# Anti-Mannose Receptor(CD206) Antibody [PSH07-76] - BSA and Azide free

# HA751188

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|---|---|
| **Product Type:** | Recombinant Rabbit monoclonal IgG, primary antibodies |
| **Species reactivity:** | Mouse, Rat |
| **Applications:** | WB, IHC-P, IF-Tissue, IHC-Fr, IF-Cell, IP |
| **Molecular Wt:** | Predicted band size: 165 kDa |
| **Clone number:** | PSH07-76 |

**Description:** The mannose receptor (Cluster of Differentiation 206, CD206) is a C-type lectin primarily present on the surface of macrophages, immature dendritic cells and liver sinusoidal endothelial cells, but is also expressed on the surface of skin cells such as human dermal fibroblasts and keratinocytes. It is the first member of a family of endocytic receptors that includes Endo180 (CD280), M-type PLA2R, and DEC-205 (CD205). The receptor recognises terminal mannose, N-acetylglucosamine and fucose residues on glycans attached to proteins found on the surface of some microorganisms, playing a role in both the innate and adaptive immune systems. Additional functions include clearance of glycoproteins from circulation, including sulphated glycoprotein hormones and glycoproteins released in response to pathological events. The mannose receptor recycles continuously between the plasma membrane and endosomal compartments in a clathrin-dependent manner.

**Immunogen:** Recombinant protein within mouse Mannose Receptor(CD206) aa 1-1,409.

**Positive control:** RAW264.7 treated with 20ng/mL mIL-4 and 10ng/mL mIL-13 for 24 hours cell lysate, Mouse lung tissue lysate, Mouse spleen tissue lysate, Rat brain tissue lysate, Rat lung tissue lysate, Rat liver tissue lysate, mouse spleen tissue, mouse liver tissue, rat liver tissue, mouse osteosarcoma tissue.

**Subcellular location:** Endosome membrane, Cell membrane.

**Database links:** SwissProt: Q61830 Mouse
Entrez Gene: 291327 Rat

**Recommended Dilutions:**

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|---|---|
| **WB** | 1:1,000-1:2,000 |
| **IHC-P** | 1:1,000 |
| **IF-Tissue** | 1:500 |
| **IHC-Fr** | 1:500-1:1,000 |
| **IF-Cell** | 1:50 |
| **IP** | 1-2μg/sample |

**Storage Buffer:** PBS (pH7.4).

**Storage Instruction:** Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

## Images

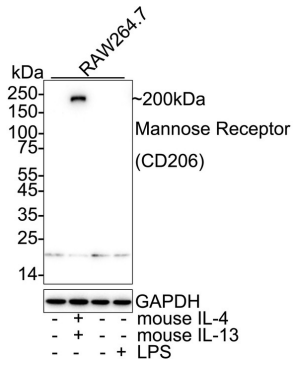


**Fig1:** Western blot analysis of Mannose Receptor(CD206) on different lysates with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/2,000 dilution.

Lane 1: RAW264.7 cell lysate
Lane 2: RAW264.7 treated with 20ng/mL mIL-4 and 10ng/mL mIL-13 for 24 hours cell lysate (Macrophage M2 polarization, positive)
Lane 3: RAW264.7 cell lysate
Lane 4: RAW264.7 treated with 0.1μg/mL LPS for 6 hours cell lysate (Macrophage M1 polarization, negative)

Lysates/proteins at 20 μg/Lane.

Predicted band size: 165 kDa
Observed band size: 200 kDa

Exposure time: 59 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA751188) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

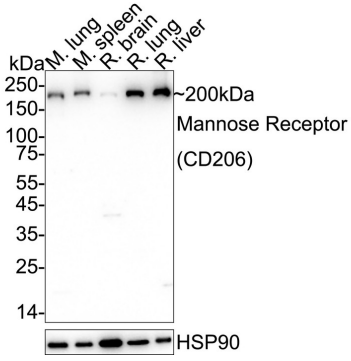


**Fig2:** Western blot analysis of Mannose Receptor(CD206) on different lysates with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/1,000 dilution.

Lane 1: Mouse lung tissue lysate (20 μg/Lane)
Lane 2: Mouse spleen tissue lysate (20 μg/Lane)
Lane 3: Rat brain tissue lysate (20 μg/Lane)
Lane 4: Rat lung tissue lysate (20 μg/Lane)
Lane 5: Rat liver tissue lysate (20 μg/Lane)

Predicted band size: 165 kDa
Observed band size: 200 kDa

Exposure time: 42 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA751188) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

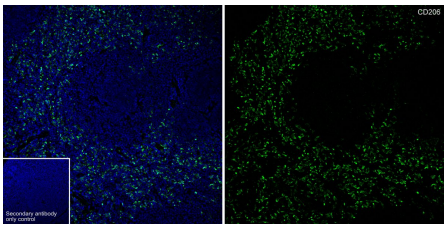


**Fig3:** Application: IHC-Fr

Species: Mouse

Site: Spleen

Sample: Frozen section

Antibody concentration: 1/1,000

Antigen retrieval: Not required

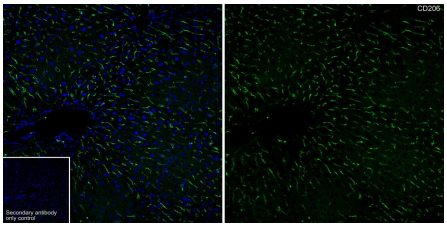


**Fig4:** Application: IHC-Fr

Species: Mouse

Site: Liver

Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: Not required

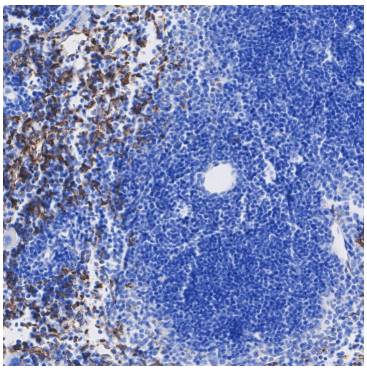

**Fig5:** Immunohistochemical analysis of paraffin-embedded mouse spleen tissue with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA751188) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

