

Anti-CD19 Antibody [PSH03-94] - BSA and Azide free

HA750919



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse
Applications:	WB, IHC-P, IF-Tissue, IP, IHC-Fr, FC, IF-Cell
Molecular Wt:	Predicted band size: 60 kDa
Clone number:	PSH03-94

Description: B-lymphocyte antigen CD19, also known as CD19 molecule (Cluster of Differentiation 19), B-Lymphocyte Surface Antigen B4, T-Cell Surface Antigen Leu-12 and CVID3 is a transmembrane protein that in humans is encoded by the gene CD19. In humans, CD19 is expressed in all B lineage cells. Contrary to some early doubts, human plasma cells do express CD19, as confirmed by others. CD19 plays two major roles in human B cells: on the one hand, it acts as an adaptor protein to recruit cytoplasmic signaling proteins to the membrane; on the other, it works within the CD19/CD21 complex to decrease the threshold for B cell receptor signaling pathways. Due to its presence on all B cells, it is a biomarker for B lymphocyte development, lymphoma diagnosis and can be utilized as a target for leukemia immunotherapies.

Immunogen: Recombinant protein within mouse CD19 protein.

Positive control: Mouse spleen tissue lysates, mouse lymph node tissue, mouse spleen tissue, mouse spleen cells.

Subcellular location: Cell membrane, Membrane raft.

Database links: SwissProt: P25918 Mouse

Recommended Dilutions:

WB	1:1,000
IHC-P	1:500
IF-Tissue	1:200
IP	1-2µg/sample
IHC-Fr	1:500
FC	1:1,000
IF-Cell	1:200

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.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

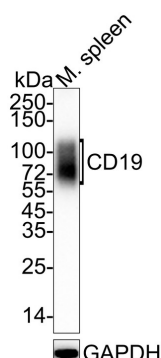


Fig1: Western blot analysis of CD19 on mouse spleen tissue lysates with Rabbit anti-CD19 antibody (HA750919) at 1/1,000 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 60 kDa

Observed band size: 60-120 kDa

Exposure time: 30 seconds;

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 (HA750919) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Application: IHC-Fr

Species: Mouse

Site: spleen

Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: Recommend. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven.

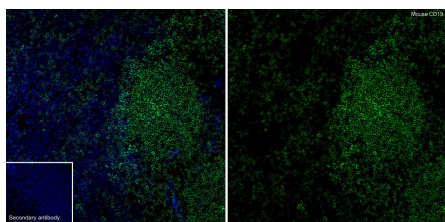
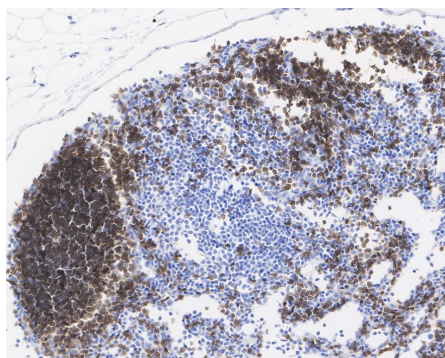


Fig3: Immunohistochemical analysis of paraffin-embedded mouse lymph node tissue with Rabbit anti-CD19 antibody (HA750919) at 1/500 dilution.



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 ddH₂O and PBS, and then probed with the primary antibody (HA750919) 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.

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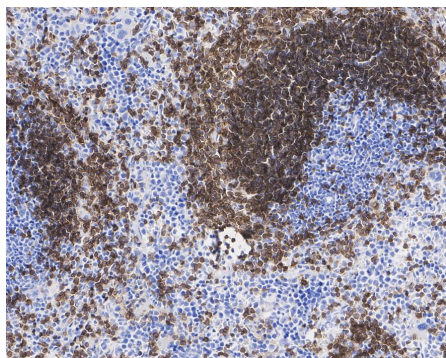


Fig4: Immunohistochemical analysis of paraffin-embedded mouse spleen tissue with Rabbit anti-CD19 antibody (HA750919) at 1/500 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (HA750919) 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.

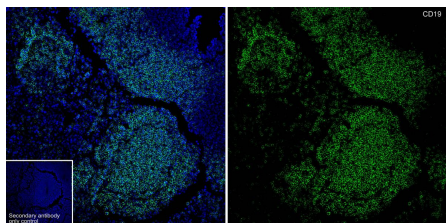


Fig5: Application: IF-Tissue

Species: Mouse

Site: spleen

Sample: Paraffin-embedded section

Antibody concentration: 1/200

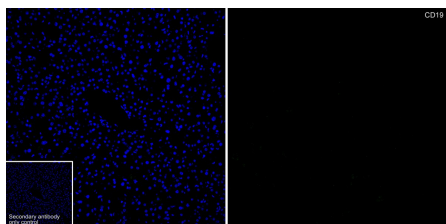


Fig6: Application: IF-Tissue

Species: Mouse

Site: liver (negative)

Sample: Paraffin-embedded section

Antibody concentration: 1/200

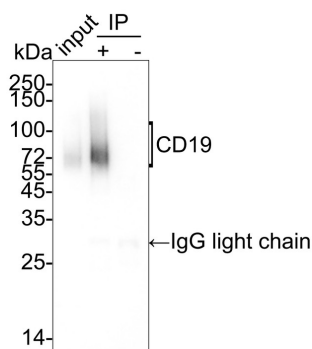


Fig7: CD19 was immunoprecipitated in 0.2mg mouse spleen tissue lysate with HA750919 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA750919 at 1/1,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: Mouse spleen tissue lysate (input)

Lane 2: HA750919 IP in mouse spleen tissue lysate

Lane 3: Rabbit IgG instead of HA750919 in mouse spleen tissue lysate

Blocking/Dilution buffer: 5% NFDM/TBST

Exposure time: 17 seconds; ECL: K1802

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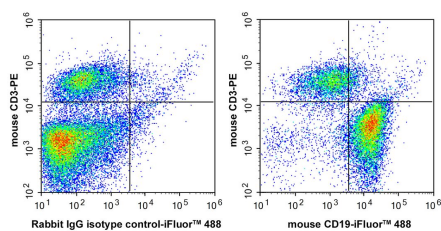
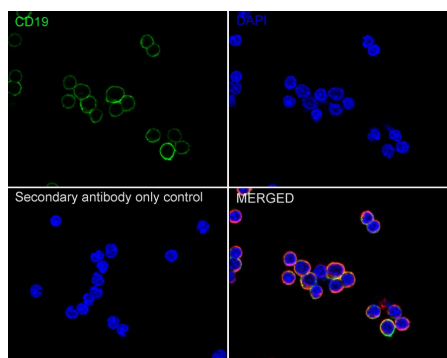


Fig8: Flow cytometric analysis of mouse spleen cells labeling CD19 (HA750919) and CD3-PE.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA750919, 1/1,000). After incubation of the primary antibody at +4 °C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4 °C.

Fig9: Immunocytochemistry analysis of mouse spleen cells labeling CD19 with Rabbit anti-CD19 antibody (HA750919) at 1/200 dilution.



Cells were fixed in 4% paraformaldehyde 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-CD19 antibody (HA750919) at 1/200 dilution in 1% BSA in PBST overnight at 4 °C. 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 (HA601187, red) was stained at 1/100 dilution overnight at +4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

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

Background References

1. Mougiakakos D et al. CD19-Targeted CAR T Cells in Refractory Systemic Lupus Erythematosus. N Engl J Med. 2021 Aug
2. Jin X et al. Therapeutic efficacy of anti-CD19 CAR-T cells in a mouse model of systemic lupus erythematosus. Cell Mol Immunol. 2021 Aug

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