

PE anti-human CD206 (MMR) Antibody

Catalog# / Size	321105 / 25 tests 321106 / 100 tests
Clone	15-2
Regulatory Status	RUO
Other Names	MMR (macrophage mannose receptor), MR (mannose receptor), CD206, MRC1
Isotype	Mouse IgG1, κ
Description	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

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Purified human mannose receptor
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . 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.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	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 ¹ , blocking of ligand binding ^{1,2} , immunofluorescence ³ , and immunohistochemical staining of acetone-fixed frozen tissue sections ¹ . 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	<ol style="list-style-type: none"> 1. Noorman F, <i>et al.</i> 1997. <i>J. Leukocyte Biol.</i> 61:63. (WB, IHC, Block) 2. Barrett-Bergshoeff M, <i>et al.</i> 1997. <i>Thromb Haemost.</i> 77:718. (Block) 3. Kato M, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:6052. (IF)
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none"> 1. Cao B, <i>et al.</i> 2022. <i>Nat Commun.</i> 13:6203. PubMed 2. Friebel E, <i>et al.</i> 2020. <i>Cell.</i> 181(7):1626-1642.e20. PubMed 3. Shen Y, <i>et al.</i> 2021. <i>Cell Stress Chaperones.</i> 26:937. PubMed

4. Zhan X, *et al.* 2014. *Biomaterials*. 35:10046. [PubMed](#)
5. Xun X, *et al.* 2021. *Am J Transl Res*. 13:4360. [PubMed](#)
6. Rodriguez-García A, *et al.* 2021. *Nat Commun*. 12:877. [PubMed](#)
7. Zhou WH, *et al.* 2022. *Discov Oncol*. 13:67. [PubMed](#)
8. Weisberg SP, *et al.* 2020. *Cell Reports*. 29(12):3916-3932.e5.. [PubMed](#)
9. Dan H, *et al.* 2020. *Mol Oncol*. 14:795. [PubMed](#)
10. Jaén RI, *et al.* 2022. *Int J Mol Sci*. 23:. [PubMed](#)
11. Rao X, *et al.* 2022. *Cell Death Dis*. 13:891. [PubMed](#)
12. Bourdely P, *et al.* 2020. *Immunity*. 53(2):335-352. [PubMed](#)
13. Malekghasemi S, *et al.* 2020. *Cell Biol Int*. 44:2031. [PubMed](#)
14. Yang M, *et al.* 2018. *Oncol Lett*. 15:3918. [PubMed](#)
15. Zangeneh Z, *et al.* 2022. *Iran J Basic Med Sci*. 25:474. [PubMed](#)
16. Sefik E, *et al.* 2021. *Nat Biotechnol*. . [PubMed](#)
17. Forsberg MH, *et al.* 2021. *Stem Cell Res Ther*. 12:459. [PubMed](#)
18. Qin XH, *et al.* 2019. *Langmuir*. 35:1882. [PubMed](#)
19. Lv J, *et al.* 2021. *Mol Med Rep*. 1. [PubMed](#)
20. Cho JH, *et al.* 2021. *Nat Commun*. 12:792. [PubMed](#)
21. Madsen NH, *et al.* 2021. *Pathogens*. 10:. [PubMed](#)
22. Barman S, *et al.* 2016. *Int Immunol*. 28: 533 - 545. [PubMed](#)
23. Soberanes S *et al.* 2018. *Cell metabolism*. 29(2):335-347 . [PubMed](#)
24. Kleinnijenhuis J, *et al.* 2012. *Proc Natl Acad Sci U S A*. 109:17537. [PubMed](#)
25. Wilcz-Villega E, *et al.* 2020. *EMBO Mol Med*. 12:e10491. [PubMed](#)
26. Georgouli M *et al.* 2019. *Cell*. 176(4):757-774 . [PubMed](#)
27. Chen X, *et al.* 2022. *Cell Commun Signal*. 20:92. [PubMed](#)

RRID AB_571910 (BioLegend Cat. No. 321105)
 AB_571911 (BioLegend Cat. No. 321106)

Antigen Details

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

Related Protocols

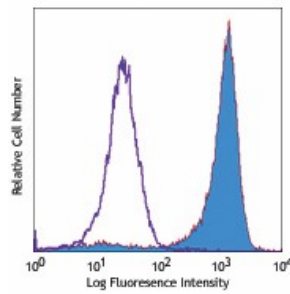
[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



GM-CSF-stimulated (day-3) human monocytes stained with 15-2 PE

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