

## FITC anti-mouse CD68 Antibody

|                          |   |
|--------------------------|---|
| <b>Catalog# / Size</b>   | 137005 / 25 µg<br>137006 / 100 µg   |
| <b>Clone</b>             | FA-11   |
| <b>Regulatory Status</b> | RUO   |
| <b>Other Names</b>       | Macrosialin   |
| <b>Isotype</b>           | Rat IgG2a   |
| <b>Description</b>       | Mouse CD68, also known as macrosialin, is an 85-115 kD member of the lysosomal-associated membrane protein (LAMP) family. It is a heavily glycosylated and predominantly intracellular protein, mainly in late endosomes. Macrosialin is the murine homolog to the human macrophage glycoprotein CD68. It is expressed on tissue macrophages, Langerhans cells and at low levels on dendritic cells. Lamp proteins may have functions relating to cell-cell interaction or cell-ligand interaction. The biological function of CD68 is not completely understood. |

### Product Details

|                               |   |
|-------------------------------|---|
| <b>Verified Reactivity</b>    | Mouse   |
| <b>Antibody Type</b>          | Monoclonal  |
| <b>Host Species</b>           | Rat   |
| <b>Immunogen</b>              | Purified Con A receptor glycoproteins from the P815 cell line   |
| <b>Formulation</b>            | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.   |
| <b>Preparation</b>            | The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions.  |
| <b>Concentration</b>          | 0.5 mg/ml   |
| <b>Storage &amp; Handling</b> | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>   |
| <b>Application</b>            | <a href="#">ICFC - Quality tested</a><br><a href="#">FC - Verified</a>  |
| <b>Recommended Usage</b>      | Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.  |
| <b>Excitation Laser</b>       | Blue Laser (488 nm)   |
| <b>Application Notes</b>      | Additional reported (for relevant formats) applications include: immunoprecipitation <sup>1,2</sup> , Western Blot <sup>1,2</sup> , immunohistochemical staining of frozen sections <sup>2</sup> and paraformaldehyde-fixed paraffin-embedded sections <sup>3</sup> , and spatial biology (IBEX) <sup>9,10</sup> .  |
| <b>Application References</b> | <ol style="list-style-type: none"> <li>1. Silva RP, <i>et al.</i> 1999. <i>Biochem. J.</i> 338:687. (IP, WB)</li> <li>2. Rabinowitz SS, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:827. (IP, WB, IHC)</li> <li>3. Wu J, <i>et al.</i> 2008. <i>P. Natl. Acad. Sci. USA</i> 105:16934. (IHC)</li> <li>4. Kayama H, <i>et al.</i> 2012. <i>PNAS.</i> 109:5010. <a href="#">PubMed</a></li> <li>5. Park S, <i>et al.</i> 2013. <i>Biomaterials.</i> 34:598. <a href="#">PubMed</a></li> <li>6. Guiducci C, <i>et al.</i> 2013. <i>J Exp Med.</i> 210:2903. <a href="#">PubMed</a></li> <li>7. McKinstry SU, <i>et al.</i> 2014. <i>J Neurosci.</i> 34:9455. <a href="#">PubMed</a></li> <li>8. Li X, <i>et al.</i> 2015. <i>J Am Heart Assoc.</i> 6:4. <a href="#">PubMed</a></li> <li>9. Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci U S A.</i> 117:33455-65. (SB) <a href="#">PubMed</a></li> <li>10. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) <a href="#">PubMed</a></li> </ol> |
| <b>Product Citations</b>      | <ol style="list-style-type: none"> <li>1. Zhang Y, <i>et al.</i> 2018. <i>Sci Rep.</i> 8:5994. <a href="#">PubMed</a></li> </ol>  |

