Anti-CD68 Antibody [PSH06-65] - BSA and Azide free

HA751094

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, IF-Tissue, IHC-Fr
Molecular Wt:	Predicted band size: 35 kDa
Clone number:	PSH06-65

Description: CD68 (Cluster of Differentiation 68) is a protein highly expressed by cells in the monocyte lineage (e.g., monocytic phagocytes, osteoclasts), by circulating macrophages, and by tissue macrophages (e.g., Kupffer cells, microglia). Other names or aliases for this gene in humans and other animals include: CD68 Molecule, CD68 Antigen, GP110, Macrosialin, Scavenger Receptor Class D, Member 1, SCARD1, and LAMP4. The mouse equivalent is known as "macrosialin".

Immunogen: Recombinant protein within mouse CD68 aa 1-316.

Positive control: RAW264.7 cell lysate, M NFS 60 cell lysate, J774A.1 cell lysate, Rat spleen tissue lysate, RAW264.7, mouse brain tissue, mouse intestine tissue, mouse spleen tissue, rat intestine tissue, rat spleen tissue.

Subcellular location: Endosome membrane, Lysosome membrane; Cell membrane.

Database links:
SwissProt: P31996 Mouse
Entrez Gene: 287435 Rat

Recommended Dilutions:

WB	1:5,000
IF-Cell	1:100
IHC-P	1:500
IF-Tissue	1:500
IHC-Fr	1:1,000

Storage Buffer: 1*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

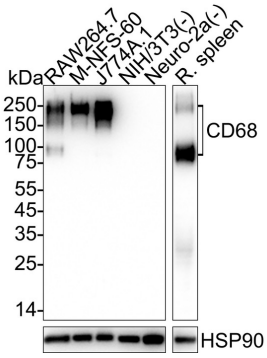

Fig1: Western blot analysis of CD68 on different lysates with Rabbit anti-CD68 antibody (HA751094) at 1/5,000 dilution.

Lane 1: RAW264.7 cell lysate (20 µg/Lane)
Lane 2: M NFS 60 cell lysate (20 µg/Lane)
Lane 3: J774A.1 cell lysate (20 µg/Lane)
Lane 4: NIH/3T3 cell lysate (negative) (20 µg/Lane)
Lane 5: Neuro-2a cell lysate (negative) (20 µg/Lane)
Lane 6: Rat spleen tissue lysate (no heat) (40 µg/Lane)

Notice: no heat means the lysate is not boiled.

Predicted band size: 35 kDa
Observed band size: 90-200 kDa

Exposure time: 12 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 (HA751094) at 1/5,000 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.

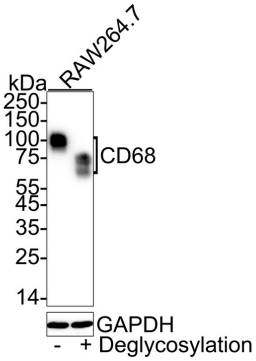

Fig2: Western blot analysis of CD68 on different lysates with Rabbit anti-CD68 antibody (HA751094) at 1/5,000 dilution.

Lane 1: RAW264.7 cell lysate
Lane 2: RAW264.7 cell lysate treated with deglycosylation

Lysates/proteins at 20 µg/Lane.

Predicted band size: 35 kDa
Observed band size: 60-100 kDa

Exposure time: 10 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 (HA751094) at 1/5,000 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.

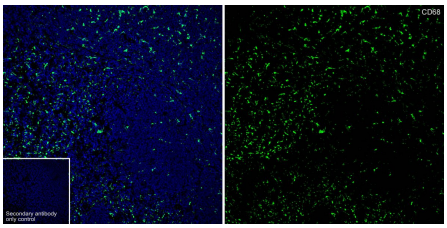

Fig3: Application: IHC-Fr

Species: Mouse

Site: Spleen

Sample: Frozen section

Antibody concentration: 1/1,000

Antigen retrieval: Not required

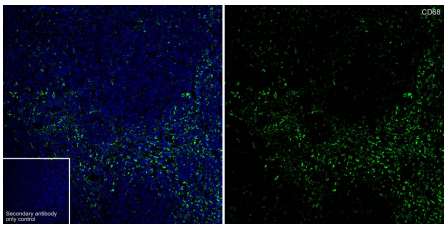

Fig4: Application: IHC-Fr

Species: Rat

Site: Spleen

Sample: Frozen section

Antibody concentration: 1/1,000

Antigen retrieval: Not required

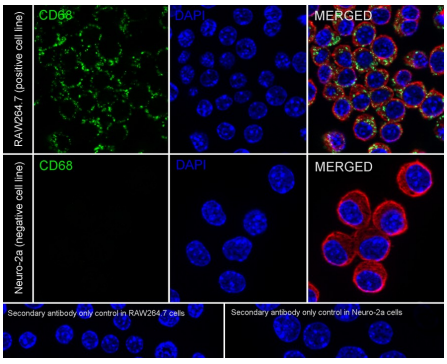

Fig5: Immunocytochemistry analysis of RAW264.7 (positive) and Neuro-2a (negative) labeling CD68 with Rabbit anti-CD68 antibody (HA751094) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 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-CD68 antibody (HA751094) at 1/100 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.

