

# Anti-CD11b / MAC-1 (Microglial Marker) Antibody

Mouse Monoclonal Antibody

Catalog # AH13327

## Product Information

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<b>Application</b>	IF, FC
<b>Primary Accession</b>	<a href="#">P11215</a>
<b>Other Accession</b>	<a href="#">172631</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Mouse / IgG1, kappa
<b>Clone Names</b>	ITGAM/271
<b>Calculated MW</b>	127179

## Additional Information

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<b>Gene ID</b>	3684
<b>Other Names</b>	CD11 antigen-like family member B; CD11b/CD18; CD49d; Cell surface glycoprotein MAC-1 subunit alpha; Complement Component Receptor 3 Alpha; CR3 Alpha Chain (CR3A); Integrin alpha-M; Integrin beta 2 alpha subunit; ITGAM; Leukocyte adhesion receptor MO1; Ly-40; Mac-1a; MAC1; Mac1, alpha subunit; MAC1A; Macrophage antigen alpha polypeptide; MO1A; Neutrophil adherence receptor alpha M subunit
<b>Application Note</b>	Flow Cytometry (0.5-1ug/million cells in 0.1ml); Immunofluorescence (0.5-1ug/ml); Optimal dilution for a specific application should be determined.
<b>Format</b>	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage</b>	Store at 2 to 8°C. Antibody is stable for 24 months.
<b>Precautions</b>	Anti-CD11b / MAC-1 (Microglial Marker) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ITGAM ( <a href="#">HGNC:6149</a> )
<b>Synonyms</b>	CD11B, CR3A
<b>Function</b>	Integrin ITGAM/ITGB2 is implicated in various adhesive interactions of monocytes, macrophages and granulocytes as well as in mediating the uptake

of complement-coated particles and pathogens (PubMed:[20008295](#), PubMed:[9558116](#)). It is identical with CR-3, the receptor for the iC3b fragment of the third complement component. It probably recognizes the R-G-D peptide in C3b. Integrin ITGAM/ITGB2 is also a receptor for fibrinogen and factor X. It recognizes P1 and P2 peptides of fibrinogen gamma chain. Regulates neutrophil migration (PubMed:[28807980](#)). In association with beta subunit ITGB2/CD18, required for CD177-PRTN3-mediated activation of TNF primed neutrophils (PubMed:[21193407](#)). Integrin ITGAM/ITGB2 is also a receptor for ICAM1 ligand ensuring adhesion between stimulated neutrophils and stimulated endothelial cells (PubMed:[1980124](#)). May regulate phagocytosis-induced apoptosis in extravasated neutrophils (By similarity). May play a role in mast cell development (By similarity). Required with TYROBP/DAP12 in microglia to control production of microglial superoxide ions which promote the neuronal apoptosis that occurs during brain development (By similarity).

**Cellular Location**

Cell membrane; Single-pass type I membrane protein. Membrane raft; Single-pass type I membrane protein

**Tissue Location**

Predominantly expressed in monocytes and granulocytes (PubMed:1346576). Expressed in neutrophils (at protein level) (PubMed:21193407).

**Background**

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CD11b 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 a chain and b 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. The protein CD11b has been implicated in the various adhesion-related interactions of cells such as monocytes, macrophages, natural killer (NK) cells, and granulocytes. It is part of a heterodimer that consists of CD11b and CD18. It also modulates the uptake of complement-coated particles within the cell. It is commonly used as a microglial marker in tissues derived from the nervous system.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.