

Background

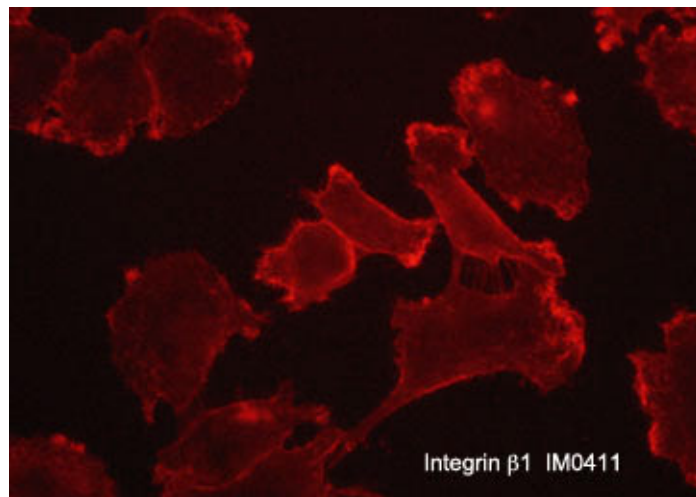
Integrins are cell adhesion molecules that can mediate bidirectional transfer of signals across the plasma membrane. The cytoplasmic domains of integrin family members interact with components of the signal transduction apparatus within cells. Integrin receptors contain noncovalently associated α and 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 β 1 subfamily includes 12 distinct integrin proteins that bind to different extracellular matrix molecules. Integrin β 1 has been implicated in various activities including embryonic development, blood vessel, skin, bone, and muscle formation, as well as tumor metastasis and angiogenesis.



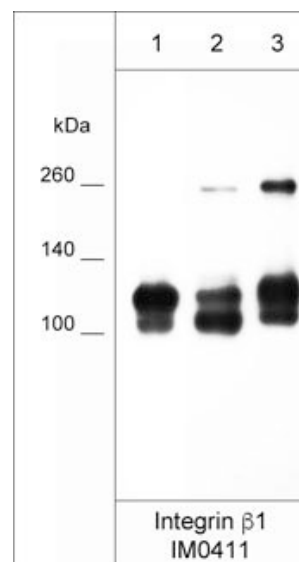
**Guaranteed
to
Outperform**

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 β 1 in aldehyde fixed and NP40 permeabilized human NCI-H1915 lung carcinoma cells. The cells were labeled with mouse monoclonal anti-Integrin β 1 (IM0411). The antibody was detected using goat anti-mouse DyLight® 594.



Western blot analysis of native cell lysates from human NCI-H446 lung cancer cells (lane 1), LNCaP prostate cancer cells (lane 2), and MCF7 breast cancer cells (lane 3). The blots were probed with mouse monoclonal anti-Integrin β 1 (IM0411) at 1:1000 dilution.

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Immunogen

Uniprot ID: P05556

Clone M041 was generated from a proprietary antigen related to the extracellular region of human integrin β 1 in complex with integrin α expressed in the NCI-H1915 lung cancer 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	1:1000
ELISA	1:2000
ICC	1:100
IP	1:100

Species Reactivity

Hu

Isotype: IgG2a

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: ELISA (Cap) = ELISA capture, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

Clone M0411 detects 120-150 kDa* bands corresponding to Integrin β 1 on SDS-PAGE immunoblots of native human A431, LNCaP, MCF7, and NCI-H446 cell lysates, as well as human lung tissue. The antibody does not detect the denatured form of Integrin β 1. Clone M0411 can be used in western blot, immunocytochemistry, and immunoprecipitation, as well as for ELISA detection when paired with Integrin β 1 IM0041 as the capture antibody.

*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

- IM0041 Integrin β 1 (Extracellular region) Mouse Monoclonal
- IM0321 Integrin β 1 (Extracellular region) Mouse Monoclonal
- IM5821 Integrin β 1 (Extracellular region) Mouse Monoclonal
- IK6700 Integrin β family Antibody Sampler Kit
- IK6270 Integrin β 4 Phospho-Regulation Antibody Sampler Kit



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