2. Xu M, *et al.* 2021. *Front Physiol.* 12:700338. [PubMed](#)
3. Tao HC, *et al.* 2020. *Front Immunol.* 11:148. [PubMed](#)
4. Xiao P, *et al.* 2019. *J Exp Med.* 216:337. [PubMed](#)
5. Piao HY, *et al.* 2022. *J Exp Clin Cancer Res.* 41:174. [PubMed](#)
6. Sroka I, *et al.* 2011. *Mol Cancer Res.* 1.290972222. [PubMed](#)
7. Nakatsuji M, *et al.* 2015. *PLoS Genet.* 11: e1005542. [PubMed](#)
8. Rowley J, *et al.* 2011. *Blood.* 118:e101. [PubMed](#)
9. Ishidome T *et al.* 2017. *EBioMedicine.* 22:89-99 . [PubMed](#)
10. Burns JC, *et al.* 2020. *eLife.* 9:00. [PubMed](#)
11. Liu P, *et al.* 2022. *iScience.* 25:103867. [PubMed](#)
12. Shan B, *et al.* 2020. *Nat Metab.* 1332:2. [PubMed](#)
13. Saikali P, *et al.* 2010. *J Immunol.* 185:5693. [PubMed](#)
14. Riedelberger M, *et al.* 2020. *Cell Host & Microbe.* 27(3):454-466. [PubMed](#)
15. Filbey KJ, *et al.* 2019. *Front Immunol.* 10:2375. [PubMed](#)
16. Bidet K, *et al.* 2019. *NPJ Vaccines.* 4:27. [PubMed](#)

**RRID** AB\_10575475 (BioLegend Cat. No. 137005)  
 AB\_10578412 (BioLegend Cat. No. 137006)

## Antigen Details

|                           |   |
|---------------------------|---|
| <b>Structure</b>          | A member of the lysosomal-associated membrane protein (lamp) family.  |
| <b>Distribution</b>       | Expressed on tissue macrophages, Langerhans cells, and at low levels on dendritic cells.  |
| <b>Function</b>           | Involved in cell-cell interaction or cell-ligand interaction, still not completely understood.  |
| <b>Cell Type</b>          | Antigen-presenting cells, Dendritic cells, Langerhans cells, Leukocytes, Macrophages  |
| <b>Biology Area</b>       | Cell Biology, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers  |
| <b>Molecular Family</b>   | Adhesion Molecules, CD Molecules, Innate Immune Signaling   |
| <b>Antigen References</b> | 1. Ramprasad MP, <i>et al.</i> 1996. <i>Proc. Natl. Acad. Sci. USA</i> 93:14833.<br>2. Smith MJ, <i>et al.</i> 1987. <i>J. Cell. Sci.</i> 87:113. |
| <b>Gene ID</b>            | <a href="#">12514</a>   |

## Related Protocols

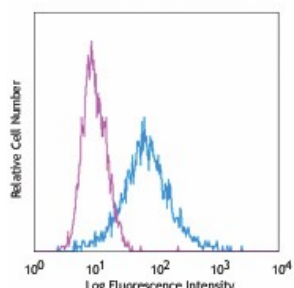
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-mouse CD68, Alexa Fluor® 647 anti-mouse CD68, FITC anti-mouse CD68, APC anti-mouse CD68, PerCP/Cyanine5.5 anti-mouse CD68, Alexa Fluor® 488 anti-mouse CD68, PE anti-mouse CD68, PE/Cyanine7 anti-mouse CD68, Brilliant Violet 421™ anti-mouse CD68, Alexa Fluor® 594 anti-mouse CD68, APC/Cyanine7 anti-mouse CD68, Brilliant Violet 605™ anti-mouse CD68, Brilliant Violet 711™ anti-mouse CD68, Alexa Fluor® 700 anti-mouse CD68, Pacific Blue™ anti-mouse CD68, TotalSeq™-A0560 anti-mouse CD68, TotalSeq™-C0560 anti-mouse CD68, Brilliant Violet 785™ anti-mouse CD68, TotalSeq™-B0560 anti-mouse CD68, Spark YG™ 570 anti-mouse CD68, APC/Fire™ 750 anti-mouse CD68

## Product Data



Thioglycolate-elicited Balb/c peritoneal macrophages intracellularly stained with FA-11 FITC

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587