

Integrin β 2 (1.BB.246): sc-71397

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

- 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.
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- Drbal, K., et al. 2000. Human leukocytes contain a large pool of free forms of CD18. *Biochem. Biophys. Res. Commun.* 275: 295-299.
- Drbal, K., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: ITGB2 (human) mapping to 21q22.3.

SOURCE

Integrin β 2 (1.BB.246) is a mouse monoclonal antibody raised against leukocytes of a patient suffering from LGL-type leukemia of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for biological studies, sc-71397 L, 100 μ g/0.1 ml.

Integrin β 2 (1.BB.246) is available conjugated either phycoerythrin (sc-71397 PE, 100 tests in 2 ml) or fluorescein (sc-71397 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

APPLICATIONS

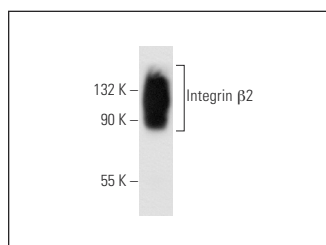
Integrin β 2 (1.BB.246) is recommended for detection of an epitope involving residues 534-546 in cysteine-rich repeat 3 of Integrin β 2 of human origin by Western Blotting (non-reducing) (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1×10^6 cells).

Suitable for use as control antibody for Integrin β 2 siRNA (h): sc-29374, Integrin β 2 shRNA Plasmid (h): sc-29374-SH and Integrin β 2 shRNA (h) Lentiviral Particles: sc-29374-V.

Molecular Weight of Integrin β 2: 95 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

DATA



Integrin β 2 (1.BB.246): sc-71397. Western blot analysis of Integrin β 2 expression in HL-60 whole cell lysate.

SELECT PRODUCT CITATIONS

- Saed, G.M., et al. 2018. Novel expression of CD11b in epithelial ovarian cancer: potential therapeutic target. *Gynecol. Oncol.* 148: 567-575.
- Cheng, N., et al. 2021. Targeting G α ₁₃-Integrin interaction ameliorates systemic inflammation. *Nat. Commun.* 12: 3185.
- Chang, C.W., et al. 2021. G α ₁₃ mediates transendothelial migration of neutrophils by promoting integrin-dependent motility without affecting directionality. *J. Immunol.* 207: 3038-3049.

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.



See **Integrin β 2 (CTB104): sc-8420** for Integrin β 2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.