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PRODUCT DATASHEET

Anti-Integrin β1 (Extracellular region) Antibody

phosphosolutions ANTIBODIES THAT WORK

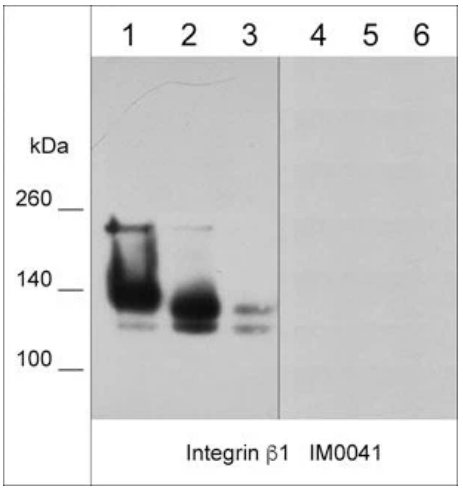
Product Details

Available Variants	100 µL (SKU:IM0041)
Conjugate	Unconjugated
Isotype	IgG1
Clone	M004
Gene Name	ITGB1
Host Species	Mouse
Format	Protein G Purified
Physical State	Liquid
Buffer	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Applications	ELISA, ICC, IP, WB
Dilution Ranges	WB: 1:1000 ICC: 1:100 IP: 1:100
Species Reactivity	Human
Immunogen	Clone M004 was generated from a proprietary antigen related to the extracellular region of human integrin β1 in complex with integrin α expressed in the A431 epidermoid carcinoma cell line.
Specificity	Clone M004 detects 120-150 kDa* bands corresponding to Integrin β1 on SDS-PAGE immunoblots of native human A431, A549, MDA-MB-231, and LNCaP cell lysates. The antibody also detects native recombinant human Integrin α1/β1, α2/β1, and α3/β1 complexes, but does not detect recombinant human Integrin α6/β4 or αV/β3 complexes. The antibody does not detect the denatured form of Integrin β1. Clone M004 can be used in western blot, immunocytochemical labeling, ELISA, and immunoprecipitation, as well for detecting live, unfixed cells.

