

DESCRIPTION

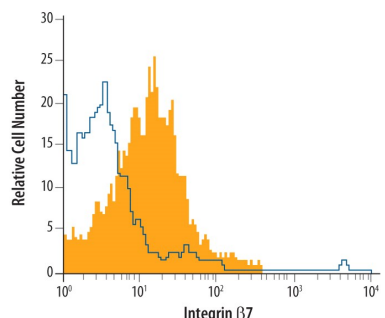
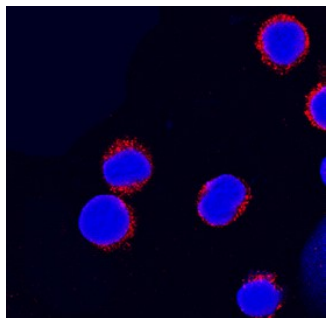
Species Reactivity	Human
Specificity	Detects human Integrin $\beta 7$ in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human Integrin $\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$, $\beta 5$, $\beta 6$, $\beta 8$, recombinant mouse Integrin $\beta 4$, or $\beta 7$ is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 473207
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Integrin $\beta 7$ long isoform Glu20-His723 Accession # P26010
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
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p> 	<p>Detection of Integrin $\beta 7$ in Human Lymphocytes by Flow Cytometry. Human peripheral blood lymphocytes were stained with Mouse Anti-Human Integrin $\beta 7$ Monoclonal Antibody (Catalog # MAB4669, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG F(ab')₂ Secondary Antibody (Catalog # F0102B).</p>	<p>Immunocytochemistry</p>  <p>Integrin $\beta 7$ in Human PBMCs. Integrin $\beta 7$ was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Mouse Anti-Human Integrin $\beta 7$ Monoclonal Antibody (Catalog # MAB4669) at 15 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 cell surfaces and cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.</p>
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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

Human Integrin $\beta 7$ (also Integrin βP and M290 IEL Ag) is a 120 kDa member of the Integrin beta chain family of molecules. It is a type I transmembrane glycoprotein that contains a 704 amino acid (aa) extracellular domain (ECD) (aa 20-723) and a 52 aa cytoplasmic tail. The ECD contains one von Willebrand factor A domain (aa 150-389) and four cysteine-rich EGF-like repeats. One splice variant exists that shows a deletion of aa 501-648. Integrin $\beta 7$ forms a nondisulfide linked heterodimer with $\alpha 4$ and αE integrins. $\alpha 4\beta 7$ binds fibronectin, VCAM-1 and MADCAM1, while $\alpha E\beta 7$ binds E-cadherin. The ECD of human $\beta 7$ is 87% aa identical to the ECD of mouse $\beta 7$.