

Anti-CCXCR1/XCR1 Antibody Picoband®

Catalog Number: A04185-1

About XCR1

The protein encoded by this gene is a chemokine receptor belonging to the G protein-coupled receptor superfamily. The family members are characterized by the presence of 7 transmembrane domains and numerous conserved amino acids. This receptor is most closely related to RBS11 and the MIP1-alpha/RANTES receptor. It transduces a signal by increasing the intracellular calcium ions level. The viral macrophage inflammatory protein-II is an antagonist of this receptor and blocks signaling. Several alternatively spliced transcript variants encoding the same protein have been found for this gene.

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Overview

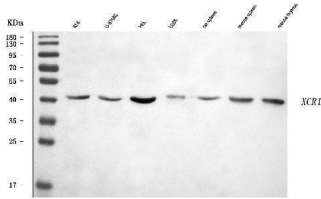
Product Name	Anti-CCXCR1/XCR1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CCXCR1/XCR1 Antibody Picoband® catalog # A04185-1. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P46094

Technical Details

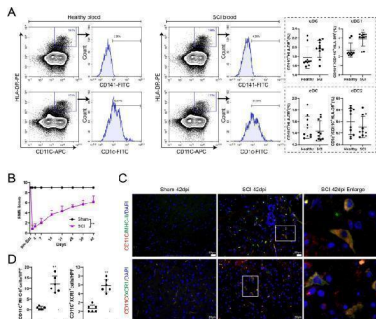
Immunogen	E.coli-derived human CCXCR1/XCR1 recombinant protein (Position: F246-N274).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Mouse, Rat ELISA, 0.1-0.5 ug/ml, -

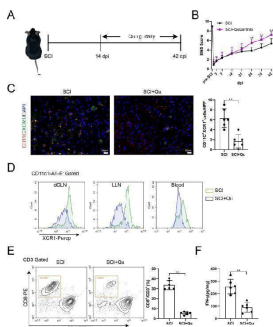
Anti-CCXCR1/XCR1 Antibody Picoband® (A04185-1) Images



Western blot analysis of CCXCR1/XCR1 using anti-CCXCR1/XCR1 antibody (A04185-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human RT4 whole cell lysates, Lane 2: human U-87MG whole cell lysates, Lane 3: human HEL whole cell lysates, Lane 4: human U2OS whole cell lysates, Lane 5: rat spleen tissue lysates, Lane 6: mouse spleen tissue lysates, Lane 7: mouse thymus tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CCXCR1/XCR1 antigen affinity purified polyclonal antibody (Catalog # A04185-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CCXCR1/XCR1 at approximately 42 kDa. The expected band size for CCXCR1/XCR1 is at 39 kDa.

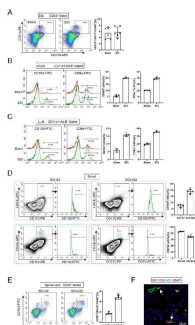


cDC1s in SCI patients and mouse model of SCI. A PBMCs were collected from 10 healthy volunteers and 10 SCI patients. Identification of cDC1s and cDC2s subsets was performed by flow cytometry. CD11c + HLA-DR + represents cDCs, while CD141 + represents sDC1s and CD11c + represents cDC2 cells. Difference was calculated by Mann-Whitney U test. ** P < 0.01 vs. healthy group. B Mice were divided into sham (n = 6) and SCI (n = 6) groups. BMS score detection was performed. Difference was calculated by two-way ANOVA test. ** P < 0.01 vs. sham group. C-D The positive expressions of MHCII and XCR1 in spinal cord tissues were detected by IF assay. The difference was calculated by unpaired two-tailed T-test. ** P < 0.01 vs. sham group. SCI : spinal cord injury; dpi : days post-injury; cDC : conventional dendritic cell Index in PubMed under a CC BY license. PMID: 39901071

