SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin β8 (E-6): sc-514150

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. 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. Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. Science 268: 233-239.

CHROMOSOMAL LOCATION

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

SOURCE

Integrin β8 (E-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 64-87 within an internal region of Integrin β8 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.

Integrin β8 (E-6) is available conjugated to agarose (sc-514150 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514150 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514150 PE), fluorescein (sc-514150 FITC), Alexa Fluor® 488 (sc-514150 AF488), Alexa Fluor® 546 (sc-514150 AF546), Alexa Fluor® 594 (sc-514150 AF594) or Alexa Fluor® 647 (sc-514150 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514150 AF680) or Alexa Fluor® 790 (sc-514150 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514150 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

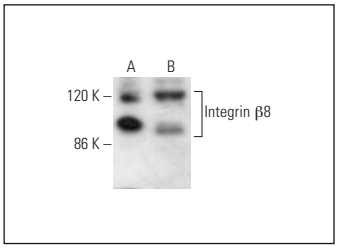
Integrin β8 (E-6) is recommended for detection of Integrin β8 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Integrin β8 siRNA (h): sc-43137, Integrin β8 shRNA Plasmid (h): sc-43137-SH and Integrin β8 shRNA (h) Lentiviral Particles: sc-43137-V.

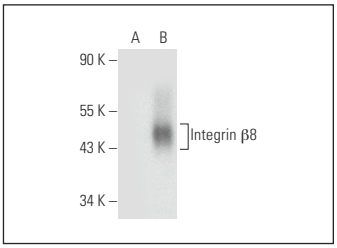
Molecular Weight of Integrin β8: 97 kDa.

Positive Controls: Integrin β8 (h): 293T Lysate: sc158641, A-375 cell lysate: sc-3811 or RPMI2650 whole cell lysate: sc-364192.

DATA



Integrin β8 (E-6): sc-514150. Western blot analysis of Integrin β8 expression in A-375 (**A**) and RPMI2650 (**B**) whole cell lysates.



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.

SELECT PRODUCT CITATIONS

1. Zhou, M., et al. 2020. Integrin $\alpha_v\beta_8$ serves as a novel marker of poor prognosis in colon carcinoma and regulates cell invasiveness through the activation of TGFβ1. J. Cancer 11: 3803-3815.
2. Cui, Y., et al. 2021. Identification of key candidate genes involved in the progression of idiopathic pulmonary fibrosis. Molecules 26: 1123.
3. Zou, W., et al. 2021. Downregulation of circ_0037655 impedes glioma formation and metastasis via the regulation of miR-1229-3p/ITGB8 axis. Open Life Sci. 16: 442-454.
4. Mun, S., et al. 2022. Transcriptome profile of membrane and extracellular matrix components in ligament-fibroblastic progenitors and cementoblasts differentiated from human periodontal ligament cells. Genes 13: 659.
5. Kerhervé, M., et al. 2022. Neuropilin-1 modulates the 3D invasive properties of glioblastoma stem-like cells. Front. Cell Dev. Biol. 10: 981583.

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.