

Integrin $\beta 3$ (MHF4): sc-53351

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.

REFERENCES

1. Davies, J., et al. 1989. The osteoclast functional antigen, implicated in the regulation of bone resorption, is biochemically related to the vitronectin receptor. *J. Cell Biol.* 109: 1817-1826.
2. Kieffer, N. and Phillips, D.R. 1991. Platelet membrane glycoproteins: functions in cellular interactions. *Annu. Rev. Cell Biol.* 6: 329-357.

CHROMOSOMAL LOCATION

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

SOURCE

Integrin $\beta 3$ (MHF4) is a mouse monoclonal antibody raised against bone cell suspension of rat origin.

PRODUCT

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

Integrin $\beta 3$ (MHF4) is available conjugated to either phycoerythrin (sc-53351 PE) or fluorescein (sc-53351 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

Integrin $\beta 3$ (MHF4) is recommended for detection of Integrin $\beta 3$ of mouse, rat and human origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1×10^6 cells).

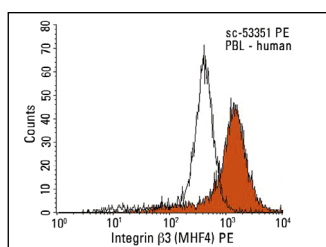
Suitable for use as control antibody for Integrin $\beta 3$ siRNA (h): sc-29375, Integrin $\beta 3$ siRNA (m): sc-35677, Integrin $\beta 3$ siRNA (r): sc-63292, Integrin $\beta 3$ shRNA Plasmid (h): sc-29375-SH, Integrin $\beta 3$ shRNA Plasmid (m): sc-35677-SH, Integrin $\beta 3$ shRNA Plasmid (r): 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) 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.

DATA



Integrin $\beta 3$ (MHF4): sc-53351. Indirect FCM analysis of human peripheral blood leukocytes stained with Integrin $\beta 3$ (MHF4), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG₁: sc-3877.

SELECT PRODUCT CITATIONS

1. Biyiksiz, P.C., et al. 2011. Is sildenafil citrate affect endometrial receptivity? An immunohistochemical study. *Gynecol. Endocrinol.* 27: 767-774.
2. Wirtz, M.R., et al. 2019. Washing or filtering of blood products does not improve outcome in a rat model of trauma and multiple transfusion. *Transfusion* 59: 134-145.
3. Osmani, N., et al. 2019. Metastatic tumor cells exploit their adhesion repertoire to counteract shear forces during intravascular arrest. *Cell Rep.* 28: 2491-2500.e5.

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.



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.