

# Integrin $\alpha 6$ (2Q959): sc-71427

## BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane  $\alpha$  and  $\beta$  subunits. The 16  $\alpha$  and 8  $\beta$  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.
6. Chung, J., et al. 2002. Integrin  $\alpha 6/\beta 4$  regulation of eIF-4E activity and VEGF translation: a survival mechanism for carcinoma cells. *J. Cell Biol.* 158: 165-174.
7. Kazarov, A.R., et al. 2002. An extracellular site on tetraspanin CD151 determines  $\alpha 3$  and  $\alpha 6$  Integrin-dependent cellular morphology. *J. Cell Biol.* 158: 1299-1309.

## CHROMOSOMAL LOCATION

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

## SOURCE

Integrin  $\alpha 6$  (2Q959) is a mouse monoclonal antibody raised against SW1222 colorectal cell line of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin  $\alpha 6$  (2Q959) is available conjugated to either phycoerythrin (sc-71427 PE) or fluorescein (sc-71427 FITC), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM.

## APPLICATIONS

Integrin  $\alpha 6$  (2Q959) is recommended for detection of Integrin  $\alpha 6$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per  $1 \times 10^6$  cells).

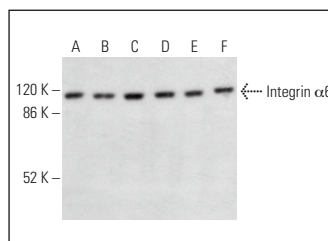
Suitable for use as control antibody for Integrin  $\alpha 6$  siRNA (h): sc-43129, Integrin  $\alpha 6$  siRNA (m): sc-43130, Integrin  $\alpha 6$  shRNA Plasmid (h): sc-43129-SH, Integrin  $\alpha 6$  shRNA Plasmid (m): sc-43130-SH, Integrin  $\alpha 6$  shRNA (h) Lentiviral Particles: sc-43129-V and Integrin  $\alpha 6$  shRNA (m) Lentiviral Particles: sc-43130-V.

Molecular Weight of Integrin  $\alpha 6$  proform: 140 kDa.

Molecular Weight of Integrin  $\alpha 6$  heavy chain: 120 kDa.

Positive Controls: DU 145 cell lysate: sc-2268, NTERA-2 cl.D1 whole cell lysate: sc-364181 or Hep G2 cell lysate: sc-2227.

## DATA



Integrin  $\alpha 6$  (2Q959): sc-71427. Western blot analysis of Integrin  $\alpha 6$  expression in Hep G2 (A), DU 145 (B), NTERA-2 cl.D1 (C), HeLa (D), JAR (E) and NCI-H1299 (F) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Kandasamy, K., et al. 2014. Polysulfone membranes coated with polymerized 3,4-dihydroxy-L-phenylalanine are a versatile and cost-effective synthetic substrate for defined long-term cultures of human pluripotent stem cells. *Biomacromolecules* 15: 2067-2078.

## 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.



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