

**DESCRIPTION**

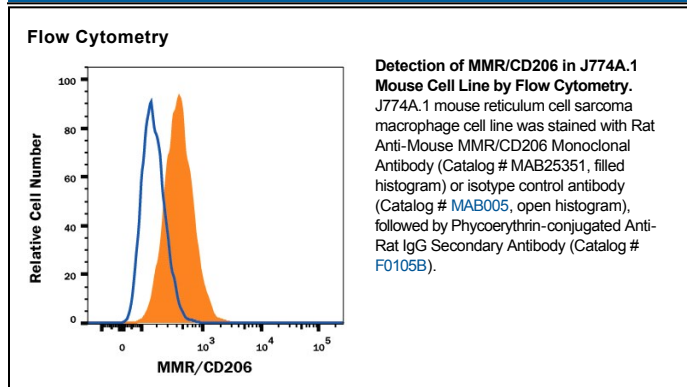
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse MMR in direct ELISAs.
<b>Source</b>	Monoclonal Rat IgG <sub>1</sub> Clone # 857615
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse MMR Leu19-Ala1388 Accession # Q61830
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25 µg/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

The MMR (macrophage mannose receptor) is also called MR due to its presence on cells other than macrophages, and is designated CD206, Mrc1 (mannose receptor C type 1), or CLEC13D (C-type lectin domain family 13, member D) (1-4). CD206 is a 175 kDa endocytic receptor that is expressed on M2 alternatively activated tissue macrophages including tumor-associated macrophages (TAMs), inflammatory dendritic cells in selected lymphoid organs, and liver, splenic, lymphatic, and dermal microvascular endothelial cells (1, 2, 5-8). The 1456 amino acid (aa) mouse CD206 precursor contains a signal sequence (19 aa), an extracellular domain (ECD) containing an N-terminal cysteine-rich domain, a fibronectin type II repeat, eight C-type lectin domains (CTLDs), and several N-glycosylation sites (1369 aa), a transmembrane segment and a short (47 aa) cytoplasmic domain (2-4). Metalloproteinases can mediate the shedding of the soluble ECD (2). The mouse CD206 ECD shares 96% aa sequence identity with rat MR, and 83-84% with human, equine, porcine and canine CD206. The cysteine-rich domain recognizes some pituitary hormones such as LH (luteinizing hormone/lutropin) and TSH (thyroid stimulating hormone/thyrotropin), chondroitin sulfates, and sulfated N-acetylgalactosamines including sulfo-Lewis<sup>a</sup> and -Lewis<sup>x</sup> (1, 7, 9). The FNII domain mediates Ca<sup>2+</sup>-independent binding of collagens (2, 10). The CTLDs participate in Ca<sup>2+</sup>-dependent recognition of branched sugars with terminal mannose, fucose or N-acetylglucosamine that occur on many pathogenic microorganisms (7, 11). CD206 internalizes ligands in clathrin-coated vesicles, sorts them to phagosomes or early endosomes, and recycles to the cell surface (1, 6, 7). CD206 also promotes clearance of glycoproteins that promote allergy or ongoing inflammation, such as lysosomal hydrolases and myeloperoxidases (1, 2, 5-7). It is involved in T cell polarization and production of pro- and anti-inflammatory cytokines (1, 2). It facilitates peptide presentation on MHC II, and cross-presentation on MHC I which is important for tumor immunogenicity (1, 2, 12). This function may be blocked by engagement of CD206 on TAMs by tumor mucins (8).

**References:**

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