SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin β5 (B-10): sc-390186

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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., et al. 1995. Synergistic roles for receptor occupancy and aggregation in integrin transmembrane function. Science 267: 883-885.

CHROMOSOMAL LOCATION

Genetic locus: ITGB5 (human) mapping to 3q21.2; Itgb5 (mouse) mapping to 16 B3.

SOURCE

Integrin β5 (B-10) is a mouse monoclonal antibody raised against amino acids 635-730 mapping near the C-terminus of Integrin β5 of human origin.

PRODUCT

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

APPLICATIONS

Integrin β5 (B-10) is recommended for detection of Integrin β5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 β5 siRNA (h): sc-35680, Integrin β5 siRNA (m): sc-35681, Integrin β5 siRNA (r): sc-270465, Integrin β5 shRNA Plasmid (h): sc-35680-SH, Integrin β5 shRNA Plasmid (m): sc-35681-SH, Integrin β5 shRNA Plasmid (r): sc-270465-SH, Integrin β5 shRNA (h) Lentiviral Particles: sc-35680-V, Integrin β5 shRNA (m) Lentiviral Particles: sc-35681-V and Integrin β5 shRNA (r) Lentiviral Particles: sc-270465-V.

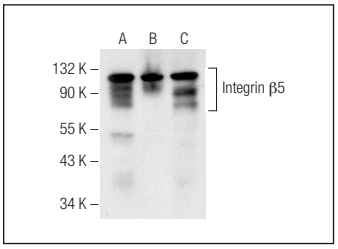
Molecular Weight of Integrin β5: 100 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, SW480 cell lysate: sc-2219 or COLO 205 whole cell lysate: sc-364177.

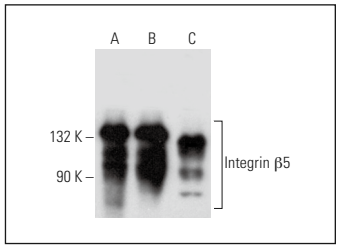
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 β5 (B-10): sc-390186. Western blot analysis of Integrin β5 expression in COLO 320DM (**A**), Caco-2 (**B**) and COLO 205 (**C**) whole cell lysates.



Integrin β5 (B-10): sc-390186. Western blot analysis of Integrin β5 expression in SW480 (**A**), HT-29 (**B**) and 3T3-L1 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lee, J.E., et al. 2016. Identification of EDIL3 on extracellular vesicles involved in breast cancer cell invasion. J. Proteomics 131: 17-28.
2. Blanchard, N., et al. 2022. Dichotomous role of Integrin-β5 in lung endothelial cells. Pulm. Circ. 12: e12156.

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.