Mouse MMR/CD206 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2535

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse MMR/CD206 in direct ELISAs and Western blots. In direct ELISAs, less than 45% cross-reactivity with recombinant human MMR is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse MMR/CD206 Leu19-Ala1388 Accession # Q2HZ94
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

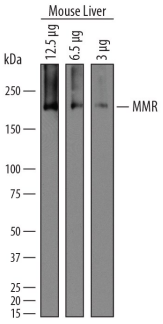
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Flow Cytometry	0.25 µg/10^6 cells	J774 mouse monocyte/macrophage cell line
Immunohistochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

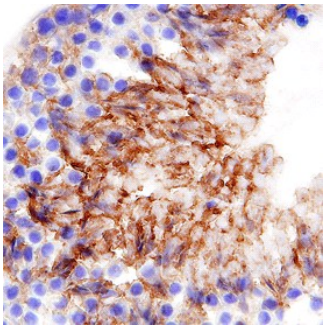
DATA

Western Blot



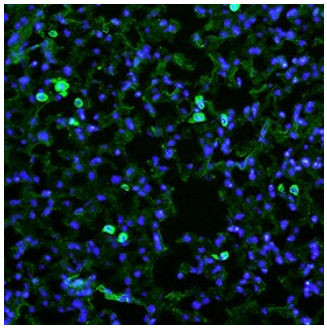
Detection of Mouse MMR/CD206 by Western Blot. Western blot shows lysates of mouse liver tissue. Gels were loaded with 12 µg, 6.5 µg, and 3 µg of tissue lysate. PVDF membrane was probed with 1 µg/mL of Goat Anti-Mouse MMR/CD206 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2535) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for MMR/CD206 at approximately 180 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



MMR/CD206 in Mouse Testis. MMR/CD206 was detected in perfusion fixed frozen sections of mouse testis using Goat Anti-Mouse MMR/CD206 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2535) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to spermatocytes in testis. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

Immunohistochemistry



MMR/CD206 in Mouse Lung. MMR/CD206 was detected in perfusion fixed frozen sections of mouse lung using Goat Anti-Mouse MMR/CD206 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2535) at 25 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 493-conjugated Anti-Goat IgG Secondary Antibody (green; Catalog # NL003) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm of macrophages. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

The mouse Macrophage Mannose Receptor (MMR), also known as CD206 and MRC1 (mannose receptor C, type 1), is a 175 kDa scavenger receptor that is expressed on tissue macrophages, myeloid dendritic cells, and liver and lymphatic endothelial cells (1). It belongs to a family of receptors sharing similar protein structure that also includes DEC205, phospholipase A2 receptor, and Endo180 (2, 3). The mouse MMR protein is synthesized as a 1456 amino acid (aa) precursor that contains a 19 aa signal sequence, a 1369 aa extracellular region, a 21 aa transmembrane segment and a 47 aa cytoplasmic domain (4). Its extracellular region is composed of an N-terminal cysteine-rich domain, followed by a single fibronectin type II repeat, and eight C-type lectin carbohydrate recognition domains (CRD) (3-5). Mouse to human, the extracellular region is 82% aa identical. The cysteine-rich domain mediates recognition of sulfated N-acetylgalactosamine, which occurs on some extracellular matrix proteins and is the terminal sugar of the unusual oligosaccharides present on pituitary hormones such as lutropin and thyrotropin (6). Several of the CRDs participate in the Ca^{2+}-dependent recognition of carbohydrates showing a preference for branched sugars with terminal mannose, fucose or N-acetylglucosamine (7). The cytoplasmic domain of MMR includes a tyrosine-based motif for internalization in clathrin-coated vesicles. Once internalized, ligands are released following acidification of phagosomes or endosomes, and the receptor recycles to the cell surface (3, 8). MMR mediates phagocytosis upon binding to target structures that occur on a variety of pathogenic microorganisms including Gram-negative and Gram-positive bacteria, yeasts, parasites, and mycobacteria. MMR also functions to maintain homeostasis through the endocytosis of potentially harmful glycoproteins associated with inflammation (2, 3).

References:

1. East, L. and C. Isake (2002) Biochim. Biophys. Acta **1572**:364.
2. Chieppa, M. *et al.* (2003) J. Immunol. **171**:4552.
3. Figdor, C. *et al.* (2002) Nat. Rev. Immunol. **2**:77.
4. Harris, N. *et al.* (1992) Blood **80**:2363.
5. Taylor, M. *et al.* (1990) J. Biol. Chem. **265**:12156.
6. Leteux, C. *et al.* (2000) J. Exp. Med. **191**:1117.
7. Martinez-Pomares, L. *et al.* (2001) Immunobiology **204**:527.
8. Feinberg, H. *et al.* (2000) J. Biol. Chem. **275**:21539.

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