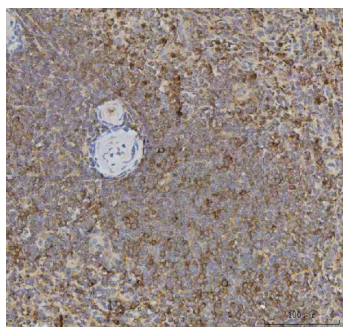


cDC1 depletion reduces CD8 + T cell infiltration after SCI injury. A Mice were divided into SCI (n = 6) and SCI + Qu (n = 6) groups. Qu administration was started on day 14 after surgery. B BMS score was determined. The difference was calculated by unpaired two-tailed T-test. ** P < 0.01 vs. SCI group. C Positive expression of XCR1 in spinal cord tissues was detected by IF assay. The difference was calculated by unpaired two-tailed T-test. ** P < 0.01. D The results of flow cytometry of XCR1 + cDCs in lymph nodes and blood. The cDC population was expressed as CD11c and I-A/I-E (MHCII) double positive, and XCR1 + represents XCR1 + cDCs. E The proportion of CD8 + T cells in spinal cord tissues was

determined by flow cytometry. CD3 + T cells were circled with CD3 gate, and further CD3 + CD8 + T cells were analyzed. The difference was calculated by unpaired two-tailed T-test. ** P < 0.01 vs. SCI group. N = 6. F ELISA was used to detect IFN-gamma levels in spinal cord tissues. The difference was calculated by unpaired two-tailed T-test. ** P < 0.01 vs. SCI group. N = 6. dpi : days post-injury; Qu : Quizartinib Index in PubMed under a CC BY license. PMID: 39901071

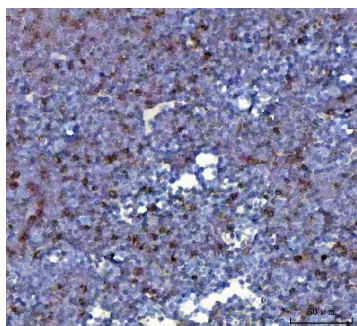


Excess cDC1s in non-lymphoid tissues in LNs of SCI mice is due to migration of cDC1s from the spinal cord. A Leukocyte (CD45 +) and pre-DC subsets in bone marrow of sham and SCI groups were detected by flow cytometry. Immune cells were circled by CD45 + and murine pre-DCs were further detected by CD135 + CD11c + . The difference was calculated by unpaired two-tailed T-test. N = 6. B-C Non-lymphoid tissue cDC1 (CD11c + I-A/I-E + CD103 +) proportion and lymphoid-resident cDC1 (CD11c + I-A/I-E + CD8alpha +) subsets in dLN and LLN of sham and SCI groups were detected by flow cytometry. The difference was calculated by unpaired two-tailed T-test. ** P < 0.01 vs. SCI group. N = 3. D cDC1s (CD11c + I-A/I-E + CD103 +) and cDC2s (CD11c + I-A/I-E + CD11b +) subsets in the blood of SCI-3 dpi and SCI-42 dpi groups were detected by flow cytometry. The difference was calculated by unpaired two-tailed T-test. ** P < 0.01 vs. SCI group. N = 6. E cDC1 subsets (CD45 + XCR1 + CD103 +) in spinal cord tissues of SCI-3 dpi and SCI-42 dpi groups were detected by flow cytometry. The difference was calculated by unpaired two-tailed T-test. ** P < 0.01 vs. SCI group. N = 6. F The positive expressions of CD11c and LYVE-1 in the spinal cord tissues of SCI group mice were detected by IF assay. BM : bone marrow; dLN : deep cervical lymph nodes; LLN : lumbar lymph nodes Index in PubMed under a CC BY license. PMID: 39901071

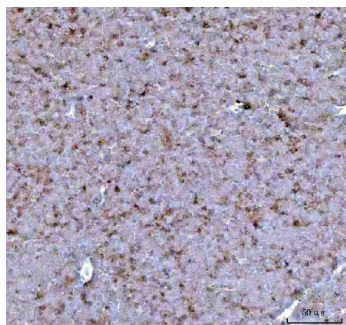


IHC analysis of CCXCR1/XCR1 using anti-CCXCR1/XCR1 antibody (A04185-1). CCXCR1/XCR1 was detected in a paraffin-embedded section of human spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CCXCR1/XCR1 Antibody (A04185-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IHC analysis of CCXCR1/XCR1 using anti-CCXCR1/XCR1 antibody (A04185-1). CCXCR1/XCR1 was detected in a paraffin-embedded section of mouse thymus tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CCXCR1/XCR1 Antibody



(A04185-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of CCXCR1/XCR1 using anti-CCXCR1/XCR1 antibody (A04185-1). CCXCR1/XCR1 was detected in a paraffin-embedded section of rat thymus tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CCXCR1/XCR1 Antibody (A04185-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Anti-CCXCR1/XCR1 Antibody

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