Anti-CD80 Antibody [PSH09-79]

HA723144

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, FC
Molecular Wt:	Predicted band size: 33 kDa
Clone number:	PSH09-79

Description: Involved in the costimulatory signal essential for T-lymphocyte activation. T-cell proliferation and cytokine production is induced by the binding of CD28 or CTLA-4 to this receptor.Expressed on activated B-cells, macrophages and dendritic cells.

Immunogen: Recombinant protein within human CD80 aa 21-262/288

Positive control: Raji cell lysate, HDLM-2 cell lysate, Raji.

Subcellular location: Cell membrane.

Database links: SwissProt: P33681 Human

Recommended Dilutions:

WB	1:2,000
IF-Cell	1:50
FC	1:1,000

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

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

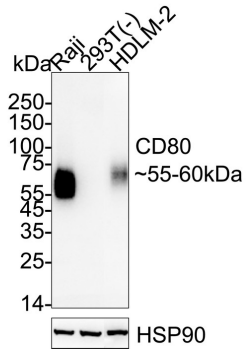

Fig1: Western blot analysis of CD80 on different lysates with Rabbit anti-CD80 antibody (HA723144) at 1/2,000 dilution.

Lane 1: Raji cell lysate (20 µg/Lane)
Lane 2: 293T cell lysate (negative) (20 µg/Lane)
Lane 3: HDLM-2 cell lysate (20 µg/Lane)

Predicted band size: 33 kDa
Observed band size: 55-60 kDa

Exposure time: 1 minute; 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 (HA723144) 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.

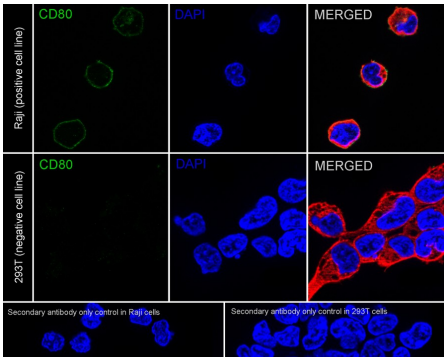

Fig2: Immunocytochemistry analysis of Raji (positive) and 293T (negative) labeling CD80 with Rabbit anti-CD80 antibody (HA723144) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS 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-CD80 antibody (HA723144) at 1/50 dilution in 1% BSA in PBST overnight at 4 ℃. 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℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

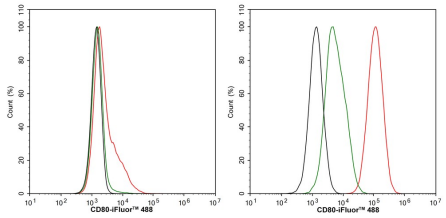

Fig3: Flow cytometric analysis of 293T (left, negative) and Raji (right, positive) cells labeling CD80.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA723144, 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. Sansom DM, Manzotti CN, Zheng Y. What's the difference between CD80 and CD86? Trends Immunol. 2003 Jun;24(6):314-9. doi: 10.1016/s1471-4906(03)00111-x. PMID: 12810107.
2. Sugiura D, Maruhashi T, Okazaki IM, Shimizu K, Maeda TK, Takemoto T, Okazaki T. Restriction of PD-1 function by cis-PD-L1/CD80 interactions is required for optimal T cell responses. Science. 2019 May 10;364(6440):558-566. doi: 10.1126/science.aav7062. Epub 2019 Apr 18. PMID: 31000591.