

CD68 Recombinant Antibody [PSH06-65] - Rat IgG1 (Chimeric)

HA601596



Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Mouse, Rat
Applications:	WB, IHC-Fr, IHC-P, IF-Cell, IF-Tissue
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 (Mouse monocytic macrophage leukemia cells) cell lysate, Mouse spleen tissue lysate, Rat spleen tissue lysate.

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

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

Recommended Dilutions:

WB	1:2,000
IHC-Fr	1:200
IHC-P	1:500
IF-Cell	1:500
IF-Tissue	1:200

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn


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Images

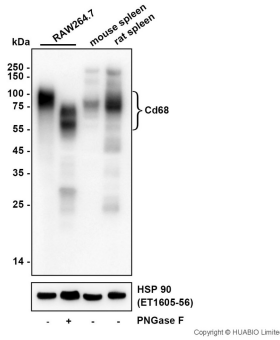


Fig1: Western blot analysis of CD68 on different lysates with Rat anti-CD68 antibody (HA601596) at 1/2,000 dilution.

Lane 1: RAW264.7 (Mouse monocytic macrophage leukemia cells) cell lysate (10 µg/Lane)

Lane 2: RAW264.7 treated with PNGase F cell lysate (10 µg/Lane)

Lane 3: Mouse spleen tissue lysate (20 µg/Lane)

Lane 4: Rat spleen tissue lysate (20 µg/Lane)

Exposure time: 20 seconds; ECL: K1801

CD68 is a glycoprotein and can be deglycosylated by PNGase F. The molecular mass observed is consistent with the literature (PMID : 7680921)

Blocking: 5% NFDm/TBST, 1 hour at room temperature

Primary antibody: HA601596, 1/2,000 in primary antibody dilution buffer (K1803), overnight at 4 °C

Secondary antibody: Goat anti-Rat IgG-HRP (HA1023), 1/50,000 in 5% NFDm/TBST, 1 hour at room temperature

Predicted band size: 35 kDa

Observed band size: 60-100 kDa

Fig2: Application: Immunofluorescence (IHC-Fr)

Species: Mouse

Tissue: Spleen

Sample: Frozen section

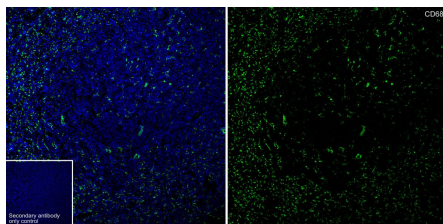
Antigen retrieval: Not required

Wash buffer: 1× PBST

Blocking: 10% normal goat serum + 0.5 % Triton X-100 + 0.3 M Glycine in PBS, 10 minutes at room temperature.

Primary antibody: HA601596, 1/200, overnight at 4°C.

Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 1.5 hours at room temperature.



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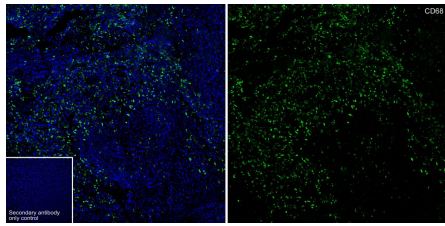


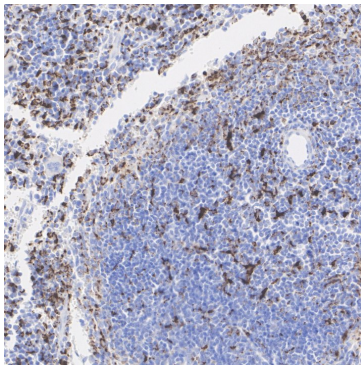
Fig3: Application: Immunofluorescence (IHC-Fr)

Species: Rat
Tissue: Spleen
Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× PBST
Blocking: 10% normal goat serum + 0.5 % Triton X-100 + 0.3 M Glycine in PBS, 10 minutes at room temperature.
Primary antibody: HA601596, 1/200, overnight at 4°C.
Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 1.5 hours at room temperature.

Fig4: Application: Immunohistochemistry (IHC-P)

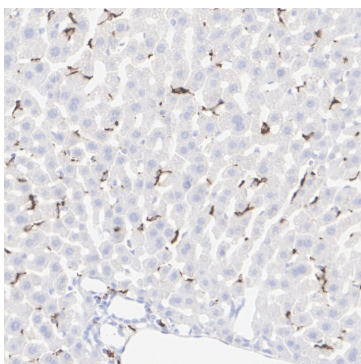


Species: Mouse
Tissue: Spleen
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H₂O₂, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601596, 1/500, 1 hour at room temperature.
Secondary antibody: HA1023, 30 minutes at room temperature.

