SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin β2 (C71/16): sc-65874

BACKGROUND

Integrins are heterodimers composed of noncovalently 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

1. Hynes, R.O. 1992. Integrins: versatility, modulation and signaling in cell adhesion. Cell 69: 11-25.
2. Miyamoto, S., Akiyama, S.K. and Yamada, K.M. 1995. Synergistic roles for receptor occupancy and aggregation in integrin transmembrane function. Science 267: 883-885.
3. Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. Science 268: 233-239.
4. Sheppard, D. 1996. Epithelial integrins. Bioessays 18: 655-660.
5. Juliano, R. 1996. Cooperation between soluble factors and integrin-mediated cell anchorage in the control of cell growth and differentiation. Bioessays 18: 911-917.
6. Naessens, J., Howard, C.J. and Hopkins J. 1997. Nomenclature and characterization of leukocyte differentiation antigens in ruminants. Immunol. Today 18: 365-638.
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8. Drbal, K., Angelisova, P., Hilgert, I., Cerny, J., Novak, P. and Horejsi, V. 2001. A proteolytically truncated form of free CD18, the common chain of leukocyte integrins, as a novel marker of activated myeloid cells. Blood 98: 1561-1566.
9. Dusinsky, R., Tomaskova, J., Horovska, L. and Simon, M. 2001. Monoclonal antibodies specific for bovine CD18. Folia Biol. 47: 108-110.

STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Itgb2 (mouse) mapping to 10 C1.

SOURCE

Integrin β2 (C71/16) is a rat monoclonal antibody raised against cell membrane proteins purified from BW5147 cells of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

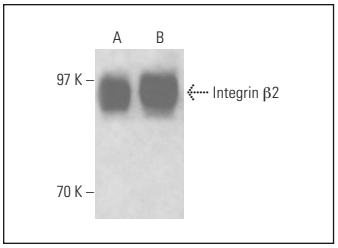
Integrin β2 (C71/16) is recommended for detection of Integrin β2 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Integrin β2 siRNA (m): sc-35676, Integrin β2 shRNA Plasmid (m): sc-35676-SH and Integrin β2 shRNA (m) Lentiviral Particles: sc-35676-V.

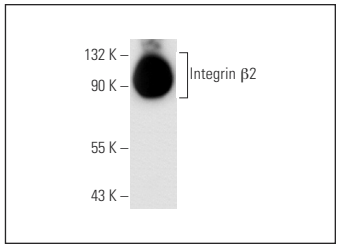
Molecular Weight of Integrin β2: 95 kDa.

Positive Controls: mouse PBL whole cell lysate, CTLL-2 cell lysate: sc-2242 or TK-1 whole cell lysate: sc-364798.

DATA



Integrin β2 (C71/16): sc-65874. Western blot analysis of Integrin β2 expression in TK-1 (**A**) and CTLL-2 (**B**) whole cell lysates.



Integrin β2 (C71/16): sc-65874. Western blot analysis of Integrin β2 expression in mouse PBL whole cell lysate.

RESEARCH USE

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

CONJUGATES

See **Integrin β2 (CTB104): sc-8420** for Integrin β2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.