Anti-CXCL13 Antibody [PSH04-34]

HA722117

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 13 kDa
Clone number:	PSH04-34

Description: Chemokine (C-X-C motif) ligand 13 (CXCL13), also known as B lymphocyte chemoattractant (BLC) or B cell-attracting chemokine 1 (BCA-1), is a protein ligand that in humans is encoded by the CXCL13 gene. CXCL13 is a small chemokine belonging to the CXC chemokine family. As its other names suggest, this chemokine is selectively chemotactic for B cells belonging to both the B-1 and B-2 subsets, and elicits its effects by interacting with chemokine receptor CXCR5. CXCL13 and its receptor CXCR5 control the organization of B cells within follicles of lymphoid tissues and is expressed highly in the liver, spleen, lymph nodes, and gut of humans. The gene for CXCL13 is located on human chromosome 4 in a cluster of other CXC chemokines. In T lymphocytes, CXCL13 expression is thought to reflect a germinal center origin of the T cell, particularly a subset of T cells called follicular B helper T cells (or TFH cells). Hence, expression of CXCL13 in T-cell lymphomas, such as angioimmunoblastic T-cell lymphoma, is thought to reflect a germinal center origin of the neoplastic T-cells.

Immunogen: Recombinant protein within human CXCL13 aa 1-109 / 109.

Positive control: HeLa transfected with CXCL13, human appendix tissue, human tonsil tissue, human angioimmunoblastic T-cell lymphoma tissue.

Subcellular location: Secreted.

Database links: SwissProt: O43927 Human

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:400
IHC-P	1:100-1:500

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

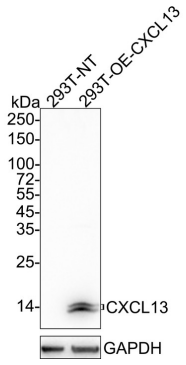

Fig1: Western blot analysis of CXCL13 on different lysates with Rabbit anti-CXCL13 antibody (HA722117) at 1/1,000 dilution.

Lane 1: 293T-NT cell lysate
Lane 2: 293T-OE-CXCL13 cell lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 13 kDa
Observed band size: 12/13 kDa

Exposure time: 30 seconds;

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 (HA722117) at 1/1,000 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.

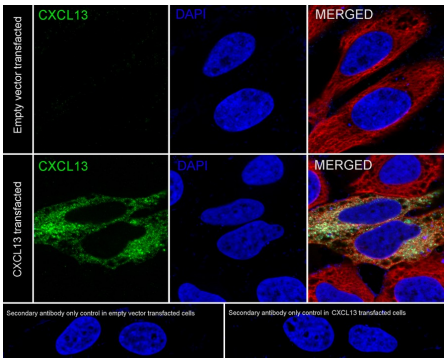

Fig2: Immunocytochemistry analysis of HeLa transfected with or without CXCL13 cells labeling CXCL13 with Rabbit anti-CXCL13 antibody (HA722117) at 1/400 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 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-CXCL13 antibody (HA722117) at 1/400 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 (M1305-2, 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.

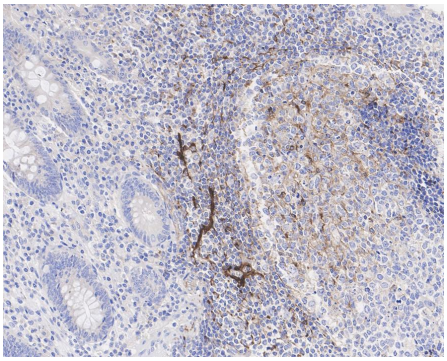

Fig3: Immunohistochemical analysis of paraffin-embedded human appendix tissue with Rabbit anti-CXCL13 antibody (HA722117) at 1/100 dilution.

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 (HA722117) 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.

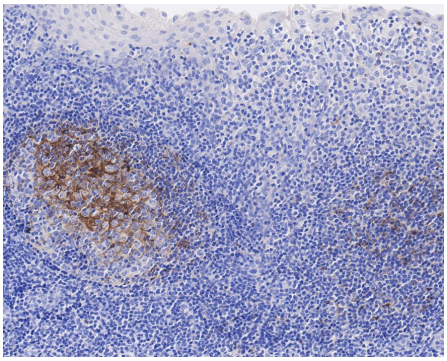

Fig4: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-CXCL13 antibody (HA722117) at 1/500 dilution.

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 (HA722117) 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.

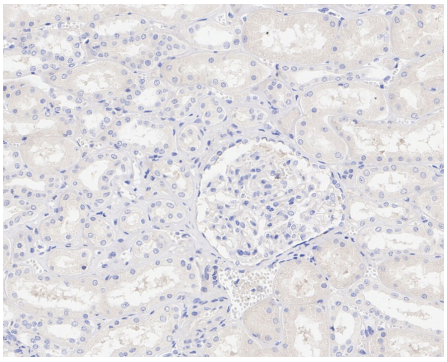

Fig5: Immunohistochemical analysis of paraffin-embedded human kidney tissue (negative) with Rabbit anti-CXCL13 antibody (HA722117) at 1/100 dilution.

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 (HA722117) 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.

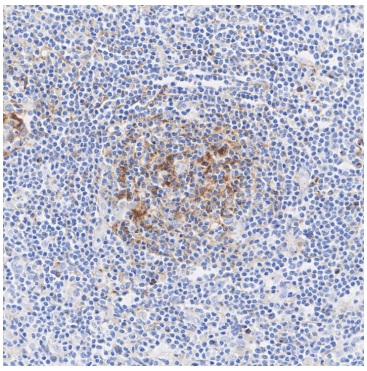

Fig6: Immunohistochemical analysis of paraffin-embedded human angioimmunoblastic T-cell lymphoma tissue with Rabbit anti-CXCL13 antibody (HA722117) at 1/500 dilution.

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 (HA722117) 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.

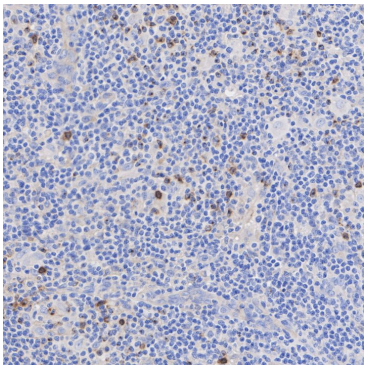

Fig7: Immunohistochemical analysis of paraffin-embedded human angioimmunoblastic T-cell lymphoma tissue with Rabbit anti-CXCL13 antibody (HA722117) at 1/100 dilution.

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 (HA722117) 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.

Background References

1. Liu B et al. Single-cell meta-analyses reveal responses of tumor-reactive CXCL13+ T cells to immune-checkpoint blockade. Nat Cancer. 2022 Sep
2. Pan Z et al. Role of the CXCL13/CXCR5 Axis in Autoimmune Diseases. Front Immunol. 2022 Mar