

Integrin β family

Antibody Sampler Kit

Cat. # IK6700
Size Kit

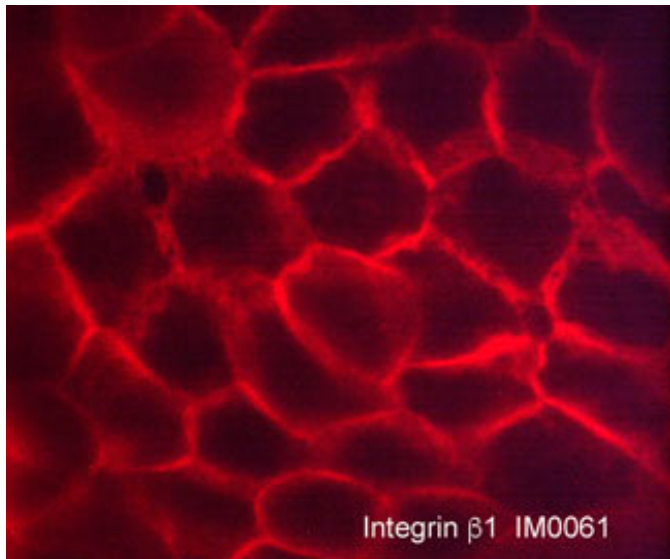
Kit Summary

The Integrin β family antibody sampler kit can be used to detect the expression level of Integrin β 1, Integrin β 3, and Integrin β 4. The kit includes high affinity mouse monoclonal antibodies to examine Integrin β expression levels in western blot, immunoprecipitation, and immunocytochemistry.

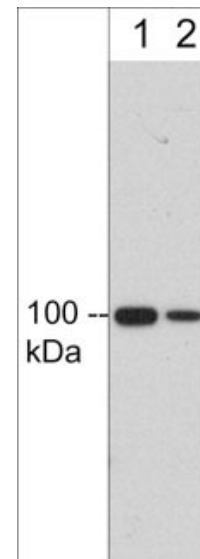
Kit Components

Cat. #	Description	Product Type	Size	Applications	Species Reactivity	WB Dilution
IM0041	Integrin β 1 (Extracellular region) M004	Mouse mAb	50 μ l	WB, ICC, IP, E	Hu	1:1000
IM0061	Integrin β 1 (Extracellular region) M006	Mouse mAb	50 μ l	WB, IP, ICC, E	Hu	1:1000
IM5821	Integrin β 1 (Extracellular region) M582	Mouse mAb	50 μ l	WB, E	Hu, Rt, Ms	1:1000
IM5811	Integrin β 3 (Extracellular region) M581	Mouse mAb	50 μ l	WB, ICC, E	Hu, Rt, Ms	1:500
IM1261	Integrin β 4 (Cytoplasmic region) M126	Mouse mAb	50 μ l	WB, E, ICC	Hu	1:1000

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry, IP = Immunoprecipitation, IHC = Immunohistochemistry, FC = Flow Cytometry
Species: H = Human, R = Rat, M = Mouse, C = Chicken, F = Fish, Fr = Frog, Rb = Rabbit



Immunocytochemical labeling of Integrin β 1 in paraformaldehyde fixed human A431 cells. The cells were labeled with mouse monoclonal anti-Integrin β 1 (clone M006). The antibody was detected using goat anti-mouse DyLight[®] 594.



Western blot analysis of human umbilical vein endothelial cells (HUVEC). The blots were probed with mouse monoclonal anti-integrin- β 3 (IM5811) at 1:250 (lane 1) and 1:1000 (lane 2).

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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. Integrin $\alpha 6\beta 4$ receptors are found in basement membrane along with laminin-5. These receptors are expressed in epithelial, schwann, endothelial and some immune cells. The cytoplasmic domain of the integrin- $\beta 4$ subunit recruits the adaptor protein Shc and is required for assembly of hemidesmosomes. The integrin $\beta 3$ subunit associates with integrin $\alpha 2$ in platelets and with integrin αV subunit to form the vitronectin receptor in endothelial cells. This receptor mediates endothelial cell adhesion to vitronectin, fibrinogen, von Willebrand factor, thrombospondin, laminin, and fibronectin.

Background References

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

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

Buffer and Storage

Mouse monoclonal antibodies are supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store all at -20°C . Stable for 1 year.

Product Citations

Cat. # **Citation & Application**

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