

# Integrin $\beta$ 1 (Extracellular region)

Mouse Monoclonal IgG1

Cat. # IM5821

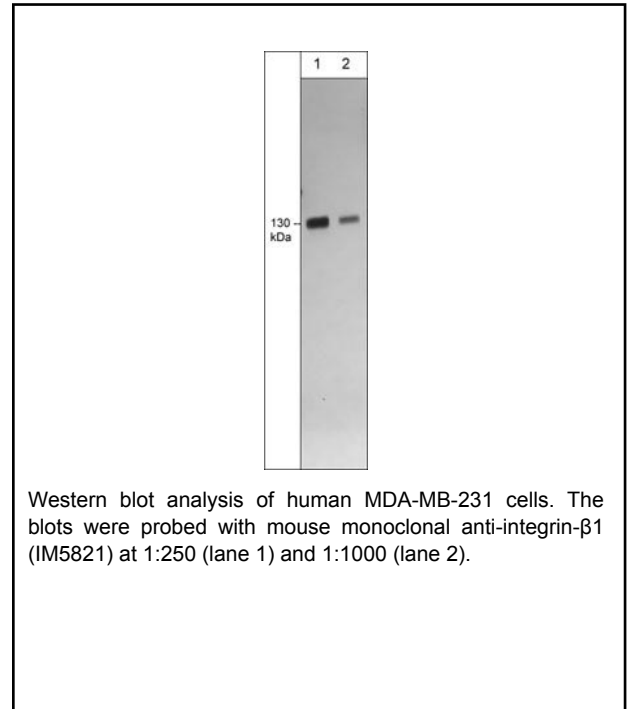
Size 100  $\mu$ l

## 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  $\alpha$  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. 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. In endothelial cells, integrin  $\beta$ 3 complexes with the integrin  $\alpha$ V subunit to form the vitronectin receptor. 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) Curr Opin Cell Biol. 36:41.



## Applications

WB 1:1000  
ELISA 1:1000

## Species Reactivity

Hu, Rt, Ms

## Specificity

This antibody detects a 130 kDa\* protein corresponding to the molecular mass of Integrin  $\beta$ 1 on SDS-PAGE immunoblots of human MDA-MB-231 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 1hour 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 M582 was generated from a recombinant protein containing amino acid residues in the extracellular region of human Integrin  $\beta$ 1. This sequence has high homology with rat and mouse Integrin  $\beta$ 1, and 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  $-20^{\circ}$ C. Stable for 1 year.

## Related Products

IM5831 Integrin  $\alpha$ 2 (Extracellular region) Mouse Monoclonal  
IM5841 Integrin  $\alpha$ V (Extracellular region) Mouse Monoclonal  
IM5811 Integrin  $\beta$ 3 (Extracellular region) Mouse Monoclonal  
IM1261 Integrin  $\beta$ 4 (Cytoplasmic Region) Mouse Monoclonal  
IK6270 Integrin  $\beta$ 4 Phospho-Regulation Antibody Sampler Kit

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