Anti-CD8 alpha Antibody [PSH19-81]

HA724105

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Rat
Applications:	WB, IHC-P, IF-Tissue, FC
Molecular Wt:	Predicted band size: 26 kDa
Clone number:	PSH19-81

Description: T-cell surface glycoprotein CD8 alpha chain (Cluster of Differentiation 8a), is a protein encoded by CD8A gene. The CD8 protein is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. The CD8, acting as a coreceptor, and the T-cell receptor on the T lymphocyte recognize antigen displayed by an antigen-presenting cell (APC) in the context of class I MHC molecules. The functional coreceptor is either a homodimer composed of two alpha chains, or a heterodimer composed of one alpha and one beta chain. Both alpha and beta chains share significant homology to variable domain of immunoglobulin light chains. This gene encodes the CD8 alpha chain isoforms. Two alternative transcripts encoding distinct isoforms, one membrane associated and one secreted, have been identified.

Positive control: MOLT-4 cell lysate, human appendix tissue, human spleen tissue, human tonsil tissue, rat spleen tissue, MOLT-4.

Subcellular location: Cell membrane; Secreted.

Database links: SwissProt: P01732 Human | P07725 Rat

Recommended Dilutions:

WB	1:5,000
IHC-P	1:500-1:2,000
IF-Tissue	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

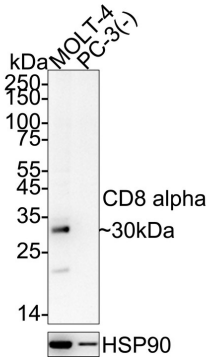

Fig1: Western blot analysis of CD8 alpha on different lysates with Rabbit anti-CD8 alpha antibody (HA724105) at 1/5,000 dilution.

Lane 1: MOLT-4 cell lysate
Lane 2: PC-3 cell lysate (negative)

Lysates/proteins at 10 µg/Lane.

Predicted band size: 26 kDa
Observed band size: 30 kDa

Exposure time: 3 minutes; 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 (HA724105) 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.

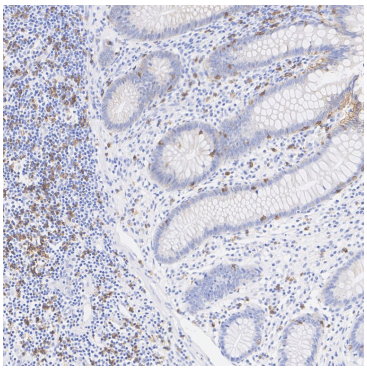

Fig2: Immunohistochemical analysis of paraffin-embedded human appendix tissue with Rabbit anti-CD8 alpha antibody (HA724105) at 1/2,000 dilution.

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 (HA724105) 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.

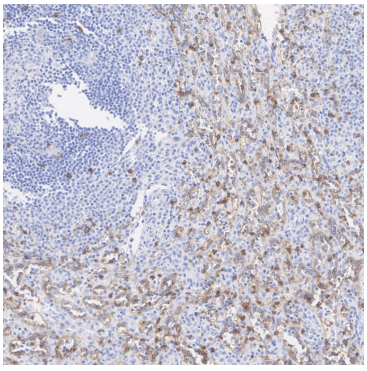

Fig3: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-CD8 alpha antibody (HA724105) at 1/2,000 dilution.

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 (HA724105) 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.

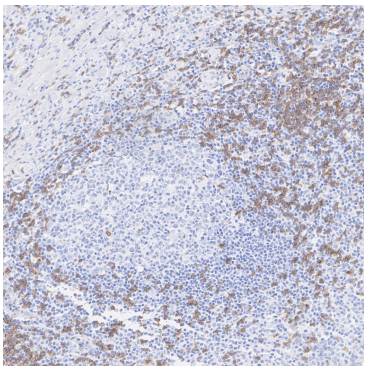

Fig4: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-CD8 alpha antibody (HA724105) at 1/2,000 dilution.

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 (HA724105) 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.

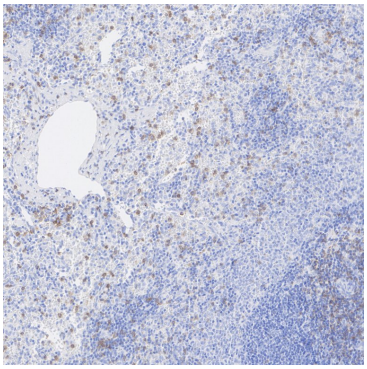

Fig5: Immunohistochemical analysis of paraffin-embedded rat spleen tissue with Rabbit anti-CD8 alpha antibody (HA724105) at 1/500 dilution.

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 (HA724105) at 1/500 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.

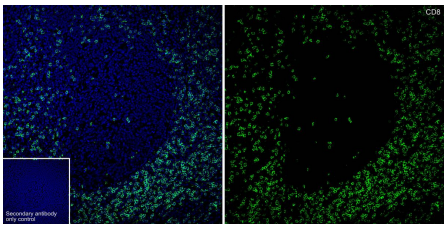

Fig6: Application: IF-Tissue

Species: Human

Site: tonsil

Sample: Paraffin-embedded section

Antibody concentration: 1/1,000

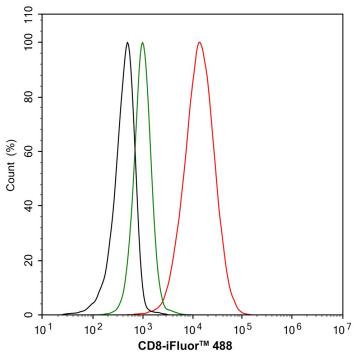

Fig7: Flow cytometric analysis of MOLT-4 cells labeling CD8 alpha.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA724105, 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).

Background References

1. Dolina JS et al. CD8(+) T Cell Exhaustion in Cancer. Front Immunol. 2021 Jul
2. Reina-Campos M et al. CD8(+) T cell metabolism in infection and cancer. Nat Rev Immunol. 2021 Nov