

Integrin α M (MEM-174): sc-51657

BACKGROUND

Integrin α M (complement component receptor 3 α chain, CD11b (p170), macrophage antigen α polypeptide, cell surface glycoprotein Mac-1 α subunit, CR3 α chain, MAC1A, MO1A, ITGAM) is a 165 kDa cell adhesion molecule that acts as a receptor for cell surface ligands such as intracellular adhesion molecules (ICAMs) or soluble ligands. Integrins are heterodimeric proteins that contain an α chain and β chain. Integrin α M combines with the Integrin β 2 to form a leukocyte-specific integrin referred to as macrophage receptor 1 (Mac-1), or inactivated-C3b (iC3b) receptor 3 (CR3). Integrin α M/ β 2 is important in the adherence of neutrophils and monocytes to stimulated endothelium, and also in the phagocytosis of complement coated particles.

REFERENCES

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3. Nueda, A., et al. 1995. Hematopoietic cell-type-dependent regulation of leukocyte integrin functional activity: CD11b and CD11c expression inhibits LFA-1-dependent aggregation of differentiated U937 cells. *Cell. Immunol.* 164: 163-169.
4. Walzog, B., et al. 1995. The leukocyte integrin Mac-1 (CD11b/CD18) contributes to binding of human granulocytes to collagen. *Exp. Cell Res.* 218: 28-38.
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6. Schlecht, G., et al. 2004. Antigen targeting to CD11b allows efficient presentation of CD4⁺ and CD8⁺ T cell epitopes and *in vivo* Th1-polarized T cell priming. *J. Immunol.* 173: 6089-6097.
7. Lau, D., et al. 2005. Myeloperoxidase mediates neutrophil activation by association with CD11b/CD18 integrins. *Proc. Natl. Acad. Sci. USA* 102: 431-436.
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9. Hieronymus, T., et al. 2005. Progressive and controlled development of mouse dendritic cells from Flt3⁺CD11b⁺ progenitors *in vitro*. *J. Immunol.* 174: 2552-2562.

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 for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: ITGAM (human) mapping to 16p11.2.

SOURCE

Integrin α M (MEM-174) is a mouse monoclonal antibody raised against human granulocytes.

PRODUCT

Each vial contains 100 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin α M (MEM-174) is available conjugated either phycoerythrin (sc-51657 PE, 100 tests in 2 ml) or fluorescein (sc-51657 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

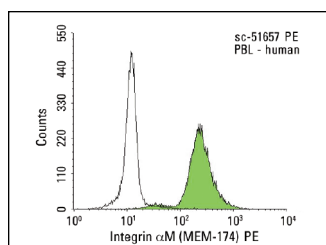
APPLICATIONS

Integrin α M (MEM-174) is recommended for detection of Integrin α M of human origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for Integrin α M siRNA (h): sc-37261, Integrin α M shRNA Plasmid (h): sc-37261-SH and Integrin α M shRNA (h) Lentiviral Particles: sc-37261-V.

Molecular Weight of Integrin α M: 170 kDa.

DATA



Integrin α M (MEM-174): sc-51657. Indirect FCM analysis of human peripheral blood leukocytes stained with Integrin α M (MEM-174), followed by FITC-conjugated goat anti-mouse IgG_{2a}: sc-2079. Black line histogram represents the isotype control, normal mouse IgG_{2a}: sc-3878.

RESEARCH USE

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

CONJUGATES

See **Integrin α M (2LPM19c): sc-20050** for Integrin α M antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.