

## Brilliant Violet 421™ anti-human CD206 (MMR) Antibody

<b>Catalog# / Size</b>	321125 / 25 tests 321126 / 100 tests
<b>Clone</b>	15-2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	MMR (macrophage mannose receptor), MR (mannose receptor), CD206, MRC1
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	Macrophage mannose receptor (MMR) is a 162-175 kD type I membrane protein also known as CD206, MRC1, or mannose receptor (MR). It is a pattern recognition receptor (PRR) that belongs to C-type lectin superfamily. MMR is expressed on macrophages, dendritic cells, and hepatic or lymphatic endothelial cells, but not on monocytes. MMR recognizes a range of microbial carbohydrates bearing mannose, fucose, or N-acetyl glucosamine. MMR mediates endocytosis and phagocytosis, induces activation of macrophages and antigen presentation, plays an important role in host defense, and provides a link between innate and adaptive immunity.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Purified human mannose receptor
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.  Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.  <a href="#">Learn more about Brilliant Violet™.</a>  This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	The 15-2 antibody blocks the interaction of MMR with its ligand, and inhibits mannose receptor-mediated degradation of t-PA by macrophages. Additional reported applications of this antibody (for the relevant formats) include: Western blotting <sup>1</sup> , blocking of ligand binding <sup>1,2</sup> , immunofluorescence <sup>3</sup> , and immunohistochemical staining of acetone-fixed frozen tissue sections <sup>1</sup> . The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is

recommended for functional assays (Cat. No. 321149 and 321150).

### Application References

1. Noorman F, *et al.* 1997. *J. Leukocyte Biol.* 61:63. (WB, IHC, Block)
2. Barrett-Bergshoeff M, *et al.* 1997. *Thromb Haemost.* 77:718. (Block)
3. Kato M, *et al.* 2007. *J. Immunol.* 179:6052. (IF)

### Product Citations

1. Friebe E, *et al.* 2020. *Cell.* 181(7):1626-1642.e20. [PubMed](#)
2. Klichinsky M, *et al.* 2020. *Nat Biotechnol.* 38:947. [PubMed](#)
3. Hearnden R, *et al.* 2021. *STAR Protocols.* 2(2):100422. [PubMed](#)
4. Wei Z, *et al.* 2021. *Nat Commun.* 0.805555556. [PubMed](#)

### RRID

AB\_2562673 (BioLegend Cat. No. 321125)  
AB\_2563839 (BioLegend Cat. No. 321126)

## Antigen Details

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<b>Structure</b>	Type I membrane protein, Pattern Recognition Receptor (PRR) family, C-type lectin superfamily, 162-175 kD
<b>Distribution</b>	Macrophages, dendritic cells, hepatic and lymphatic endothelial cells
<b>Function</b>	Pathogen binding, facilitate phagocytosis and endocytosis, macrophage activation and antigen presentation
<b>Ligand/Receptor</b>	Mannose, fucose, N-acetyl glucosamine
<b>Cell Type</b>	Dendritic cells, Endothelial cells, Macrophages
<b>Biology Area</b>	Cell Biology, Immunology, Neuroscience, Neuroscience Cell Markers
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Mason D, <i>et al.</i> Eds. 2002. <i>Leukocyte Typing VII.</i> Oxford University Press. p303</li><li>2. Wileman TE, <i>et al.</i> 1986. <i>P. Natl. Acad. Sci. USA</i> 83:2501.</li><li>3. Apostolopoulos V and McKenzie IF. 2001. <i>Curr. Mol. Med.</i> 1:469.</li><li>4. Le Cabec V, <i>et al.</i> 2005. <i>J. Leukocyte Biol.</i> 77:934.</li><li>5. Barrett-Bergshoeff M, <i>et al.</i> 1997. <i>Thromb. Haemostatis</i> 77:718.</li></ol>
<b>Gene ID</b>	<a href="#">4360</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

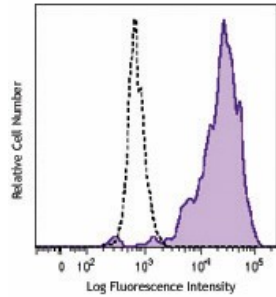
## Other Formats

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Purified anti-human CD206 (MMR), FITC anti-human CD206 (MMR), PE anti-human CD206 (MMR), PE/Cyanine5 anti-human CD206 (MMR), APC anti-human CD206 (MMR), Alexa Fluor® 488 anti-human CD206 (MMR), Alexa Fluor® 647 anti-human CD206 (MMR), Biotin anti-human CD206 (MMR), APC/Cyanine7 anti-human CD206 (MMR), PerCP/Cyanine5.5 anti-human CD206 (MMR), PE/Cyanine7 anti-human CD206 (MMR), Brilliant Violet 421™ anti-human CD206 (MMR), Purified anti-human CD206 (MMR) (Maxpar® Ready), Alexa Fluor® 700 anti-human CD206 (MMR), PE/Dazzle™ 594 anti-human CD206 (MMR), APC/Fire™ 750 anti-human CD206 (MMR), Brilliant Violet 711™ anti-human CD206 (MMR), Brilliant Violet 510™ anti-human CD206 (MMR), Brilliant Violet 605™ anti-human CD206 (MMR), Brilliant Violet 785™ anti-human CD206 (MMR), TotalSeq™-A0205 anti-human CD206 (MMR), TotalSeq™-B0205 anti-human CD206 (MMR), TotalSeq™-C0205 anti-human CD206 (MMR), Ultra-LEAF™ Purified anti-human CD206 (MMR), Pacific Blue™ anti-human CD206 (MMR), PE/Fire™ 700 anti-human CD206 (MMR), TotalSeq™-D0205 anti-human CD206 (MMR)

## Product Data

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GM-CSF-stimulated (3 days) human peripheral blood monocytes were stained with CD206 (clone 15-2) Brilliant Violet 421™ (filled histogram) or mouse IgG1, κ Brilliant Violet 421™ isotype control (open histogram).

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