

Integrin β 1 (3H1192): sc-71392

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.

CHROMOSOMAL LOCATION

Genetic locus: ITGB1 (human) mapping to 10p11.22.

SOURCE

Integrin β 1 (3H1192) is a mouse monoclonal antibody raised against Integrin β 1 of human origin.

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 β 1 (3H1192) is available conjugated to either phycoerythrin (sc-71392 PE) or fluorescein (sc-71392 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

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.

APPLICATIONS

Integrin β 1 (3H1192) is recommended for detection of Integrin β 1 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 β 1 siRNA (h): sc-35674, Integrin β 1 shRNA Plasmid (h): sc-35674-SH and Integrin β 1 shRNA (h) Lentiviral Particles: sc-35674-V.

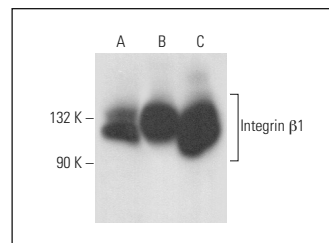
Molecular Weight of Integrin β 1: 138 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, U-87 MG cell lysate: sc-2411 or HeLa whole cell lysate: sc-2200.

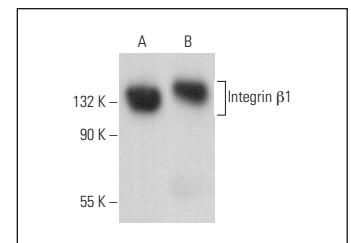
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Integrin β 1 (3H1192): sc-71392. Western blot analysis of Integrin β 1 expression in HeLa (A), A-431 (B) and HUV-EC-C (C) whole cell lysates.




Integrin β 1 (3H1192): sc-71392. Western blot analysis of Integrin β 1 expression in U-87 MG whole cell lysate (A) and human heart tissue extract (B).

SELECT PRODUCT CITATIONS

- Fang, Z., et al. 2010. The membrane-associated protein, supervillin, accelerates F-Actin-dependent rapid integrin recycling and cell motility. *Traffic* 11: 782-799.
- Lo Buono, N., et al. 2011. The CD157-integrin partnership controls transendothelial migration and adhesion of human monocytes. *J. Biol. Chem.* 286: 18681-18691.
- Fonsato, V., et al. 2012. Human liver stem cell-derived microvesicles inhibit hepatoma growth in SCID mice by delivering antitumor microRNAs. *Stem Cells* 30: 1985-1998.
- Koetsier, J.L., et al. 2014. Plakophilin 2 affects cell migration by modulating focal adhesion dynamics and integrin protein expression. *J. Invest. Dermatol.* 134: 112-122.
- Moura, C.E.B., et al. 2019. Effect of plasma-nitrided titanium surfaces on the differentiation of pre-osteoblastic cells. *Artif. Organs* 43: 764-772.

RESEARCH USE

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



See **Integrin β 1 (A-4): sc-374429** for Integrin β 1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.