## SANTA CRUZ BIOTECHNOLOGY, INC.

# Integrin α*M* (H-61): sc-28664



## BACKGROUND

Integrin  $\alpha$ M, also designated complement component receptor 3  $\alpha$  chain, CD11b (p170), macrophage antigen  $\alpha$  polypeptide, cell surface glycoprotein Mac-1  $\alpha$  subunit, CR3  $\alpha$  chain, MAC1A, MO1A or 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 Integrin ß2 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, as well as in the phagocytosis of complement coated particles.

## CHROMOSOMAL LOCATION

Genetic locus: ITGAM (human) mapping to 16p11.2; Itgam (mouse) mapping to 7 F3.

## SOURCE

Integrin  $\alpha$ M (H-61) is a rabbit polyclonal antibody raised against amino acids 1050-1110 mapping within an extracellular domain of Integrin  $\alpha$ M of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **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 or our catalog for detailed protocols and support products.

## **APPLICATIONS**

Integrin  $\alpha M$  (H-61) is recommended for detection of Integrin  $\alpha M$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Integrin  $\alpha$ M (H-61) is also recommended for detection of Integrin  $\alpha M$  in additional species, including porcine.

Suitable for use as control antibody for Integrin  $\alpha$ M siRNA (h): sc-37261, Integrin  $\alpha$ M siRNA (m): sc-35693, Integrin  $\alpha$ M shRNA Plasmid (h): sc-37261-SH, Integrin  $\alpha$ M shRNA Plasmid (m): sc-35693-SH, Integrin  $\alpha$ M shRNA (h) Lentiviral Particles: sc-37261-V and Integrin  $\alpha$ M shRNA (m) Lentiviral Particles: sc-35693-V.

Molecular Weight of Integrin  $\alpha$ M: 170 kDa.

Positive Controls: mouse peripheral blood extract: sc-364245 and human PBL whole cell lysate.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat antirabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

#### DATA



Integrin aM expression in mouse peripheral blood lvsate

#### SELECT PRODUCT CITATIONS

Integrin aM expression in human PBL whole cell lysate

- 1. Dal Pra, I., et al. 2005. De novo engineering of reticular connective tissue in vivo by silk fibroin nonwoven materials. Biomaterials 26: 1987-1999.
- 2. Castro-Caldas, M., et al. 2008. GSTpi expression in MPTP-induced dopaminergic neurodegeneration of C57BL/6 mouse midbrain and striatum. J. Mol. Neurosci. 38: 114-127.
- 3. Fernández, R., et al. 2011. Lipopolysaccharide signaling in the carotid chemoreceptor pathway of rats with sepsis syndrome. Respir. Physiol. Neurobiol. 175: 336-348.
- 4. Hahm, E., et al. 2013. Extracellular protein disulfide isomerase regulates ligand-binding activity of  $\alpha$ MB2 integrin and neutrophil recruitment during vascular inflammation. Blood 121: 3789-3800.
- 5. Zhang, Q., et al. 2014. Interleukin-17 promotes development of castrationresistant prostate cancer potentially through creating an immunotolerant and pro-angiogenic tumor microenvironment. Prostate 74: 869-879.
- 6. Biswas, I., et al. 2015. Extracellular RNA facilitates hypoxia-induced leukocyte adhesion and infiltration in the lung through TLR3-IFN-y-STAT1 signaling pathway. Eur. J. Immunol. 45: 3158-73.
- 7. Oliveira, V., et al. 2015. Diets containing  $\alpha$ -Linolenic ( $\omega$ 3) or Oleic ( $\omega$ 9) fatty acids rescues obese mice from Insulin resistance. Endocrinology 156: 4033-4046.

## **RESEARCH USE**

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

Integrin aM (H-61): sc-28664. Western blot analysis of