

Integrin α IIb (B-10): sc-166599

BACKGROUND

Integrins are heterodimers composed of non-covalently associated transmembrane α and β subunits. The 16 α and 8 β 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.
- Sheppard, D. 1996. Epithelial integrins. *Bioessays* 18: 655-660.
- Juliano, R. 1996. Cooperation between soluble factors and integrin-mediated cell anchorage in the control of cell growth and differentiation. *Bioessays* 18: 911-917.

CHROMOSOMAL LOCATION

Genetic locus: ITGA2B (human) mapping to 17q21.31.

SOURCE

Integrin α IIb (B-10) is a mouse monoclonal antibody raised against amino acids 847-1006 mapping near the C-terminus of Integrin α IIb of human origin.

PRODUCT

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

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

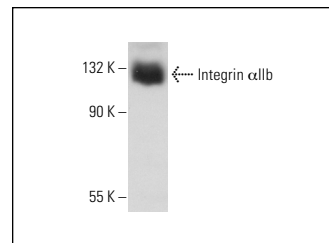
Integrin α IIb (B-10) is recommended for detection of Integrin α IIb heavy and light chain of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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: human platelet extract: sc-363773, HEL 92.1.7 cell lysate: sc-2270 or MEG-01 cell lysate: sc-2283.

DATA



Integrin α IIb (B-10): sc-166599. Western blot analysis of Integrin α IIb expression in HEL 92.1.7 whole cell lysate.

SELECT PRODUCT CITATIONS

- Gutiérrez-Herrero, S., et al. 2012. C3G transgenic mouse models with specific expression in platelets reveal a new role for C3G in platelet clotting through its GEF activity. *Biochim. Biophys. Acta* 1823: 1366-1377.
- Nguyen, Q.L., et al. 2017. Platelets from pulmonary hypertension patients show increased mitochondrial reserve capacity. *JCI Insight* 2: e91415.
- Braganza, A., et al. 2019. Platelet bioenergetics correlate with muscle energetics and are altered in older adults. *JCI Insight* 5: e128248.
- Nguyen, Q.L., et al. 2019. Alterations in platelet bioenergetics in Group 2 PH-HFpEF patients. *PLoS ONE* 14: e0220490.
- Montenont, E., et al. 2021. CRISPR-edited megakaryocytes for rapid screening of platelet gene functions. *Blood Adv.* 5: 2362-2374.
- Vismara, M., et al. 2022. Proteomic and functional profiling of platelet-derived extracellular vesicles released under physiological or tumor-associated conditions. *Cell Death Discov.* 8: 467.



See **Integrin α IIb (B-9): sc-365938** for Integrin α IIb antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.