

## PerCP/Cyanine5.5 anti-mouse CD68 Antibody

<b>Catalog# / Size</b>	137009 / 25 µg 137010 / 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 PerCP/Cyanine5.5 under optimal conditions.
<b>Concentration</b>	0.2 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> <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.  * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 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>Additional Product Notes</b>	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact <a href="#">Technical Service</a> if you have any questions.
<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> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

10. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

## Product Citations

1. Gruber R, *et al.* 2014. *J Neurosci.* 34:16320. [PubMed](#)
2. Philpott J, *et al.* 2022. *Immunohorizons.* 6:366. [PubMed](#)
3. Kokona D, *et al.* 2016. *Exp Eye Res.* S0014-4835(16)30499-7. [PubMed](#)
4. Oliver J, *et al.* 2012. *Am J Physiol Renal Physiol.* 302:F1362. [PubMed](#)
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6. Lu A, *et al.* 2020. *Sci Rep.* 10:7075. [PubMed](#)
7. Simonneau M, *et al.* 2018. *Oncotarget.* 9:36457. [PubMed](#)
8. Vaibhav K, *et al.* 2018. *J Exp Med.* 215:2636. [PubMed](#)
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12. Lowe PP, *et al.* 2020. *J Neuroinflammation.* 0.913888889. [PubMed](#)
13. Lam KC, *et al.* 2021. *Cell.* 184:5338. [PubMed](#)
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15. Komine S, *et al.* 2017. *Sci Rep.* 10.1038/s41598-017-12358-8. [PubMed](#)
16. Nasti A, *et al.* 2017. *Eur J Immunol.* 47:2163. [PubMed](#)

## RRID

AB\_10575455 (BioLegend Cat. No. 137009)  
AB\_2260046 (BioLegend Cat. No. 137010)

## Antigen Details

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<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. 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

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

[Intracellular Flow Cytometry Staining Protocol](#)

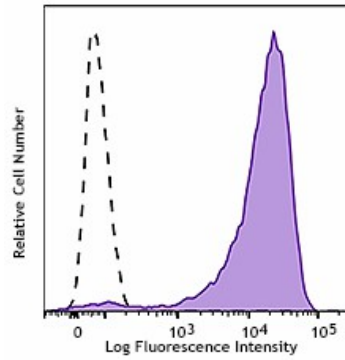
## Other Formats

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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

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Thioglycolate-elicited BALB/c macrophages were fixed, permeabilized, and intracellularly stained with CD68 (clone FA-11) PerCP/Cyanine5.5 (filled histogram) or rat IgG2a, ? PerCP/Cyanine5.5 isotype control (open histogram).

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