IgG ₁ Clone # P4G11
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	U937 human histiocytic lymphoma cell line
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

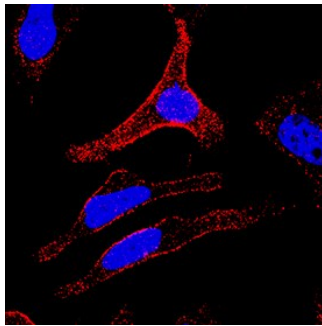
APPLICATIONS

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

DATA

Immunocytochemistry



Integrin β 1/CD29 in HeLa Human Cell Line. Integrin β 1/CD29 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human Integrin β 1/CD29 Monoclonal Antibody (Catalog # MAB17782) at 25 μ 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

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The Integrin β 1 subunit, also known as CD29, associates with multiple distinct Integrin α subunits. The Integrin β 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.