

# Integrin $\beta 3$ (SAP): sc-13579

## BACKGROUND

Integrins are heterodimers composed of non-covalently 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.

## CHROMOSOMAL LOCATION

Genetic locus: ITGB3 (human) mapping to 17q21.32; Itgb3 (mouse) mapping to 11 E1.

## SOURCE

Integrin  $\beta 3$  (SAP) is a mouse monoclonal antibody raised against human platelet membrane fraction.

## 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  $\beta 3$  (SAP) is available conjugated to either phycoerythrin (sc-13579 PE) or fluorescein (sc-13579 FITC), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM.

## APPLICATIONS

Integrin  $\beta 3$  (SAP) is recommended for detection of Integrin  $\beta 3$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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  $\beta 3$  siRNA (h): sc-29375, Integrin  $\beta 3$  siRNA (m): sc-35677, Integrin  $\beta 3$  siRNA (r): sc-63292, Integrin  $\beta 3$  shRNA Plasmid (h): sc-29375-SH, Integrin  $\beta 3$  shRNA Plasmid (m): sc-35677-SH, Integrin  $\beta 3$  shRNA Plasmid (r): sc-63292-SH, Integrin  $\beta 3$  shRNA (h) Lentiviral Particles: sc-29375-V, Integrin  $\beta 3$  shRNA (m) Lentiviral Particles: sc-35677-V and Integrin  $\beta 3$  shRNA (r) Lentiviral Particles: sc-63292-V.

Molecular Weight of Integrin  $\beta 3$ : 125 kDa.

Positive Controls: human platelet extract: sc-363773 or MDA-MB-231 cell lysate: sc-2232.

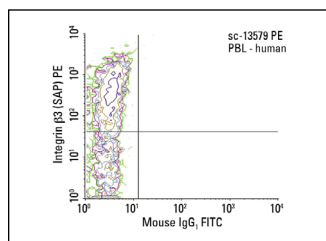
## STORAGE

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.

## DATA



Integrin  $\beta 3$  (SAP) PE: sc-13579 PE. FCM analysis of human peripheral blood leukocytes. Quadrant markers were set based on the isotype control, normal mouse IgG<sub>1</sub>-PE: sc-2866.

## SELECT PRODUCT CITATIONS

- Lim, J.Y., et al. 2005. Integrin expression and osteopontin regulation in human fetal osteoblastic cells mediated by substratum surface characteristics. *Tissue Eng.* 11: 12-29.
- Frangié, C., et al. 2006. Extracellular calpains increase tubular epithelial cell mobility. Implications for kidney repair after ischemia. *J. Biol. Chem.* 281: 26624-26632.
- Zheng, C., et al. 2009. Semaphorin3F down-regulates the expression of integrin  $\alpha_v\beta_3$  and sensitizes multicellular tumor spheroids to chemotherapy via the neuropilin-2 receptor *in vitro*. *Chemotherapy* 55: 344-352.
- Nishikawa, T., et al. 2010. Antiangiogenic effect of a selective 5-HT4 receptor agonist. *J. Surg. Res.* 159: 696-704.
- Wu, F., et al. 2011. Endogenous axon guiding chemorepulsant semaphorin-3F inhibits the growth and metastasis of colorectal carcinoma. *Clin. Cancer Res.* 17: 2702-2711.
- Mori, S., et al. 2015. Enhanced expression of integrin  $\alpha_v\beta_3$  induced by TGF- $\beta$  is required for the enhancing effect of fibroblast growth factor 1 (FGF1) in TGF- $\beta$ -induced epithelial-mesenchymal transition (EMT) in mammary epithelial cells. *PLoS ONE* 10: e0137486.

## PROTOCOLS

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

## CONJUGATES

See **Integrin  $\beta 3$  (D-11): sc-365679** for Integrin  $\beta 3$  antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.