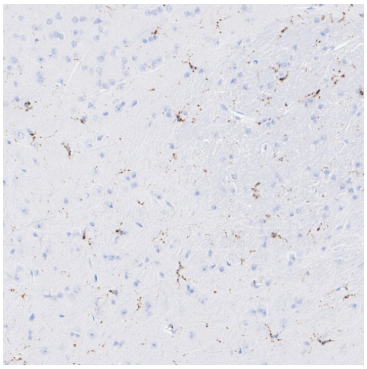

Fig6: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-CD68 antibody (HA751094) at 1/500 dilution.

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 (HA751094) at 1/500 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.

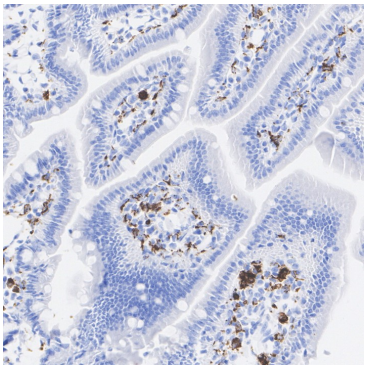

Fig7: Immunohistochemical analysis of paraffin-embedded mouse intestine tissue with Rabbit anti-CD68 antibody (HA751094) at 1/500 dilution.

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 (HA751094) at 1/500 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.

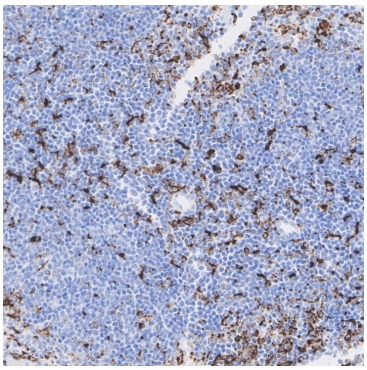

Fig8: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue with Rabbit anti-CD68 antibody (HA751094) at 1/500 dilution.

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 (HA751094) at 1/500 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.

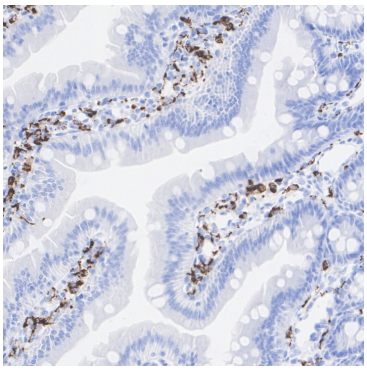

Fig9: Immunohistochemical analysis of paraffin-embedded rat intestine tissue with Rabbit anti-CD68 antibody (HA751094) at 1/500 dilution.

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 (HA751094) at 1/500 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.

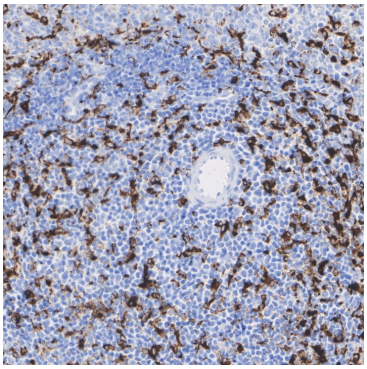

Fig10: Immunohistochemical analysis of paraffin-embedded rat spleen tissue with Rabbit anti-CD68 antibody (HA751094) at 1/500 dilution.

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 (HA751094) at 1/500 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.

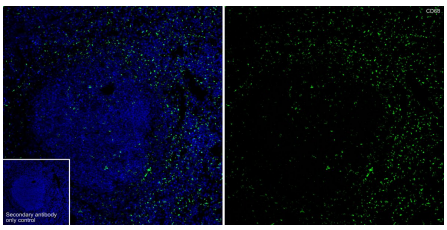

Fig11: Application: IF-tissue

Species: Mouse

Site: Spleen

Sample: Paraffin-embedded section

Antibody concentration: 1/500

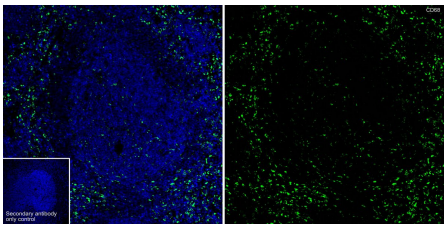

Fig12: Application: IF-tissue

Species: Rat

Site: Spleen

Sample: Paraffin-embedded section

Antibody concentration: 1/500

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Choudhary M et al. CD68: Potential Contributor to Inflammation and RPE Cell Dystrophy. Adv Exp Med Biol. 2023
2. Deng R et al. Periosteal CD68(+) F4/80(+) Macrophages Are Mechanosensitive for Cortical Bone Formation by Secretion and Activation of TGF-beta1. Adv Sci (Weinh). 2022 Jan