

# Integrin $\alpha$ V (13C2): sc-53360

## 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.
- Juliano, R. 1996. Cooperation between soluble factors and integrin-mediated cell anchorage in the control of cell growth and differentiation. *Bioessays* 18: 911-917.
- Levy, L., et al. 2000.  $\beta$ 1 integrins regulate keratinocyte adhesion and differentiation by distinct mechanisms. *Mol. Biol. Cell* 11: 453-466.

## CHROMOSOMAL LOCATION

Genetic locus: ITGAV (human) mapping to 2q32.1.

## SOURCE

Integrin  $\alpha$ V (13C2) is a mouse monoclonal antibody raised against a cell suspension containing osteoclasts of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin  $\alpha$ V (13C2) is available conjugated to either phycoerythrin (sc-53360 PE) or fluorescein (sc-53360 FITC), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM.

## RESEARCH USE

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

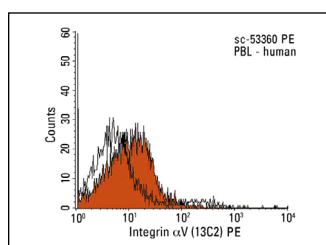
## APPLICATIONS

Integrin  $\alpha$ V (13C2) is recommended for detection of Integrin  $\alpha$ V of human origin by flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

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

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

## DATA



Integrin  $\alpha$ V (13C2): sc-53360. Indirect FCM analysis of human peripheral blood leukocytes stained with Integrin  $\alpha$ V (13C2), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG<sub>1</sub>: sc-3877.

## SELECT PRODUCT CITATIONS

- Teklemariam, T., et al. 2011. Functional analysis of a recombinant PIII-SVMP, GST-acocostatin; an apoptotic inducer of HUVEC and HeLa, but not SK-Mel-28 cells. *Toxicon* 57: 646-656.

## 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) for detailed protocols and support products.

## CONJUGATES

See **Integrin  $\alpha$ V (P2W7): sc-9969** for Integrin  $\alpha$ V antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.