

Integrin α IIb (M-148): sc-7310

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits. The 16α and 8β 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 (human) mapping to 17q21.31.

SOURCE

Integrin α IIb (M-148) is a mouse monoclonal antibody raised against medulloblastoma tissue.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin α IIb (M-148) is available conjugated to agarose (sc-7310 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7310 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7310 PE), fluorescein (sc-7310 FITC), Alexa Fluor[®] 488 (sc-7310 AF488), Alexa Fluor[®] 546 (sc-7310 AF546), Alexa Fluor[®] 594 (sc-7310 AF594) or Alexa Fluor[®] 647 (sc-7310 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-7310 AF680) or Alexa Fluor[®] 790 (sc-7310 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Integrin α IIb (M-148) is recommended for detection of Integrin α IIb of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

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

Molecular Weight of Integrin α IIb: 136 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

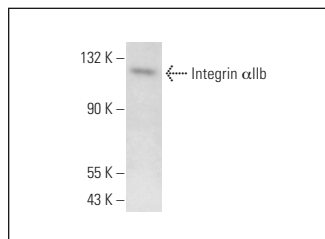
RESEARCH USE

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

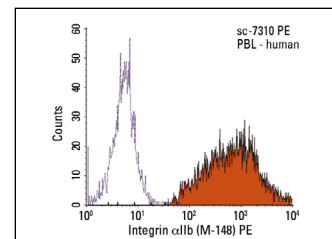
STORAGE

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

DATA



Integrin α IIb (M-148): sc-7310. Western blot analysis of Integrin α IIb expression in Jurkat whole cell lysate.



Integrin α IIb (M-148) PE: sc-7310 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG₁-PE: sc-2866.

SELECT PRODUCT CITATIONS

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2. Mitchell, W.B., et al. 2003. Two novel mutations in the α IIb calcium-binding domains identify hydrophobic regions essential for α IIb β 3 biogenesis. *Blood* 101: 2268-2276.
3. Sato, Y., et al. 2005. Platelet-derived soluble factors induce human extravillous trophoblast migration and differentiation: platelets are a possible regulator of trophoblast infiltration into maternal spiral arteries. *Blood* 106: 428-435.
4. Mitchell, W.B., et al. 2006. α IIb β 3 biogenesis is controlled by engagement of α IIb in the calnexin cycle via the N15-linked glycan. *Blood* 107: 2713-2719.
5. Furukawa, K., et al. 2007. Platelets are novel regulators of neovascularization and luteinization during human corpus luteum formation. *Endocrinology* 148: 3056-3064.
6. Georgescu, A., et al. 2009. Chronic venous insufficiency is associated with elevated level of circulating microparticles. *J. Thromb. Haemost.* 7: 1566-1575.
7. Li, J., et al. 2016. Targeted drug delivery to circulating tumor cells via platelet membrane-functionalized particles. *Biomaterials* 76: 52-65.
8. Kovalenko, T.A., et al. 2021. Asymmetrical forces dictate the distribution and morphology of platelets in blood clots. *Cells* 10: 584.
9. Grichine, A., et al. 2023. The fate of mitochondria during platelet activation. *Blood Adv.* 7: 6290-6302.

PROTOCOLS

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