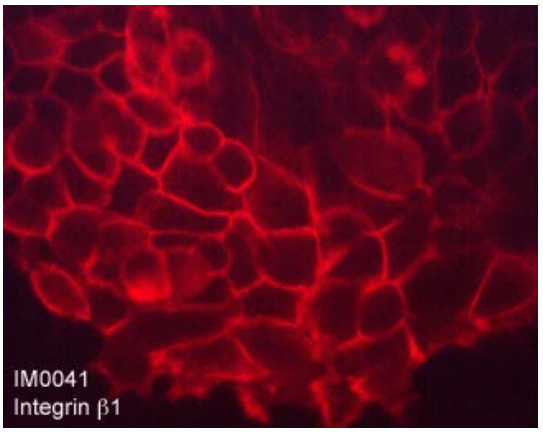
Molecular Weight	120-150
Quality Control	Western blots performed on each lot.
Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
UniProt ID	P05556 UniProt Summary: Integrins alpha-1/beta-1, alpha-2/beta-1, alpha-10/beta-1 and alpha-11/beta-1 are receptors for collagen. Integrins alpha-1/beta-1 and alpha-2/beta-2 recognize the proline-hydroxylated sequence G-F-P-G-E-R in collagen. Integrins alpha-2/beta-1, alpha-3/beta-1, alpha-4/beta-1, alpha-5/beta-1, alpha-8/beta-1, alpha-10/beta-1, alpha-11/beta-1 and alpha-V/beta-1 are receptors for fibronectin. Alpha-4/beta-1 recognizes one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. Integrin alpha-5/beta-1 is a receptor for fibrinogen. Integrin alpha-1/beta-1, alpha-2/beta-1, alpha-6/beta-1 and alpha-7/beta-1 are receptors for lamimin. Integrin alpha-6/beta-1 (ITGA6:ITGB1) is present in oocytes and is involved in sperm-egg fusion. Integrin alpha-4/beta-1 is a receptor for VCAM1. It recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-9/beta-1 is a receptor for VCAM1, cytotactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytotactin. Integrin alpha-3/beta-1 is a receptor for epiligrin, thrombospondin and CSPG4. Alpha-3/beta-1 may mediate with LGALS3 the stimulation by CSPG4 of endothelial cells migration. Integrin alpha-V/beta-1 is a receptor for vitronectin. Beta-1 integrins recognize the sequence R-G-D in a wide array of ligands. When associated with alpha-7 integrin, regulates cell adhesion and laminin matrix deposition. Involved in promoting endothelial cell motility and angiogenesis. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process and the formation of mineralized bone nodules. May be involved in up-regulation of the activity of kinases such as PKC via binding to KRT1. Together with KRT1 and RACK1, serves as a platform for SRC activation or inactivation. Plays a mechanistic adhesive role during telophase, required for the successful completion of cytokinesis. Integrin alpha-3/beta-1 provides a docking site for FAP (seprase) at invadopodia plasma membranes in a collagen-dependent manner and hence may participate in the adhesion, formation of invadopodia and matrix degradation processes, promoting cell invasion. ITGA4:ITGB1 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1-dependent fractalkine signaling. ITGA4:ITGB1 and ITGA5:ITGB1 bind to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1. ITGA5:ITGB1 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1. ITGA5:ITGB1 acts as a receptor for fibronectin FN1 and mediates R-G-D-dependent cell adhesion to FN1. ITGA5:ITGB1 is a receptor for IL1B and binding is essential for IL1B signaling. ITGA5:ITGB3 is a receptor for soluble CD40LG and is required for CD40/CD40LG signaling. Plays an important role in myoblast differentiation and fusion during skeletal myogenesis. ITGA9:ITGB1 may play a crucial role in

	SVEP1/polydom-mediated myoblast cell adhesion. Integrins ITGA9:ITGB1 and ITGA4:ITGB1 repress PRKCA-mediated L-type voltage-gated channel Ca(2+) influx and ROCK-mediated calcium sensitivity in vascular smooth muscle cells via their interaction with SVEP1, thereby inhibit vasocontraction.
Country of Origin	United States
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
NCBI Gene ID	3688

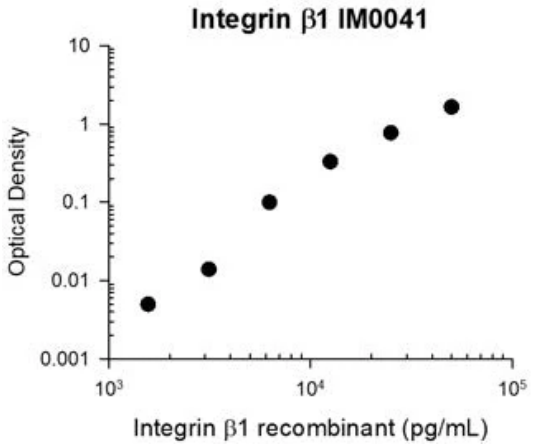
Product Images



Western blot analysis of native (lanes 1-3) and denatured (lanes 4-6) cell lysates from human A431 (lane 1 & 4), A549 (lane 2 & 5), and LNCaP (lane 3 & 6). The blots were probed with mouse monoclonal anti-Integrin β1 (IM0041) at 1:1000 dilution.



Immunocytochemical labeling of Integrin β1 in paraformaldehyde fixed human A431 cells. The cells were labeled with mouse monoclonal anti-Integrin β1 (clone M004). The antibody was detected using goat anti-mouse DyLight® 594.



Representative Standard Curve using mouse monoclonal anti-integrin β1 (IM0041) for ELISA capture of human recombinant integrin β1 extracellular region. Capture was detected by mouse monoclonal anti-integrin β1 (IM0411) followed by appropriate secondary antibody conjugated to HRP.