

# Integrin $\alpha$ M (CBRM1/5): sc-23934

## BACKGROUND

Integrin  $\alpha$ M (also designated complement component receptor-3  $\alpha$ , CD11b (p170), macrophage antigen  $\alpha$  polypeptide, cell surface glycoprotein Mac-1  $\alpha$  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  $\alpha$  chain and  $\beta$  chain. Integrin  $\alpha$ M combines with the Integrin  $\beta$ 2 to form a leukocyte-specific integrin, referred to as macrophage receptor 1 (Mac-1), or inactivated-C3b (iC3b) receptor 3 (CR3). Integrin  $\alpha$ M/ $\beta$ 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 ( $\beta$ 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  $\alpha$ M (CBRM1/5) is a mouse monoclonal antibody raised against immunoaffinity-purified Integrin  $\alpha$ M (Mac-1) of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $\gamma$  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  $\alpha$ M dependent adhesion to fibrinogen and ICAM-1 and inhibits chemoattractant-stimulated adhesion of eosinophils to ICAM-1, sc-23934 L, 200  $\mu$ g/0.1 ml.

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

## APPLICATIONS

Integrin  $\alpha$ M (CBRM1/5) is recommended for detection of Integrin  $\alpha$ M of human origin by immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

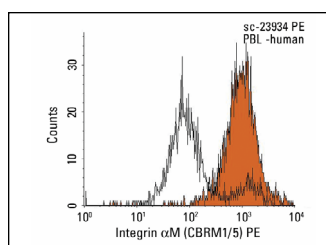
Suitable for use as control antibody for Integrin  $\alpha$ M siRNA (h): sc-37261, Integrin  $\alpha$ M shRNA Plasmid (h): sc-37261-SH and Integrin  $\alpha$ M shRNA (h) Lentiviral Particles: sc-37261-V.

Molecular Weight of Integrin  $\alpha$ 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Integrin  $\alpha$ M (CBRM 1/5) PE: sc-23934 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG $\gamma$ -PE: sc-2866.

## SELECT PRODUCT CITATIONS

1. Yosef, N. and Ubogu, E.E. 2012.  $\alpha$ M $\beta$ 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 $\gamma$ 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  $\alpha$ M (2LPM19c): sc-20050** for Integrin  $\alpha$ M antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.