Anti-CD84 Antibody [JE59-27]

HA720037

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 39 kDa.
Clone number:	JE59-27

Description: Self-ligand receptor of the signaling lymphocytic activation molecule (SLAM) family. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. Activities are controlled by presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2. Can mediate natural killer (NK) cell cytotoxicity dependent on SH2D1A and SH2D1B. Increases proliferative responses of activated T-cells and SH2D1A/SAP does not seem be required for this process. Homophilic interactions enhance interferon gamma/IFNG secretion in lymphocytes and induce platelet stimulation via a SH2D1A-dependent pathway. May serve as a marker for hematopoietic progenitor cells. Required for a prolonged T-cell:B-cell contact, optimal T follicular helper function, and germinal center formation. In germinal centers involved in maintaining B-cell tolerance and in preventing autoimmunity. In mast cells negatively regulates high affinity immunoglobulin epsilon receptor signaling; independent of SH2D1A and SH2D1B but implicating FES and PTPN6/SHP-1. In macrophages enhances LPS-induced MAPK phosphorylation and NF-kappaB activation and modulates LPS-induced cytokine secretion; involving ITSM 2. Positively regulates macroautophagy in primary dendritic cells via stabilization of IRF8; inhibits TRIM21-mediated proteasomal degradation of IRF8.

Immunogen:	Synthetic peptide within human CD84 aa aa 296-345/345.
Positive control:	Raji cell lysate, THP-1 cell lysate, Daudi cell lysate, Raji, human spleen tissue.
Subcellular location:	Cell membrane.
Database links:	SwissProt: Q9UIB8 Human
Recommended Dilutions:	
WB	1:5,000
IF-Cell	1:100
IHC-P	1:100
FC	1:1,000
Storage Buffer:	1*TBS (pH7.4), 0.05% 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

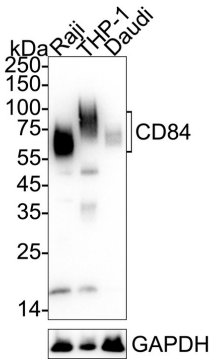

Fig1: Western blot analysis of CD84 on different lysates with Rabbit anti-CD84 antibody (HA720037) at 1/5,000 dilution.

Lane 1: Raji cell lysate
Lane 2: THP-1 cell lysate
Lane 3: Daudi cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 39 kDa
Observed band size: 60-80 kDa

Exposure time: 30 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 (HA720037) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

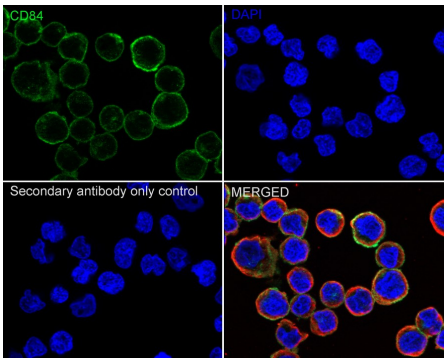

Fig2: Immunocytochemistry analysis of Raji cells labeling CD84 with Rabbit anti-CD84 antibody (HA720037) at 1/100 dilution.

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-CD84 antibody (HA720037) at 1/100 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.

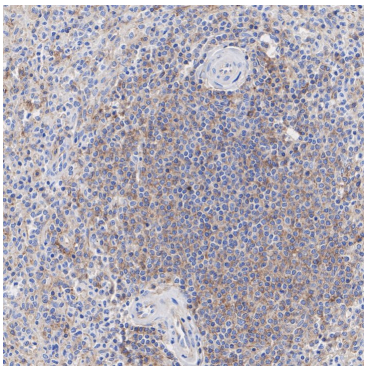

Fig3: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-CD84 antibody (HA720037) at 1/100 dilution.

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 (HA720037) at 1/100 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.

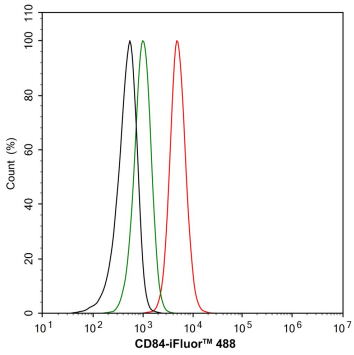

Fig4: Flow cytometric analysis of Raji cells labeling CD84.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA720037, 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. Schuhmann MK. et. al. CD84 Links T Cell and Platelet Activity in Cerebral Thrombo-Inflammation in Acute Stroke. Circ Res. 2020 Sep
2. Cuenca M. et. al. CD84 cell surface signaling molecule: An emerging biomarker and target for cancer and autoimmune disorders. Clin Immunol. 2019 Jul