Anti-CD48 Antibody [PSH10-65] - BSA and Azide free

HA751368

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, FC, IP, IHC-P
Molecular Wt:	Predicted band size: 28 kDa
Clone number:	PSH10-65

Description: CD48 is a glycosylphosphatidylinositol (GPI) -anchored membrane protein of the signaling lymphocyte activation molecule (SLAM) family, also known as SLAMF2 and BLAST-1. It is constitutively expressed on most hematopoietic cells (not on neutrophils and a subset of long-term hematopoietic stem cells in mice) and can be upregulated under certain conditions like infection. Interaction with its low affinity ligand CD2 promotes adhesion and TCR signaling. Interaction with the high affinity ligand CD244 (2B4) regulates natural killer (NK) and CD8 T cell activation and cytolytic function.

Immunogen: Recombinant protein within human CD48 aa 27-220.

Positive control: Raji cell lysate, Ramos cell lysate, Daudi cell lysate, Jurkat cell lysate, Daudi, human colon tissue, human tonsil tissue, human lung adenocarcinoma tissue.

Subcellular location: Cell membrane, Membrane raft, Secreted.

Database links: SwissProt: P09326 Human

Recommended Dilutions:

WB	1:2,000
FC	1:2,000
IP	1-2μg/sample
IHC-P	1:600-1:2,000

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

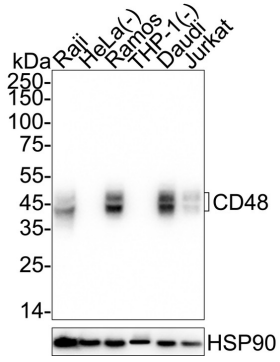

Fig1: Western blot analysis of CD48 on different lysates with Rabbit anti-CD48 antibody (HA751368) at 1/2,000 dilution.

Lane 1: Raji cell lysate
Lane 2: HeLa cell lysate (negative)
Lane 3: Ramos cell lysate
Lane 4: THP-1 cell lysate (negative)
Lane 5: Daudi cell lysate
Lane 6: Jurkat cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 28 kDa
Observed band size: 40-50 kDa

Exposure time: 25 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 (HA751368) 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.

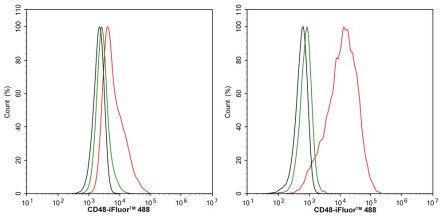

Fig2: Flow cytometric analysis of HeLa (left, negative) and Daudi (right, positive) cells labeling CD48.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA751368, 1/2,000) (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).

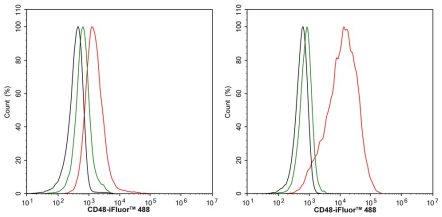

Fig3: Flow cytometric analysis of THP-1 (left, negative) and Daudi (right, positive) cells labeling CD48.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA751368, 1/2,000) (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).

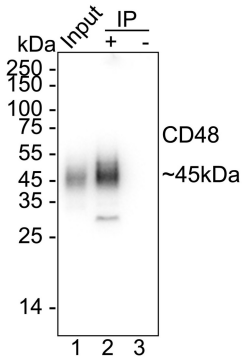

Fig4: CD48 was immunoprecipitated from 0.2 mg Daudi cell lysate with HA751368 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA751368 at 1/1,000 dilution. HRP Conjugated Anti-Rabbit IgG for IP Nano-secondary antibody at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: Daudi cell lysate (input)
Lane 2: HA751368 IP in Daudi cell lysate
Lane 3: Rabbit IgG instead of HA751368 in Daudi cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 4 seconds; ECL: K1801

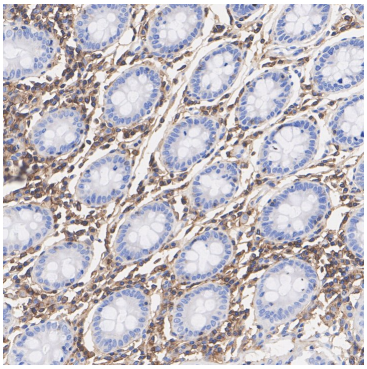

Fig5: Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-CD48 antibody (HA751368) at 1/2,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA751368) 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.

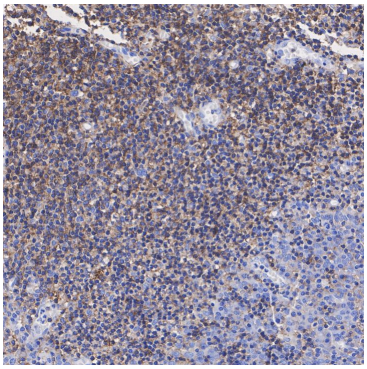

Fig6: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-CD48 antibody (HA751368) at 1/600 dilution.

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 (HA751368) at 1/600 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.

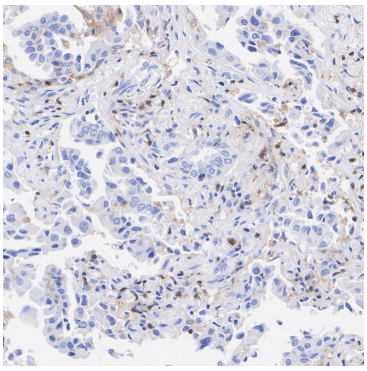

Fig7: Immunohistochemical analysis of paraffin-embedded human lung adenocarcinoma tissue with Rabbit anti-CD48 antibody (HA751368) at 1/2,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA751368) 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.

Background References

1. Wang Z et al. GDF15 induces immunosuppression via CD48 on regulatory T cells in hepatocellular carcinoma. J Immunother Cancer. 2021 Sep
2. Liu J et al. Epigenetic regulation of CD38/CD48 by KDM6A mediates NK cell response in multiple myeloma. Nat Commun. 2024 Feb