# SANTA CRUZ BIOTECHNOLOGY, INC.

# Integrin allb (B-9): sc-365938



# BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane  $\alpha$  and  $\beta$  subunits. The 16  $\alpha$  and 8  $\beta$  subunits heterodimerize to produce more than 20 different receptors. Most integrin receptors bind ligands that are components of the extracellular matrix, including Fibronectin, collagen and Vitronectin. Certain integrins can also bind to soluble ligands such as Fibrinogen, or to counterreceptors on adjacent cells such as the intracellular adhesion molecules (ICAMs), leading to aggregation of cells. Ligands serve to cross-link or cluster integrins by binding to adjacent integrin receptors; both receptor clustering and ligand occupancy are necessary for the activation of integrin-mediated responses. In addition to mediating cell adhesion and cytoskeletal organization, integrins function as signaling receptors. Signals transduced by integrins play a role in many biological processes, including cell growth, differentiation, migration and apoptosis.

## REFERENCES

- Hynes, R.O. 1992. Integrins: versatility, modulation and signaling in cell adhesion. Cell 69: 11-25.
- Miyamoto, S., et al. 1995. Synergistic roles for receptor occupancy and aggregation in integrin transmembrane function. Science 267: 883-885.

## **CHROMOSOMAL LOCATION**

Genetic locus: ITGA2B (human) mapping to 17q21.31; Itga2b (mouse) mapping to 11 E1.

#### SOURCE

Integrin  $\alpha$ Ilb (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1011-1039 at the C-terminus of Integrin  $\alpha$ Ilb of human origin.

# PRODUCT

Each vial contains 200  $\mu g$  IgG\_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin αIIb (B-9) is available conjugated to agarose (sc-365938 AC), 500 μg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365938 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365938 PE), fluorescein (sc-365938 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365938 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365938 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365938 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365938 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365938 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365938 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365938 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **APPLICATIONS**

Integrin  $\alpha$ IIb (B-9) is recommended for detection of Integrin  $\alpha$ IIb light chain of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffinembedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Integrin  $\alpha$ IIb siRNA (h): sc-43554, Integrin  $\alpha$ IIb siRNA (m): sc-45927, Integrin  $\alpha$ IIb shRNA Plasmid (h): sc-43554-SH, Integrin  $\alpha$ IIb shRNA Plasmid (m): sc-45927-SH, Integrin  $\alpha$ IIb shRNA (h) Lentiviral Particles: sc-43554-V and Integrin  $\alpha$ IIb shRNA (m) Lentiviral Particles: sc-45927-V.

Molecular Weight of Integrin  $\alpha$ IIb: 136 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, MEG-01 cell lysate: sc-2283 or K-562 whole cell lysate: sc-2203.

## DATA





Integrin  $\alpha llb$  (B-9): sc-365938. Western blot analysis of Integrin  $\alpha llb$  expression in HEL 92.1.7 (A), MEG-01 (B), K-562 (C), U-2 OS (D), TF-1 (E) and TK-1 (F) whole cell lysates.

Integrin  $\alpha$ IIb (B-9): sc-365938. Immunoperoxidase staining of formalin fixed, parafin-embedded mouse bone marrow tissue (**A**) and rat bone marrow tissue (**B**) showing membrane and cytoplasmic staining of megakaryocytes. Blocked with 0.25X UltraCruz<sup>®</sup> Blocking Reagent: sc-516214. Detection reagents used: m-IgGk BP-8: sc-516142 and ImmunoCruz<sup>®</sup> ABC Kit: sc-516216.

## SELECT PRODUCT CITATIONS

- Li, J., et al. 2016. Targeted drug delivery to circulating tumor cells via platelet membrane-functionalized particles. Biomaterials 76: 52-65.
- Fleury, S., et al. 2021. Tissue-specificity of antibodies raised against TrkB and p75<sup>NTR</sup> receptors; Implications for platelets as models of neurodegenerative diseases. Front. Immunol. 12: 606861.
- 3. Bonneau, S., et al. 2022. Correlation between neutrophil extracellular traps (NETs) expression and primary graft dysfunction following human lung transplantation. Cells 11: 3420.
- Pérez Vázquez, K., et al. 2024. α hemolysin of *Escherichia coli* induces a necrotic-like procoagulant state in platelets. Biochimie 227: 1-14.
- Abu El-Asrar, A.M., et al. 2025. ADAMTS13 improves endothelial function and reduces inflammation in diabetic retinopathy. Cells 14: 85.

## **RESEARCH USE**

For research use only, not for use in diagnostic procedures.