

Integrin $\beta 1$ (Extracellular region)

Mouse Monoclonal IgG1

Cat. # IM0321

Size 100 μ l

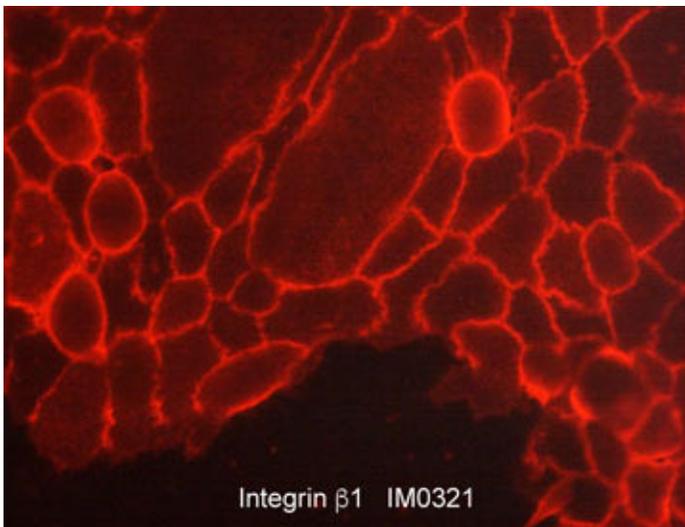
Background

Integrins are cell adhesion molecules that can mediate bidirectional transfer of signals across the plasma membrane. The cytoplasmic domains of integrin family members interact with components of the signal transduction apparatus within cells. Integrin receptors contain noncovalently associated α and β subunits that consist of a large extracellular region (the ligand-binding domain), a short transmembrane region, and a cytoplasmic domain of varying length. In mammals, at least 17 α subunits and 8 β subunits have been identified and these proteins can heterodimerize to form at least 22 different receptors. The $\beta 1$ subfamily includes 12 distinct integrin proteins that bind to different extracellular matrix molecules. Integrin $\beta 1$ has been implicated in various activities including embryonic development, blood vessel, skin, bone, and muscle formation, as well as tumor metastasis and angiogenesis.

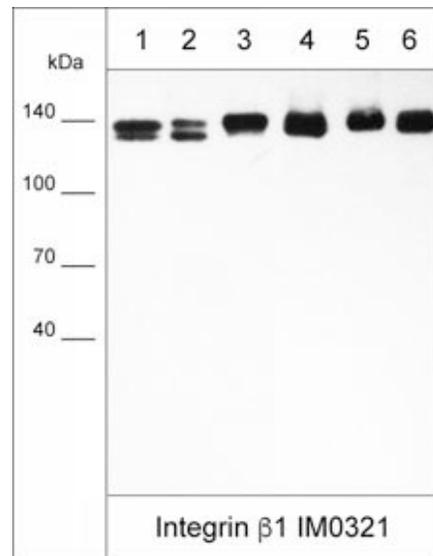
Background References

Wang, L. et al. (2012) *J Cell Physiol.* 227(2):474.

Iwamoto, D. & Calderwood, D. (2015) *Cur Opin Cel Bio.* 36:41.



Immunocytochemical labeling of Integrin $\beta 1$ in paraformaldehyde fixed human A431 cells. The cells were labeled with mouse monoclonal anti-Integrin $\beta 1$ (IM0321). The antibody was detected using goat anti-mouse Ig DyLight[®] 594.



Western blot analysis of integrin $\beta 1$ expression in native human cells and tissues: A549 (lane 1) LNCaP (lane 2), MDA-MB-231 (lane 3) breast (lane 4), lung (lane 5), and skin (lane 6). The blot was probed with mouse monoclonal anti-Integrin $\beta 1$ (IM0321) at 1:1000 dilution.

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Immunogen

Clone M032 was generated from a proprietary antigen related to the extracellular region of human integrin β 1 expressed in A431 epidermoid carcinoma cell line.

Buffer and Storage

Mouse monoclonal antibody purified with protein G chromatography is supplied in 100 μ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C . Stable for 1 year.

Applications

WB	1:500
ELISA	1:2000
ICC	1:200

Species Reactivity

Hu

End user should determine optimal dilution for their particular applications and experiments.

Western blot membranes were incubated with diluted antibody in 5% non-fat milk, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

Clone M032 detects a 120-150 kDa* band corresponding to Integrin β 1 on SDS-PAGE immunoblots of "Native" human A431, A549, MDA-MB-231, and LNCaP cell lysates, as well as human breast, skin, and lung tissues. The antibody weakly detects the denatured form of Integrin β 1. Clone M032 can be used in western blot, immunocytochemistry, and ELISA.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related Products

- IK6700 Integrin β family Antibody Sampler Kit
- IK6270 Integrin β 4 Phospho-Regulation Antibody Sampler Kit
- IM0041 Integrin β 1 (Extracellular region) Mouse Monoclonal
- IM0061 Integrin β 1 (Extracellular region) Mouse Monoclonal
- IM5821 Integrin β 1 (Extracellular region) Mouse Monoclonal
- IM5811 Integrin β 3 (Extracellular region) Mouse Monoclonal

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