

DESCRIPTION

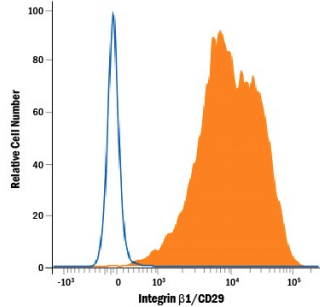
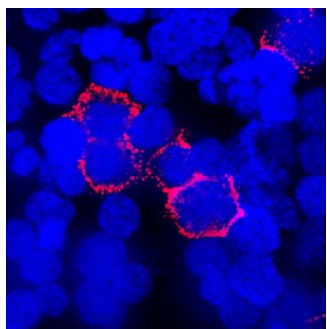
Species Reactivity	Human
Specificity	Detects human Integrin $\beta 1$ /CD29.
Source	Monoclonal Mouse IgG ₁ Clone # P5D2
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human skin keratinocytes
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
Formulation	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 either lyophilized or 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	See Below
Immunocytochemistry	8-25 μ g/mL	See Below
CytoTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Blockade of Receptor-ligand Interaction	Mukhopadhyay, N.K. <i>et al.</i> (2004) <i>Ann. Thorac. Surg.</i> 78 :450. Blaschke, F. <i>et al.</i> (2002) <i>Biochem. Biophys. Res. Commun.</i> 296 :890.	
Immunoprecipitation	Lin, Q. <i>et al.</i> (2004) <i>Biochim. Biophys. Acta</i> 1689 :175. Joneckis, C.C. <i>et al.</i> (1993) <i>Blood</i> 82 :3548.	

DATA

Flow Cytometry	Immunocytochemistry
 <p>Detection of Integrin $\beta 1$/CD29 in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) were stained with Mouse Anti-Human Integrin $\beta 1$/CD29 Monoclonal Antibody (Catalog # MAB17781, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B).</p>	 <p>Integrin $\beta 1$/CD29 in human PBMCs. Integrin $\beta 1$/CD29 was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Mouse Anti-Human Integrin $\beta 1$/CD29 Monoclonal Antibody (Catalog # MAB17781) at 25 μg/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 plasma membrane. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>

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 $\beta 1$ subunit, also known as CD29, associates with at least ten different Integrin α subunits. It regulates not only its multiple ligands, but activates a signaling cascade in its expressing cells. CD29 is proposed to play a role in cell adhesion, apoptosis, and differentiation (1,2). Over amino acids (aa) 21-728, human and mouse share 92% aa sequence identity.

References:

1. Barkan, D. and A.F. Chambers (2011) *Clin. Cancer Res.* **17**:7219.
2. Humphries, M.J. (2000) *Biochem. Soc. Trans.* **28**:311.