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	Monoclonal Antibody to CD11b - PE
Alternate names:	CD11 antigen-like family member B, CR-3 alpha chain, CR3A, Cell surface glycoprotein MAC-1 subunit alpha, ITGAM, Integrin alpha-M, Leukocyte adhesion receptor MO1, MAC1, Neutrophil adherence receptor
Catalog No.:	SM014RT
Quantity:	25 Tests
Background:	CD11b (integrin aM subunit) is a 165 kDa type I transmembrane glycoprotein that non-covalently associates with integrin b2 subunit (CD18); expression of the CD11b chain on the cell surface requires the presence of the CD18 antigen. CD11b/CD18 integrin (Mac-1, CR3) is highly expressed on NK cells, neutrophils, monocytes and less on macrophages. The expression of CD11b increases during monocyte maturation and expression levels vary on tissue macrophages.
	CD11b/CD18 integrin is implicated in various adhesive interactions of monocytes, macrophages and granulocytes, facilitating their diapedesis, as well as it mediates the uptake of complement coated particles, serving as a receptor for the iC3b fragment of the third complement component.
	Peritoneal macrophages are reported to express higher levels of CD11b than splenic macrophages.
Uniprot ID:	<u>P05555</u>
NCBI:	<u>10090</u>
Host / Isotype:	Rat / IgG2b
Clone:	M1/70.15
Immunogen:	T cell enriched splenocytes from B10 mice. Spleen cells from an immunised DA rat were fused with cells of the mouse NS1/1.Ag4.1 myeloma cell line.
Format:	 State: Lyophilized purified IgG fraction. Purification: Affinity Chromatography on Protein G Buffer System: PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. Label: PE – R. Phycoerythrin (RPE) Reconstitution: Restore with distilled water.
Applications:	Flow Cytometry: Use 10 µl of neat-1/10 diluted antibody to label 10e6 cells in 100µl. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

For research and in vitro use only. Not for diagnostic or therapeutic work. Material Safety Datasheets are available at www.acris-antibodies.com or on request.

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Specificity:	This antibody recognises the murine CD11b cell surface antigen (also known as the alpha M integrin chain or MAC-1). Clone M1/70.15 has been reported to block iC3b binding to its receptor. SM014A is recommended for this purpose. Clone M1/70.15 has been reported to as being suitable for use on PLP fixed paraffin embedded tissue but has not been tested for use on formalin fixed tissue. Species: Human, Mouse and Rabbit. Other species not tested.
Storage:	Prior to and following reconstitution store the antibody undiluted at 2-8°C. DO NOT FREEZE! This product is photosensitive and should be protected from light. Shelf life: one year from despatch.
General References:	 Springer, T.et al. (1978) Monoclonal xenogeneic antibodies to murine cell surface antigens:identification of novel leukocyte differentiation antigens. Eur. J. Immunol. 8:539-551. Springer, T. et al. (1979) Mac-1: a macrophage differentiation antigen identified by a monoclonal antibody. Eur. J. Immunol. 9:301-306. Beller, D.I. et al. (1982) Anti Mac-1 selectively inhibits the human type three complement receptor. J. Exp. Med. 156:1000-1009. Whiteland, J.L. et al. (1995) Immunohistochemical detection of T cell subsets and other leukocytes in paraffinembedded rat and mouse tissues with monoclonal antibodies. J. Histochem. Cytochem. 43:313-320. Klingel, K. et al. (2003) Beta2-microglobulin-associated regulation of interferon-gamma and virus-specific immunoglobulin G confer resistance against the development of chronic coxsackievirus myocarditis. Am. J. Pathol. 162 (5):1709-1720. Welt, F.G. et al. (2000) Neutrophil, not macrophage, infiltration precedes neointimal

thickening in ballooninjured arteries. Arterioscler Thromb Vasc Biol. 20: 2553-2558.

Pictures:



Staining of total mouse peritoneal exudate cells demonstrating labelling of Macrophages with Rat anti Mouse CD11b-RPE