

# Integrin $\alpha$ IIb (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.
- Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. *Science* 268: 233-239.

## CHROMOSOMAL LOCATION

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

## SOURCE

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

## PRODUCT

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

Integrin  $\alpha$ IIb (B-9) is available conjugated to agarose (sc-365938 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365938 HRP), 200  $\mu$ g/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  $\mu$ g/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  $\mu$ g/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).

## STORAGE

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

## APPLICATIONS

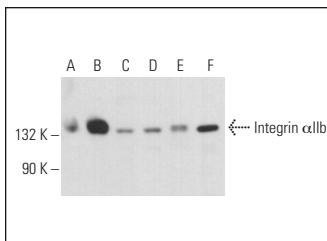
Integrin  $\alpha$ IIb (B-9) is recommended for detection of Integrin  $\alpha$ IIb light chain of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence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

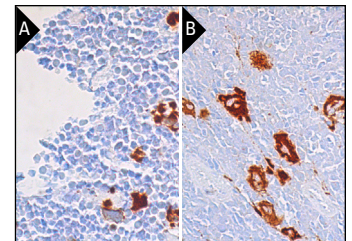
Molecular Weight of Integrin  $\alpha$ IIb: 136 kDa.

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  $\alpha$ IIb (B-9): sc-365938. Western blot analysis of Integrin  $\alpha$ IIb 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, paraffin-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-IgGκ-BP-B: 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.
- Miyashita, N., et al. 2019. Anagrelide modulates proplatelet formation resulting in decreased number and increased size of platelets. *Hemasphere* 3: e268.
- 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.
- Bonneau, S., et al. 2022. Correlation between neutrophil extracellular traps (NETs) expression and primary graft dysfunction following human lung transplantation. *Cells* 11: 3420.

## RESEARCH USE

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

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