Anti-CD81 Antibody [PSH10-26]

HA723193

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Rat
Applications:	WB, IHC-P, FC
Molecular Wt:	Predicted band size: 26 kDa
Clone number:	PSH10-26

Description: The protein encoded by this gene is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. Most of these members are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. This encoded protein is a cell surface glycoprotein that is known to complex with integrins. This protein appears to promote muscle cell fusion and support myotube maintenance. Also it may be involved in signal transduction. This gene is localized in the tumor-suppressor gene region and thus it is a candidate gene for malignancies. The tetraspanin family includes CD9, CD37, CD53, CD63, CD81 (this protein), CD82 and CD151. CD81 interacts directly with immunoglobulin superfamily member 8 (IGSF8, CD316) and CD36. It forms a signal transduction complex with CD19, CD21 and Leu-13 (CD225) on the surface of the B cell. On T cells CD81 associates with CD4 and CD8 and provides a costimulatory signal with CD3.

Immunogen: Recombinant protein within human CD81 aa 34-201

Positive control: Raji cell lysate, HL-60 cell lysate, U-937 cell lysate, PC-12 cell lysate, HCT 116 cell lysate, human liver tissue, Jurkat.

Subcellular location: Cell membrane, Basolateral cell membrane.

Database links: SwissProt: P60033 Human | Q62745 Rat

Recommended Dilutions:

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

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

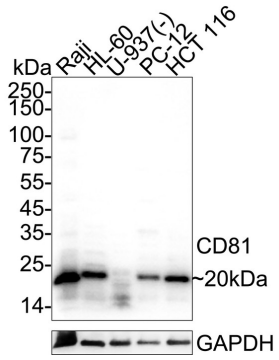

Fig1: Western blot analysis of CD81 on different lysates with Rabbit anti-CD81 antibody (HA723193) at 1/2,000 dilution.

Lane 1: Raji cell lysate
Lane 2: HL-60 cell lysate
Lane 3: U-937 cell lysate (negative)
Lane 4: PC-12 cell lysate
Lane 5: HCT 116 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 36 kDa
Observed band size: 20 kDa

Exposure time: 10 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 (HA723193) 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.

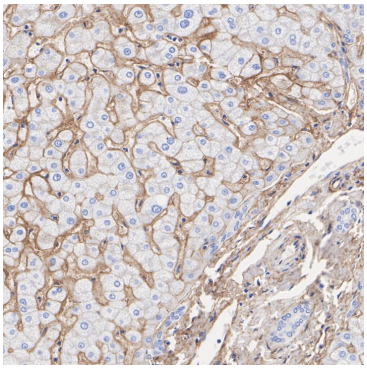

Fig2: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-CD81 antibody (HA723193) at 1/1,000 dilution.

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 (HA723193) at 1/1,000 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.

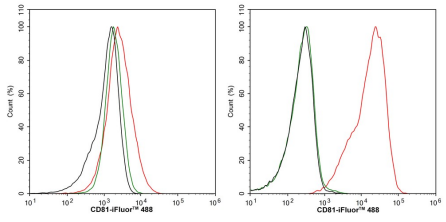

Fig3: Flow cytometric analysis of HepG2 (left, negative) and Jurkat (right, positive) cells labeling CD81.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA723193, 1/1,000) (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).

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

Background References

1. Oguri Y et al. CD81 Controls Beige Fat Progenitor Cell Growth and Energy Balance via FAK Signaling. Cell. 2020 Aug
2. Fan Y et al. Differential proteomics argues against a general role for CD9, CD81 or CD63 in the sorting of proteins into extracellular vesicles. J Extracell Vesicles. 2023 Aug