Fig5: Application: Immunohistochemistry (IHC-P)



Species: Mouse
Tissue: Liver
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H₂O₂, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601596, 1/500, 1 hour at room temperature.
Secondary antibody: HA1023, 30 minutes at room temperature.

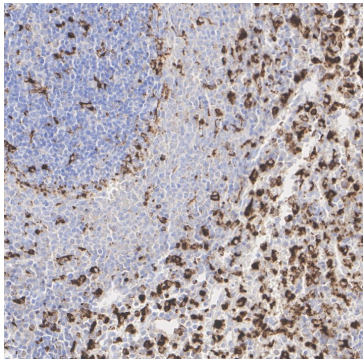


Fig6: Application: Immunohistochemistry (IHC-P)

Species: Rat
Tissue: Spleen
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H₂O₂, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601596, 1/500, 1 hour at room temperature.
Secondary antibody: HA1023, 30 minutes at room temperature.

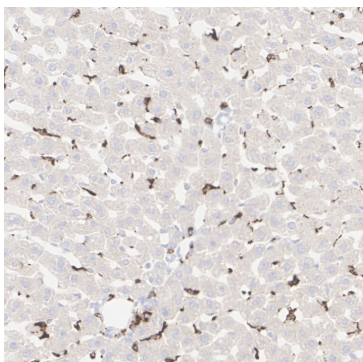


Fig7: Application: Immunohistochemistry (IHC-P)

Species: Rat
Tissue: Liver
Sample: Paraffin-embedded section

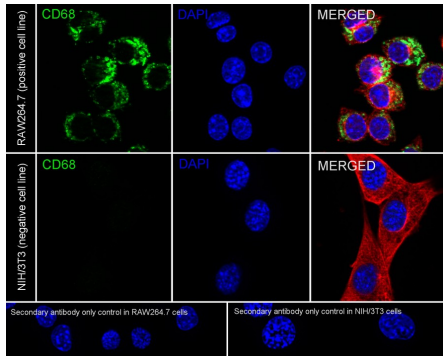
Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H₂O₂, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601596, 1/500, 1 hour at room temperature.
Secondary antibody: HA1023, 30 minutes at room temperature.

Fig8: Application: Immunocytochemistry (IF-cell)

Species: Mouse

Sample: RAW264.7 (Mouse monocytic macrophage leukemia cells)/NIH/3T3 (Mouse fibroblasts)



Fixation: 4% Paraformaldehyde, 15 minutes at room temperature.
 Permeabilization: 0.1% Triton X-100, 15 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 1 hour at room temperature.

Antibody dilution buffer: 1% BSA in PBST.

Primary antibody: HA601596, 1/500, overnight at 4°C.

Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 45 minutes at room temperature.

Counterstain: Beta tubulin (HA601187, red), 1/100, overnight at 4°C. The Nuclear counterstain was DAPI (Blue).

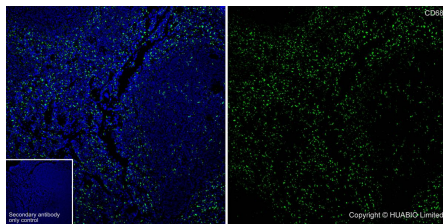
Negative control: NIH/3T3 (PMID: 29631164).

Fig9: Application: Immunofluorescence (IF-tissue)

Species: Mouse

Tissue: Spleen

Sample: Paraffin-embedded section



Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× PBST

Endogenous peroxidase blocking: 3% H₂O₂, 10 minutes.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA601596, 1/200, overnight at 4°C.

Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 1.5 hours at room temperature.

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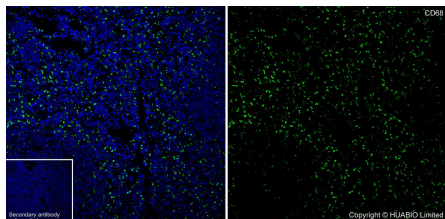
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Fig10: Application: Immunofluorescence (IF-tissue)

Species: Rat

Tissue: Spleen

Sample: Paraffin-embedded section



Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× PBST

Endogenous peroxidase blocking: 3% H₂O₂, 10 minutes.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA601596, 1/200, overnight at 4°C.

Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 1.5 hours at room temperature.

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

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