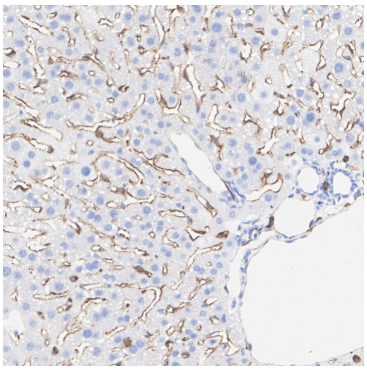

**Fig6:** Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with dd$H_2O$ and PBS, and then probed with the primary antibody (HA751188) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

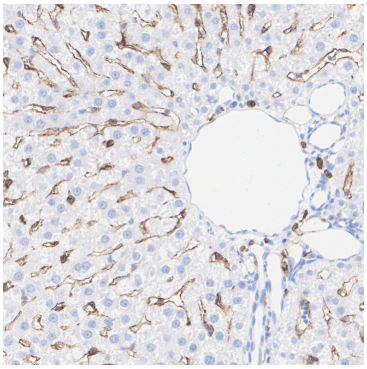

**Fig7:** Immunohistochemical analysis of paraffin-embedded rat liver tissue with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with dd$H_2O$ and PBS, and then probed with the primary antibody (HA751188) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

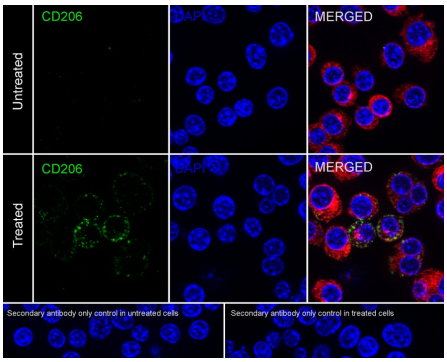


**Fig8:** Immunocytochemistry analysis of RAW264.7 cells treated with 20ng/mL mIL-4 and 10ng/mL mIL-13 for 24 hours (Macrophage M2 polarization, positive) labeling Mannose Receptor(CD206) with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/50 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

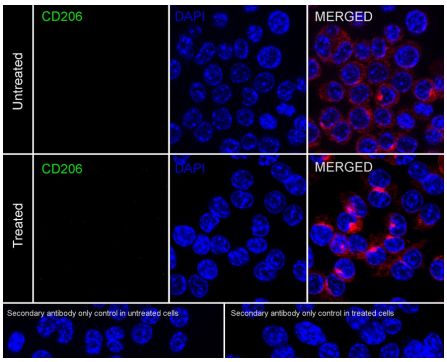


**Fig9:** Immunocytochemistry analysis of RAW264.7 cells treated with 0.1μg/mL LPS for 6 hours (Macrophage M1 polarization, negative) labeling Mannose Receptor(CD206) with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Mannose Receptor(CD206) antibody (HA751188) at 1/50 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

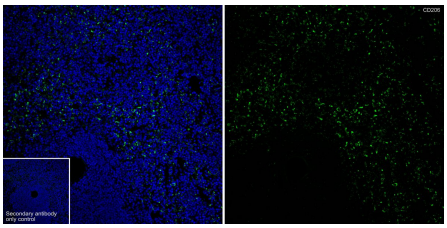

**Fig10:** Application: IF-tissue

Species: Mouse

Site: Spleen

Sample: Paraffin-embedded section

Antibody concentration: 1/500

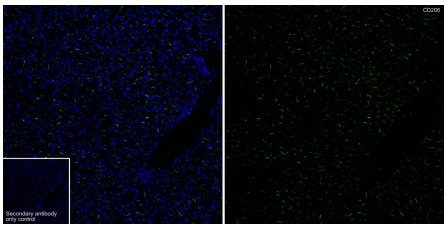

**Fig11:** Application: IF-tissue

Species: Mouse

Site: Liver

Sample: Paraffin-embedded section

Antibody concentration: 1/500

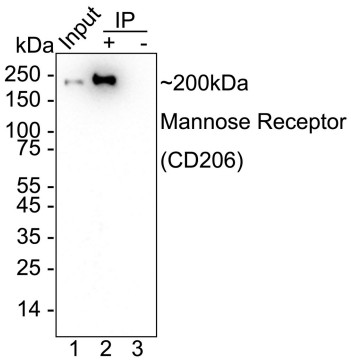


**Fig12:** Mannose Receptor(CD206) was immunoprecipitated from 0.2 mg rat lung tissue lysate with HA751188 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA751188 at 1/1,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: rat lung tissue lysate (input)
Lane 2: HA751188 IP in rat lung tissue lysate
Lane 3: Rabbit IgG instead of HA751188 in rat lung tissue lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 1 minute; ECL: K1801



## Background References

1. Nielsen MC et al. Macrophage Activation Markers, CD163 and CD206, in Acute-on-Chronic Liver Failure. Cells. 2020 May
2. Nawaz A et al. Depletion of CD206(+) M2-like macrophages induces fibro-adipogenic progenitors activation and muscle regeneration. Nat Commun. 2022 Nov