SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin β8 (h): 293T Lysate: sc-158641

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits. The 16α and 8β 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. Moyle, M., et al. 1991. Cloning and expression of a divergent Integrin subunit β8. J. Biol. Chem. 266: 19650-19658.
2. Hynes, R.O. 1992. Integrins: versatility, modulation, and signaling in cell adhesion. Cell 69: 11-25.
3. Miyamoto, S., et al. 1995. Synergistic roles for receptor occupancy and aggregation in Integrin transmembrane function. Science 267: 883-885.
4. Venstrom, K., et al. 1995. β8 Integrins mediate interactions of chick sensory neurons with Laminin 1, Collagen IV, and Fibronectin. Mol. Biol. Cell 6: 419-431.
5. Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. Science 268: 233-239.
6. Sheppard, D. 1996. Epithelial Integrins. Bioessays 18: 655-660.
7. Juliano, R. 1996. Cooperation between soluble factors and Integrin-mediated cell anchorage in the control of cell growth and differentiation. Bioessays 18: 911-917.
8. Testaz, S., et al. 1999. Adhesion and migration of avian neural crest cells on Fibronectin require the cooperating activities of multiple integrins of the β1 and β3 families. J. Cell Sci. 112: 4715-4728.
9. Stefansson, A., et al. 2004. Determination of N- and C-terminal borders of the transmembrane domain of Integrin subunits. J. Biol. Chem. 279: 21200-21205.

CHROMOSOMAL LOCATION

Genetic locus: ITGB8 (human) mapping to 7p21.1.

PRODUCT

Integrin β8 (h): 293T Lysate represents a lysate of human Integrin β8 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

Integrin β8 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Integrin β8 antibodies. Recommended use: 10-20 µl per lane.

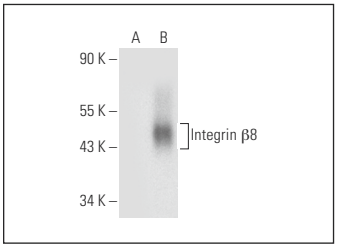
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Integrin β8 (E-6): sc-514150 is recommended as a positive control antibody for Western Blot analysis of enhanced human Integrin β8 expression in Integrin β8 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Integrin β8 (E-6): sc-514150. Western blot analysis of Integrin β8 expression in non-transfected: sc-117752 (**A**) and human Integrin β8 transfected: sc-158641 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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