

Monoclonal Antibody to CD68 - FITC

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| Alternate names: | Gp110, Macrophage marker, Macrosialin |
| Catalog No.: | SM1550FS |
| Quantity: | 50 µg |
| Concentration: | 0.1 mg/ml |
| Background: | <p>The CD68 antigen is a 37kD transmembrane protein that is post-translationally glycosylated to give a protein of 87-115kD. CD68 is specifically expressed by tissue macrophages, Langerhans cells and at low levels by dendritic cells. It could play a role in phagocytic activities of tissue macrophages, both in intracellular lysosomal metabolism and extracellular cell-cell and cell-pathogen interactions. It binds to tissue- and organ-specific lectins or selectins, allowing homing of macrophage subsets to particular sites. Rapid recirculation of CD68 from endosomes and lysosomes to the plasma membrane may allow macrophages to crawl over selectin bearing substrates or other cells. Macrosialin is the murine homologue of the human macrophage glycoprotein CD68, both are members of the lysosomal-associated membrane protein (lamp) family which are located predominantly within the cells and can be detected by flow cytometry using cell permeabilisation.</p> |
| Uniprot ID: | P31996 |
| NCBI: | NP_033983.1 |
| GeneID: | 12514 |
| Host / Isotype: | Rat / IgG2a |
| Clone: | FA-11 |
| Format: | <p>State: Liquid purified IgG fraction Purification: Affinity chromatography on Protein G Buffer System: PBS, pH 7.4 Preservatives: 0.09% Sodium Azide Stabilizers: 1% BSA Label: FITC – Fluorescein Isothiocyanate Isomer 1</p> |
| Applications: | <p>Flow Cytometry: Membrane permeabilisation is required for this application; 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.</p> |
| Specificity: | <p>This antibody does detect surface macrosialin at low levels in resident mouse peritoneal macrophages which can be enhanced with thioglycollate stimulation. Species: Mouse. Other species not tested.</p> |

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.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

- Storage:** Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. This product is photosensitive and should be protected from light. Shelf life: one year from despatch.
- Product Citation:** Unconjugated antibody is cited in:
1. Alun C. Kirby, Lynette Beattie, Asher Maroof, Nico van Rooijen, and Paul M. Kaye SIGNR1-Negative Red Pulp Macrophages Protect against Acute Streptococcal Sepsis after Leishmania donovani-Induced Loss of Marginal Zone Macrophages; *Am. J. Pathol.*, Sep 2009; 175: 1107 - 1115.
- General References:**
1. Ramprasad, M.P. et al. (1996) Cell surface expression of mouse macrosialin and human CD68 and their role as macrophage receptors for oxidized low density lipoprotein. *Proc. Natl. Acad. Sci.* 93: 14833-14838.
 2. Rabinowitz, S.S. & Gordon, S. (1991) Macrosialin, a macrophage-restricted membrane sialoprotein differentially glycosylated in response to inflammatory stimuli. *J. Exp. Med.* 174: 827-836.
 3. Da Silva, R.P & Gordon, S. (1999) Phagocytosis stimulates alternative glycosylation of macrosialin (mouse CD68), a macrophage-specific endosomal protein. *Biochem. J.* 338: 687-694.
 4. Song, L. et al. (2011) Deletion of the murine scavenger receptor CD68. *J Lipid Res.* 52: 1542-50.
 5. Daldrup-Link, H.E. et al. (2011) MR Imaging of Tumor Associated Macrophages with Clinically-Applicable Iron Oxide Nanoparticles. *Clin Cancer Res.* Jul 26. [Epub ahead of print].
 6. Lazarini, F. et al. (2012) Early Activation of Microglia Triggers Long-Lasting Impairment of Adult Neurogenesis in the Olfactory Bulb. *J Neurosci* 32: 3652-64.

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