

## Mouse Anti-Human ITGAM Monoclonal Antibody

### Mouse, Monoclonal (ITGAM)

Cat. No. DMAB2506MH

Lot. No. (See product label)

#### PRODUCT INFORMATION

**Antigen Description:** This gene encodes the integrin alpha M chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form a leukocyte-specific integrin referred to as macrophage receptor 1 ('Mac-1'), or inactivated-C3b (iC3b) receptor 3 ('CR3'). The alpha M beta 2 integrin is important in the adherence of neutrophils and monocytes to stimulated endothelium, and also in the phagocytosis of complement coated particles. Multiple transcript variants encoding different isoforms have been found for this gene.

**Immunogen:** Synovial cells and human monocytes

**Isotype:** IgG<sub>1</sub>

**Specificity:** Recognizes the alpha subunit of the CD11b/CD18 complex, an alpha/Beta heterodimeric surface glycoprotein on human leukocytes (Mr 165-170 kDa). The CD11b/CD18 antigen belongs to the beta2 integrin family. Other names include Mac-1, Cr3, MO-1 and C3bi receptor. The CD11b molecule functions as a receptor for C3bi complement, clotting factor X, fibrinogen and ICAM-1. The CD11b antigen is expressed on approximately 30% of human peripheral blood lymphocytes, most natural killer lymphocytes, circulating monocytes, granulocytes, a subset of T-cells and subsets of macrophages.

**Clone:** A45

**Host animal:** Mouse.

**Format:** FITC, Liquid

**Purification:** IgG fraction covalently conjugated to anti-human CD11b and purified chromatographically to remove unconjugated dye and antibody, to achieve an optimal a fluorochrome/protein (F/P) molar ratio. Fluorescein has a maximum absorbance at 492nm with an emission maximum at 518nm.

**Application:** May be used to study lymphocytes subsets in flow cytometry and in cell adhesion research (Mac-1). May be used to stain tissue sections which have been acetone fixed and frozen. We recommend using 1µg to stain 1.0 x 10<sup>6</sup> cells in flow cytometric applications. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded. Centrifuge before opening to ensure complete recovery of vial contents.

#### PACKAGING

**Concentration:** 100µg/ml (OD280nm)

**Buffer:** 0.01M PBS, pH7.4 containing 1% BSA

**Preservative:** 0.09% Sodium azide

**Storage:** Store at 2-8°C.

**Warning:** This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1-1.0%. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

#### ANTIGEN GENE INFORMATION

**Gene Name:** [ITGAM integrin, alpha M \(complement component 3 receptor 3 subunit\) \[ Homo sapiens \]](#)

**Official Symbol:** ITGAM

**Synonyms:** CR3A; MO1A; CD11B; MAC-1; MAC1A; SLEB 6; MGC117044; ITGAM; integrin alpha-M; CR-3 alpha chain; antigen CD11b (p170); leukocyte adhesion receptor MO1; C D11 antigen-like family member B; macrophage antigen alp- hapolypeptide; cell surface glycoprotein MAC-1 subunit alp- ha; neutrophil adherence receptor alpha-M subunit

**GeneID:** [3684](#)

**mRNA Refseq:** [NM\\_000632](#)

**Protein Refseq:** [NP\\_000623](#)

**MIM:** [120980](#)

**UniProt ID:** P11215

**Chromosome Location:** 16p11.2

**Pathway:** Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Cell adhesion molecules (CAMs), organism-specific biosystem; Cell adhesion molecules (CAMs), conserved biosystem; Focal Adhesion, organism-specific biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; Integrin cell surface interactions, organism-specific biosystem; Integrin-mediated cell adhesion, organism-specific biosystem; Leishmaniasis, organism-specific biosystem; Leishmaniasis, conserved biosystem; Leukocyte transendothelial migration, organism-specific biosystem; Phagosome, conserved biosystem; Regulation of actin cytoskeleton, organism-specific biosystem; Regulation of actin cytoskeleton, conserved biosystem; Staphylococcus aureus infection, organism-specific biosystem; Staphylococcus aureus infection, conserved biosystem; Tuberculosis, organism-specific biosystem; Tuberculosis, conserved biosystem

**Function:** glycoprotein binding; protein binding; receptor activity activity

#### REFERENCES

1. Myones, B.L., et al., (1988), *J. Clin. Invest.*, **82**:640.
2. Malhotra, V. et al (1986), *Eur. J. Immunol.*, **16**:1117.