

Integrin α M (CBRM1/5): sc-23934

BACKGROUND

Integrin α M (also designated complement component receptor-3 α , CD11b (p170), macrophage antigen α polypeptide, cell surface glycoprotein Mac-1 α subunit, MAC1A, MO1A and ITGAM) is a 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

1. Nathan, C., et al. 1990. Tumor necrosis factor and CD11/CD18 (β 2) integrins act synergistically to lower cAMP in human neutrophils. *J. Cell Biol.* 111: 2171-2181.
2. Li, R., et al. 1995. A peptide derived from the intercellular adhesion molecule-2 regulates the avidity of the leukocyte integrins CD11b/CD18 and CD11c/CD18. *J. Cell Biol.* 129: 1143-1153.
3. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Integrin α M (CBRM1/5) is a mouse monoclonal antibody raised against immunoaffinity-purified Integrin α M (Mac-1) of human 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. Also available azide-free for blocking Integrin α M dependent adhesion to fibrinogen and ICAM-1 and inhibits chemoattractant-stimulated adhesion of eosinophils to ICAM-1, sc-23934 L, 200 μ g/0.1 ml.

Integrin α M (CBRM1/5) is available conjugated to either phycoerythrin (sc-23934 PE) or fluorescein (sc-23934 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

Integrin α M (CBRM1/5) 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

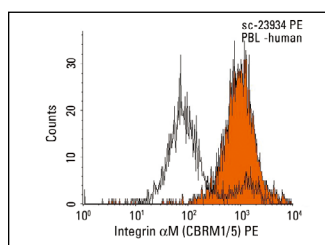
Suitable for use as control antibody for Integrin α M siRNA (h): sc-37261, Integrin α M shRNA Plasmid (h): sc-37261-SH and Integrin α M shRNA (h) Lentiviral Particles: sc-37261-V.

Molecular Weight of Integrin α M: 170 kDa.

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 α M (CBRM 1/5) PE: sc-23934 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG₁-PE: sc-2866.

SELECT PRODUCT CITATIONS

1. Yosef, N. and Ubogu, E.E. 2012. α M β 2-Integrin-intercellular adhesion molecule-1 interactions drive the flow-dependent trafficking of Guillain-Barre syndrome patient derived mononuclear leukocytes at the blood-nerve barrier *in vitro*. *J. Cell. Physiol.* 227: 3857-3875.
2. Totani, L., et al. 2016. Roflumilast inhibits leukocyte-platelet interactions and prevents the prothrombotic functions of polymorphonuclear leukocytes and monocytes. *J. Thromb. Haemost.* 14: 191-204.
3. Wang, X., et al. 2016. Neutrophil necroptosis is triggered by ligation of adhesion molecules following GM-CSF priming. *J. Immunol.* 197: 4090-4100.
4. Saed, G.M., et al. 2018. Novel expression of CD11b in epithelial ovarian cancer: potential therapeutic target. *Gynecol. Oncol.* 148: 567-575.
5. Golay, J., et al. 2019. Human neutrophils express low levels of Fc γ RIIIA, which plays a role in PMN activation. *Blood* 133: 1395-1405.

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.



See **Integrin α M (2LPM19c): sc-20050** for Integrin α M antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.