Anti-CD169 Antibody [PSH05-21] - BSA and Azide free

HA750992

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, FC
Molecular Wt:	Predicted band size: 183 kDa
Clone number:	PSH05-21

Description: Sialoadhesin is a cell adhesion molecule found on the surface of macrophages. It is found in especially high amounts on macrophages of the spleen, liver, lymph node, bone marrow, colon, and lungs. Also, in patients with rheumatoid arthritis, the protein has been found in great amounts on macrophages of the affected tissues. It is defined as an I-type lectin, since it contains 17 immunoglobulin (Ig) domains (one variable domain and 16 constant domains), and thus also belongs to the immunoglobulin superfamily (IgSF). Sialoadhesin binds to certain molecules called sialic acids. During this binding process a salt bridge (protein) is formed between a highly conserved arginine residue (from the v-set domain to the 3'-sialyllactose) and the carboxylate group of the sialic acid. Since sialoadhesin binds sialic acids with its N-terminal IgV-domain, it is also a member of the SIGLEC family. Alternate names for sialoadhesin include siglec-1 and CD169 (cluster of differentiation 169). Sialoadhesin predominantly binds neutrophils, but can also bind monocytes, natural killer cells, B cells and a subset of cytotoxic T cells by interacting with sialic acid molecules in the ligands on their surfaces. Sialoadhesin (CD169) positive macrophages, along with mesenchymal stem cells and beta-adrenergic neurons, form the hematopoietic stem cell niche in the bone marrow. CD169+ macrophages mediate signaling between the various cells and seem to promote hematopoietic stem cell retention to the niche.

Immunogen:	Recombinant protein within human CD169 aa 1-1,000 / 1,709.
Positive control:	K-562 cell lysate, RAW264.7 cell lysate, THP-1 cells treated with 50ng/mL PMA for 72 hours add 1μg/mL LPS for 24 hours, RAW264.7 cells treated with 1μg/mL LPS for 24 hours.
Subcellular location:	Cell membrane, Secreted.
Database links:	SwissProt: Q9BZZ2 Human | Q62230 Mouse
Recommended Dilutions:	
WB	1:2,000
FC	1:2,000
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

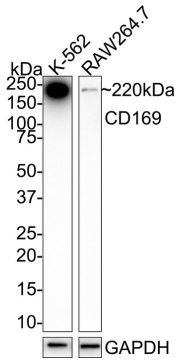

Fig1: Western blot analysis of CD169 on different lysates with Rabbit anti-CD169 antibody (HA750992) at 1/2,000 dilution.

Lane 1: K-562 cell lysate
Lane 2: RAW264.7 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 183 kDa
Observed band size: 220 kDa

Exposure time: 28 seconds; ECL: K1802;

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 (HA750992) 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.

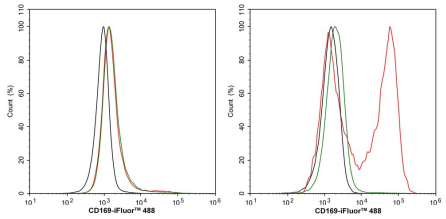

Fig2: Flow cytometric analysis of THP-1 cells (left) and THP-1 cells treated with 50ng/mL PMA for 72 hours add 1µg/mL LPS for 24 hours (right) labeling CD169.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA750992, 0.5µg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ 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℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

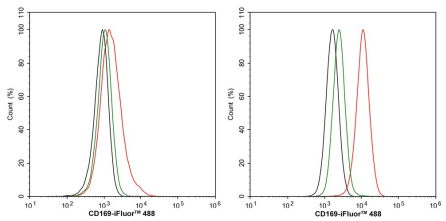

Fig3: Flow cytometric analysis of RAW264.7 cells (left) and RAW264.7 cells treated with 1µg/mL LPS for 24 hours (right) labeling CD169.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA750992, 0.5µg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ 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℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Kim HJ et al. Blood monocyte-derived CD169(+) macrophages contribute to antitumor immunity against glioblastoma. Nat Commun. 2022 Oct
2. Yeung ST et al. CD169+ macrophage intrinsic IL-10 production regulates immune homeostasis during sepsis. Cell Rep. 2023 Mar