

## PE anti-mouse CD64 (FcγRI) Antibody

<b>Catalog# / Size</b>	139303 / 25 µg 139304 / 100 µg
<b>Clone</b>	X54-5/7.1
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	FcRI
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	CD64 is a 72 kD single chain type I glycoprotein also known as FcγRI and FcRI. CD64 is a member of the immunoglobulin superfamily and is expressed on monocytes/macrophages, dendritic cells, and mast cells. The expression can be upregulated by IFN-γ stimulation. CD64 binds IgG immune complex. It plays a role in antigen capture, phagocytosis of IgG/antigen complexes, and antibody-dependent cellular cytotoxicity (ADCC).

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	BALB/c mouse FcγRI-human IgG Fc fusion protein.
<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 PE 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="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤1.0 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) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	The X54-5/7.1 antibody reacts with mouse strains carrying CD64a and b alleles but not CD64d. X54-5/7.1 recognizes a conformational determinant formed between domains 2 and 3. Additional reported application (for relevant formats) include: immunoprecipitation <sup>1</sup> , and spatial biology (IBEX) <sup>5,6</sup> . Clone X54-5/7.1 is not found to be useful for Western blots <sup>1</sup> .
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Tan PS, <i>et al.</i> 2003. <i>J. Immunol.</i> 170:2549. (IP)</li> <li>2. Ingersoll MA, <i>et al.</i> 2010. <i>Blood</i> 115:e10. (FC)</li> <li>3. Ozeri E, <i>et al.</i> 2012. <i>J. Immunol.</i> 189:146. <a href="#">PubMed</a></li> <li>4. Richardson ML, <i>et al.</i> 2014. <i>PLoS Negl Trop Dis.</i> 8:2825. <a href="#">PubMed</a></li> <li>5. 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>6. Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) <a href="#">PubMed</a></li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Marchelletta RR, <i>et al.</i> 2021. <i>J Clin Invest.</i> 131:. <a href="#">PubMed</a></li> <li>2. Afkhami S, <i>et al.</i> 2022. <i>Cell.</i> 185:896. <a href="#">PubMed</a></li> <li>3. De Vries LCS, <i>et al.</i> 2021. <i>J Crohns Colitis.</i> 15:617. <a href="#">PubMed</a></li> <li>4. Parsons M, <i>et al.</i> 2014. <i>J Immunol.</i> 192:1361. <a href="#">PubMed</a></li> <li>5. Liu J, <i>et al.</i> 2017. <i>Mucosal Immunol.</i> 10.1038/mi.2016.139. <a href="#">PubMed</a></li> </ol>

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**RRID** AB\_10613467 (BioLegend Cat. No. 139303)  
 AB\_10612740 (BioLegend Cat. No. 139304)

## Antigen Details

<b>Structure</b>	Ig superfamily, type I glycoprotein, 72 kD
<b>Distribution</b>	Monocytes, macrophages, mast cells, dendritic cells
<b>Function</b>	Phagocytosis, ADCC
<b>Ligand/Receptor</b>	IgG
<b>Cell Type</b>	Dendritic cells, Macrophages, Mast cells, Monocytes
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	CD Molecules, Fc Receptors
<b>Gene ID</b>	<a href="#">14129</a>

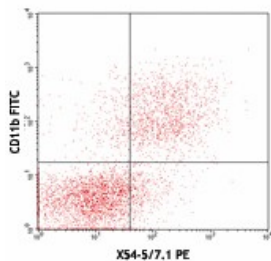
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

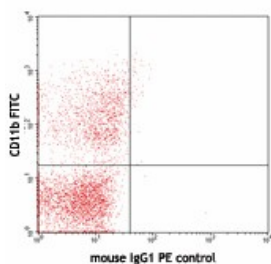
## Other Formats

Purified anti-mouse CD64 (FcγRI), PE anti-mouse CD64 (FcγRI), APC anti-mouse CD64 (FcγRI), PerCP/Cyanine5.5 anti-mouse CD64 (FcγRI), Brilliant Violet 421™ anti-mouse CD64 (FcγRI), Brilliant Violet 711™ anti-mouse CD64 (FcγRI), PE/Cyanine7 anti-mouse CD64 (FcγRI), FITC anti-mouse CD64 (FcγRI), Biotin anti-mouse CD64 (FcγRI), PE/Dazzle™ 594 anti-mouse CD64 (FcγRI), Alexa Fluor® 647 anti-mouse CD64 (FcγRI), Brilliant Violet 605™ anti-mouse CD64 (FcγRI), TotalSeq™-A0202 anti-mouse CD64 (FcγRI), TotalSeq™-C0202 anti-mouse CD64 (FcγRI), TotalSeq™-B0202 anti-mouse CD64 (FcγRI), PE/Cyanine5 anti-mouse CD64 (FcγRI), APC/Fire™ 750 anti-mouse CD64 (FcγRI)

## Product Data



C57BL/6 bone marrow cells stained with CD11b FITC and X54-5/7.1 PE



C57BL/6 bone marrow cells stained with CD11b FITC and mouse IgG1 PE isotype control

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