

# Integrin $\alpha$ V (T-20): sc-6618

## 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

- Horton, M.A., et al. 1985. Monoclonal antibodies to osteoclastomas (giant cell bone tumors): definition of osteoclast-specific cellular antigens. *Cancer Res.* 45: 5663-5669.
- Hynes, R.O. 1992. Integrins: versatility, modulation, and signaling in cell adhesion. *Cell* 69: 11-25.
- Miyamoto, S., et al. 1995. Synergistic roles for receptor occupancy and aggregation in Integrin transmembrane function. *Science* 267: 883-885.
- Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. *Science* 268: 233-239.
- Sheppard, D. 1996. Epithelial integrins. *Bioessays* 18: 655-660.

## CHROMOSOMAL LOCATION

Genetic locus: ITGAV (human) mapping to 2q32.1; Itgav (mouse) mapping to 2 D.

## SOURCE

Integrin  $\alpha$ V (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Integrin  $\alpha$ V of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6618 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

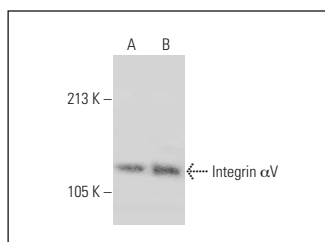
Integrin  $\alpha$ V (T-20) is recommended for detection of Integrin  $\alpha$ V heavy chain of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Integrin  $\alpha$ V siRNA (h): sc-29373, Integrin  $\alpha$ V siRNA (m): sc-35694, Integrin  $\alpha$ V shRNA Plasmid (h): sc-29373-SH, Integrin  $\alpha$ V shRNA Plasmid (m): sc-35694-SH, Integrin  $\alpha$ V shRNA (h) Lentiviral Particles: sc-29373-V and Integrin  $\alpha$ V shRNA (m) Lentiviral Particles: sc-35694-V.

Molecular Weight of Integrin  $\alpha$ V: 125-135 kDa.

Positive Controls: C32 whole cell lysate: sc-2205, A549 cell lysate: sc-2413 or HUV-EC-C whole cell lysate: sc-364180.

## DATA



Integrin  $\alpha$ V (T-20): sc-6618. Western blot analysis of Integrin  $\alpha$ V expression in A549 (A) and HUV-EC-C (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Li, J., et al. 2007. Antisense integrin  $\alpha$ V and  $\beta$ 3 gene therapy suppresses subcutaneously implanted hepatocellular carcinomas. *Dig. Liver Dis.* 39: 557-565.
- Scarlett, A., et al. 2008. Thyroid hormone stimulation of extracellular signal-regulated kinase and cell proliferation in human osteoblast-like cells is initiated at Integrin  $\alpha$ V/ $\beta$ 3. *J. Endocrinol.* 196: 509-517.
- Evellin, S., et al. 2013. FOSL1 controls the assembly of endothelial cells into capillary tubes by direct repression of  $\alpha$ v and  $\beta$ 3 integrin transcription. *Mol. Cell. Biol.* 33: 1198-1209.

## RESEARCH USE

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



Try **Integrin  $\alpha$ V (P2W7): sc-9969** or **Integrin  $\alpha$ V (H-2): sc-376156**, our highly recommended monoclonal alternatives to Integrin  $\alpha$ V (T-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Integrin  $\alpha$ V (P2W7): sc-9969**.