

# Integrin $\alpha$ IIb (MWReg30): sc-19963

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: Itga2b (mouse) mapping to 11 E1.

## SOURCE

Integrin  $\alpha$ IIb (MWReg30) is a rat monoclonal antibody raised against mouse platelets expressing Integrin  $\alpha$ IIb.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking, sc-19963 L, 200  $\mu$ g/0.1 ml.

Integrin  $\alpha$ IIb (MWReg30) is available conjugated to agarose (sc-19963 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-19963 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-19963 PE), fluorescein (sc-19963 FITC), Alexa Fluor<sup>®</sup> 488 (sc-19963 AF488), Alexa Fluor<sup>®</sup> 546 (sc-19963 AF546), Alexa Fluor<sup>®</sup> 594 (sc-19963 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-19963 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-19963 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-19963 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Integrin  $\alpha$ IIb (MWReg30) is recommended for detection of Integrin  $\alpha$ IIb of mouse origin by 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 flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

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

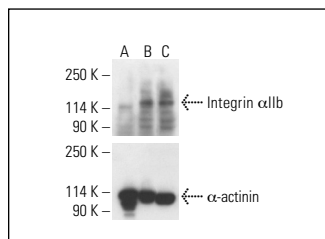
Molecular Weight of Integrin  $\alpha$ IIb: 136 kDa.

Positive Controls: chemically-treated A549 whole cell lysate.

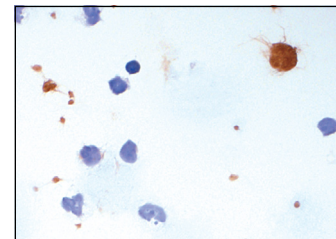
## STORAGE

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

## DATA



Integrin  $\alpha$ IIb (MWReg30): sc-19963. Western blot analysis of Integrin  $\alpha$ IIb expression in untreated (A) and chemically-treated (B, C) A549 whole cell lysates. Detection reagent used: anti-rat IgG-HRP.  $\alpha$ -actinin (H-2): sc-17829 used as loading control. Detection reagent used: m-IgG<sub>1</sub> BP-HRP: sc-525408.



Integrin  $\alpha$ IIb (MWReg30): sc-19963. Immunoperoxidase staining of formalin-fixed, paraffin-embedded mouse peripheral blood lymphocytes showing membrane staining of platelets and megakaryocytes.

## SELECT PRODUCT CITATIONS

- Qin, X., et al. 2003. Deficiency of the mouse complement regulatory protein mCd59b results in spontaneous hemolytic anemia with platelet activation and progressive male infertility. *Immunity* 18: 217-227.
- Mylona, A., et al. 2013. Genome-wide analysis shows that Ldb1 controls essential hematopoietic genes/pathways in mouse early development and reveals novel players in hematopoiesis. *Blood* 121: 2902-2913.
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- Zhao, L., et al. 2017. Phosphatidylinositol transfer protein- $\alpha$  in platelets is inconsequential for thrombosis yet is utilized for tumor metastasis. *Nat. Commun.* 8: 1216.
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- Morodomi, Y., et al. 2019. Modified application of Kawamoto's film method for super-resolution imaging of megakaryocytes in undecalcified bone marrow. *Res. Pract. Thromb. Haemost.* 4: 86-91.
- Langrish, C.L., et al. 2021. Preclinical efficacy and anti-inflammatory mechanisms of action of the bruton tyrosine kinase inhibitor rilzabrutinib for immune-mediated disease. *J. Immunol.* 206: 1454-1468.
- Yamane, S., et al. 2022. The role of thromboxane prostanoid receptor signaling in gastric ulcer healing. *Int. J. Exp. Pathol.* 103: 4-12.
- Wu, G., et al. 2024. Shexiang Baixin Pill enriches *Lactobacillus* to regulate purine metabolism in patients with stable coronary artery disease. *Phytomedicine* 130: 155727.

## RESEARCH USE

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