

# Integrin $\alpha 5$ (Extracellular region)

Mouse Monoclonal IgG2a

Cat. # IM5951

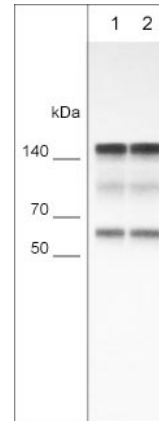
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## Background

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  $\alpha$  and  $\beta$  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  $\alpha$  subunits and 8  $\beta$  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. 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.

## Background References

Wang, L. et al. (2012) J Cell Physiol. 227(2):474.  
Iwamoto, D. & Calderwood, D. (2015) Cur Opin Cel Bio. 36:41.



Western blot analysis of human HeLa cell lysates. The blot was probed with mouse monoclonal anti-Integrin  $\alpha 5$  (IM5951) at a dilution of 1:500 (lane 1) and 1:2000 (lane 2).

## Applications

WB	1:1000
ELISA	1:2000
IP	1:100

## Species Reactivity

Hu

## Specificity

Clone M595 was purified using Protein A chromatography. The antibody detects a 150 kDa\* protein corresponding to the molecular mass of Integrin  $\alpha 5$  on SDS-PAGE immunoblots of human HeLa and A431 cells.

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, PBS, 0.04% Tween20 for 1 hour at room temperature.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

## Immunogen

Clone M595 was generated from a recombinant protein containing amino acid residues in the extracellular region of human Integrin  $\alpha 5$ . This sequence has low homology to other integrin family members.

## Buffer and Storage

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100 $\mu$ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at  $-20^{\circ}\text{C}$ . Stable for 1 year.

## Related Products

IM5831	Integrin $\alpha 2$ (Extracellular region) Mouse Monoclonal
IM5841	Integrin $\alpha V$ (Extracellular region) Mouse Monoclonal
IM5821	Integrin $\beta 1$ (Extracellular region) Mouse Monoclonal
IM5811	Integrin $\beta 3$ (Extracellular region) Mouse Monoclonal
IK6270	Integrin $\beta 4$ Phospho-Regulation Antibody Sampler Kit

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