

Integrin α M (1B6e): sc-21744

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

- 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.
- 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.
- 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.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: Itgam (mouse) mapping to 7 F3.

SOURCE

Integrin α M (1B6e) is a mouse monoclonal antibody raised against rat neutrophils.

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 α M (1B6e) is available conjugated to agarose (sc-21744 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-21744 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-21744 PE), fluorescein (sc-21744 FITC), Alexa Fluor® 488 (sc-21744 AF488), Alexa Fluor® 546 (sc-21744 AF546), Alexa Fluor® 594 (sc-21744 AF594) or Alexa Fluor® 647 (sc-21744 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-21744 AF680) or Alexa Fluor® 790 (sc-21744 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Integrin α M (1B6e) is recommended for detection of Integrin α M of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (m): sc-35693, Integrin α M shRNA Plasmid (m): sc-35693-SH and Integrin α M shRNA (m) Lentiviral Particles: sc-35693-V.

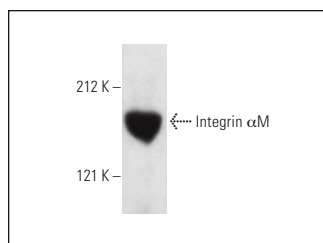
Molecular Weight of Integrin α M: 170 kDa.

Positive Controls: rat peripheral blood whole cell lysate.

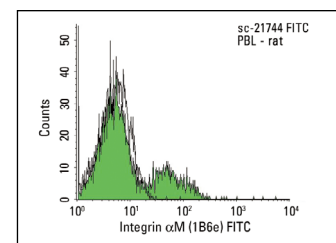
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Integrin α M (1B6e): sc-21744. Western blot analysis of Integrin α M expression in rat peripheral blood cell lysate.



Integrin α M (1B6e) FITC: sc-21744 FITC. FCM analysis of rat peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG₁-FITC, sc-2855.

SELECT PRODUCT CITATIONS

- Du, L., et al. 2012. Actin filament reorganization is a key step in lung inflammation induced by systemic inflammatory response syndrome. *Am. J. Respir. Cell Mol. Biol.* 47: 597-603.
- Hein, Z.M., et al. 2020. The induction of Neuron-Glia2 (NG2) expressing cells in methamphetamine toxicity-induced neuroinflammation in rat brain are averted by melatonin. *J. Neuroimmunol.* 344: 577232.
- Zhang, Q., et al. 2023. *Klebsiella pneumoniae* induces inflammatory bowel disease through caspase-11-mediated IL-18 in the gut epithelial cells. *Cell. Mol. Gastroenterol. Hepatol.* 15: 613-632.

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.