SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin α6 (541A11): sc-47772

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.
3. Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. Science 268: 233-239.
4. Sheppard, D. 1996. Epithelial integrins. Bioessays 18: 655-660.
5. Juliano, R. 1996. Cooperation between soluble factors and integrin-mediated cell anchorage in the control of cell growth and differentiation. Bioessays 18: 911-917.

CHROMOSOMAL LOCATION

Genetic locus: ITGA6 (human) mapping to 2q31.1; Itga6 (mouse) mapping to 2 C2.

SOURCE

Integrin α6 (541A11) is a mouse monoclonal antibody raised against recombinant Integrin α6 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin α6 (541A11) is available conjugated to either phycoerythrin (sc-47772 PE) or fluorescein (sc-47772 FITC), 200 µg/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.

RESEARCH USE

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

APPLICATIONS

Integrin α6 (541A11) is recommended for detection of Integrin α6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10^6 cells).

Integrin α6 (541A11) is also recommended for detection of Integrin α6 in additional species, including canine.

Suitable for use as control antibody for Integrin α6 siRNA (h): sc-43129, Integrin α6 siRNA (m): sc-43130, Integrin α6 shRNA Plasmid (h): sc-43129-SH, Integrin α6 shRNA Plasmid (m): sc-43130-SH, Integrin α6 shRNA (h) Lentiviral Particles: sc-43129-V and Integrin α6 shRNA (m) Lentiviral Particles: sc-43130-V.

Molecular Weight of Integrin α6 proform: 140 kDa.

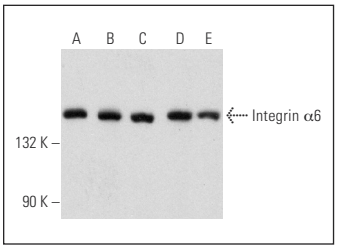
Molecular Weight of Integrin α6 heavy chain: 120 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or NCI-H1299 whole cell lysate: sc-364234.

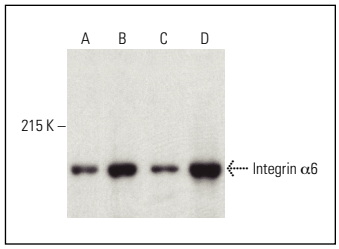
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml).

DATA



Integrin α6 (541A11): sc-47772. Western blot analysis of Integrin α6 expression in Hep G2 (**A**), HeLa (**B**), JAR (**C**), NCI-H1299 (**D**) and A-431 (**E**) whole cell lysates.



Integrin α6 (541A11): sc-47772. Western blot analysis of Integrin α6 expression in JAR (**A**), HeLa (**B**), Hep G2 (**C**) and NCI-H1299 (**D**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Wu, Y., et al. 2019. ITGA6 and RPSA synergistically promote pancreatic cancer invasion and metastasis via PI3K and MAPK signaling pathways. Exp. Cell Res. 379: 30-47.

CONJUGATES

See **Integrin α6 (F-6): sc-374057** for Integrin α6 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.