

F4/80 Recombinant Antibody [PSH01-87] - Mouse IgG1 (Chimeric)

HA601537



Product Type:	Recombinant Chimeric Antibody IgG, primary antibodies
Species reactivity:	Mouse
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 102 kDa
Clone number:	PSH01-87

Description: EGF-like module-containing mucin-like hormone receptor-like 1 also known as F4/80 is a protein encoded by the ADGRE1 gene. EMR1 is a member of the adhesion GPCR family. Adhesion GPCRs are characterized by an extended extracellular region often possessing N-terminal protein modules that is linked to a TM7 region via a domain known as the GPCR-Autoproteolysis INDucing (GAIN) domain. EMR1 expression in human is restricted to eosinophils and is a specific marker for these cells. The murine homolog of EMR1, F4/80, is a well-known and widely used marker of murine macrophage populations. The N-terminal fragment (NTF) of EMR1 contains 4-6 Epidermal Growth Factor-like (EGF-like) domains in human and 4-7 EGF-like domains in the mouse. Utilizing F4/80 knockout mice, Lin et al. showed that F4/80 is not necessary for the development of tissue macrophages but is required for the induction of efferent CD8+ regulatory T cells needed for peripheral tolerance.

Immunogen: Recombinant protein within mouse F4/80 aa 1-650 / 931.

Positive control: RAW264.7 cell lysate, Mouse spleen tissue lysate, mouse liver tissue, mouse lung tissue.

Subcellular location: Cell membrane.

Database links: SwissProt: Q61549 Mouse

Recommended Dilutions:

WB	1:5,000
IHC-P	1:2,000-1:5,000

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). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

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Technical:0086-571-89986345

Service mail:support@huabio.cn

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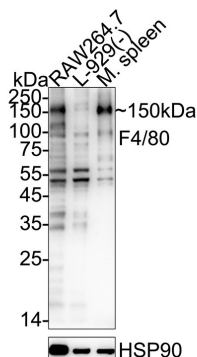
Images

Fig1: Western blot analysis of F4/80 on different lysates with Mouse anti-F4/80 antibody (HA601537) at 1/5,000 dilution.

Lane 1: RAW264.7 cell lysate (no heat) (10 µg/Lane)

Lane 2: L-929 cell lysate (negative) (10 µg/Lane)

Lane 3: Mouse spleen tissue lysate (no heat) (10 µg/Lane)



Notice: no heat means the lysate is not boiled.

Predicted band size: 102 kDa

Observed band size: 150 kDa

Exposure time: 1 minute 2 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 (HA601537) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4 °C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

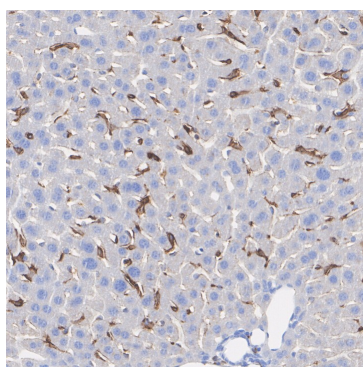


Fig2: Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Mouse anti-F4/80 antibody (HA601537) at 1/5,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (HA601537) at 1/5,000 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.

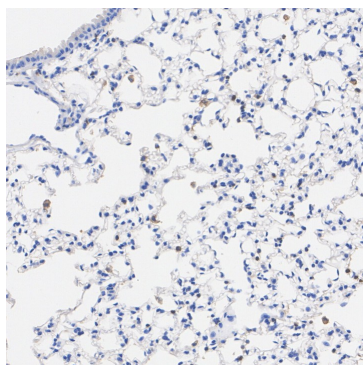


Fig3: Immunohistochemical analysis of paraffin-embedded mouse lung tissue with Mouse anti-F4/80 antibody (HA601537) at 1/2,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (HA601537) at 1/2,000 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.

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

Background References

1. Shin AE et al. F4/80(+)Ly6C(high) Macrophages Lead to Cell Plasticity and Cancer Initiation in Colitis. *Gastroenterology*. 2023 Apr
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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