

Integrin $\beta 3$ (Y2/51): sc-20058

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.

CHROMOSOMAL LOCATION

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

SOURCE

Integrin $\beta 3$ (Y2/51) is a mouse monoclonal antibody raised against PHA-stimulated human mononuclear cells.

PRODUCT

Each vial contains 200 μg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin $\beta 3$ (Y2/51) is available conjugated to agarose (sc-20058 AC), 500 $\mu\text{g}/0.25$ ml agarose in 1 ml, for IP; to HRP (sc-20058 HRP), 200 $\mu\text{g}/\text{ml}$, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-20058 PE), fluorescein (sc-20058 FITC), Alexa Fluor[®] 488 (sc-20058 AF488), Alexa Fluor[®] 546 (sc-20058 AF546), Alexa Fluor[®] 594 (sc-20058 AF594) or Alexa Fluor[®] 647 (sc-20058 AF647), 200 $\mu\text{g}/\text{ml}$, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-20058 AF680) or Alexa Fluor[®] 790 (sc-20058 AF790), 200 $\mu\text{g}/\text{ml}$, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Integrin $\beta 3$ (Y2/51) is recommended for detection of Integrin $\beta 3$ of mouse, rat and human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μg per 1×10^6 cells).

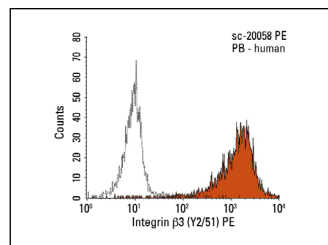
Suitable for use as control antibody for Integrin $\beta 3$ siRNA (h): sc-29375, Integrin $\beta 3$ siRNA (m): sc-35677, Integrin $\beta 3$ siRNA (r): sc-63292, Integrin $\beta 3$ shRNA Plasmid (h): sc-29375-SH, Integrin $\beta 3$ shRNA Plasmid (m): sc-35677-SH, Integrin $\beta 3$ shRNA Plasmid (r): 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.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 2) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Integrin $\beta 3$ (Y2/51) PE: sc-20058 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG₁-PE: sc-2866.

SELECT PRODUCT CITATIONS

- Brune, T., et al. 2007. *In vitro* comparison of human fibroblasts from intact and ruptured ACL for use in tissue engineering. *Eur. Cell Mater.* 14: 78-90.
- Hsiao, J.R., et al. 2010. Cyclic $\alpha\text{v}\beta 6$ -targeting peptide selected from biopanning with clinical potential for head and neck squamous cell carcinoma. *Head Neck* 32: 160-172.
- Serpa, J., et al. 2010. Butyrate-rich colonic microenvironment is a relevant selection factor for metabolically adapted tumor cells. *J. Biol. Chem.* 285: 39211-39223.
- Caiado, F., et al. 2011. The role of fibrin E on the modulation of endothelial progenitors adhesion, differentiation and angiogenic growth factor production and the promotion of wound healing. *Biomaterials* 32: 7096-7105.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.