

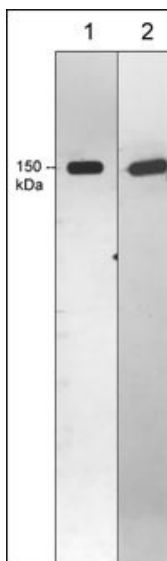
Kit Summary

The Integrin α family antibody sampler kit can be used to detect the expression level of Integrin $\alpha 2$, Integrin $\alpha 5$, Integrin αL , and Integrin αV . The kit includes high affinity mouse monoclonal antibodies to examine Integrin α expression levels in western blot, immunoprecipitation, and immunocytochemistry.

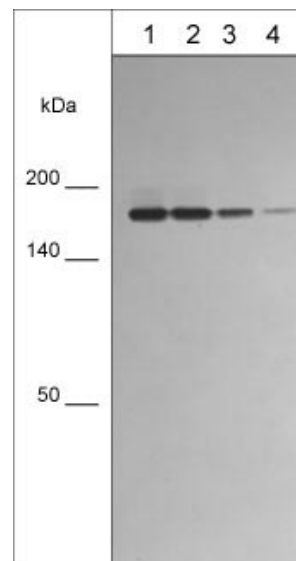
Kit Components

Cat. #	Description	Product Type	Size	Applications	Species Reactivity	WB Dilution
IM5831	Integrin $\alpha 2$ (Extracellular region)	Mouse mAb	50 μ l	WB, E, ICC	Hu, Rt, Ms	1:500
IM5951	Integrin $\alpha 5$ (Extracellular region)	Mouse mAb	50 μ l	WB, E, IP	Hu	1:1000
IM5941	Integrin αL (Extracellular region)	Mouse mAb	50 μ l	WB, E, ICC	Hu, Rt, Ms	1:1000
IM5841	Integrin αV (Extracellular region)	Mouse mAb	50 μ l	WB, E	Hu, Rt, Ms	1:500
MS3001	Anti-Mouse Ig:HRP	Donkey pAb	100 μ l	WB, E	Ms	1:5000

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



Western blot analysis of human MDA-MB-231 (lane 1) and A431 (lane 2) cells. The blot was probed with mouse monoclonal anti-Integrin $\alpha 2$ (IM5831) at 1:1000 dilution.



Western blot analysis of human Jurkat whole cell lysate. The blot was probed with mouse monoclonal anti-integrin αL (IM5941) at a dilution of 1:500 (lane 1), 1:1000 (lane 2), 1:2000 (lane 3) and 1:4000 (lane 4).

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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. Integrin $\alpha 5$ and integrin $\beta 1$ form a receptor for fibronectin and fibrinogen. This receptor is important for vascular development. Both integrin subunits of the fibronectin receptor are heavily glycosylated in their extracellular domains. This modification is essential for proper cell attachment to basal membranes. The integrin $\beta 3$ subunit associates with integrin $\alpha 2$ in platelets where this glycoprotein complex acts as a fibrinogen receptor and mediates platelet aggregation. Integrin $\alpha 5$ has been reported to suppress apoptosis by a Bcl-2 pathway and the C-terminal region is critical for cell motility and cytoskeletal rearrangements. The integrin $\beta 2$ subunit associates with integrin αL to form a receptor for ICAM family members, while integrin $\beta 3$ complexes with the integrin αV subunit to form the vitronectin receptor in endothelial cells.

Background References

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

Iwamoto, D, Calderwood, D.(2015) Curr Opin Cell Biol. 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. The secondary reagent is supplied in the same buffer without azide. Store all at -20°C . Stable for 1 year.

Product Citations

<u>Cat. #</u>	<u>Citation & Application</u>
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MS3001	Estrada-Bernal, A. et al. (2011) J Neurooncol. 102:353. (Western blot: MDCK epithelial, A549, and HEK293
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