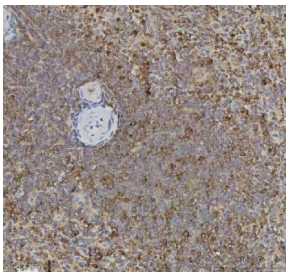
# XCR1 Antibody / Chemokine XC receptor 1 (RQ7347)

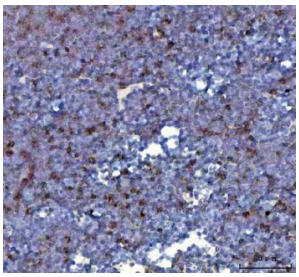
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ7347 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

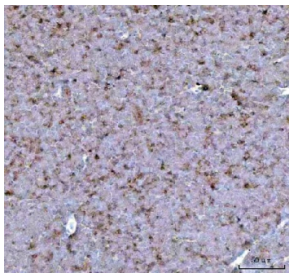
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | P46094 |
| **RRID** | AB_3752867 |
| **Localization** | Cell membrane |
| **Applications** | Western blot: 0.5-1ug/ml<br>Immunohistochemistry (FFPE): 2-5ug/ml<br>Direct ELISA: 0.1-0.5ug/ml |
| **Limitations** | This XCR1 Antibody / Chemokine XC receptor 1 is available for research use only. |



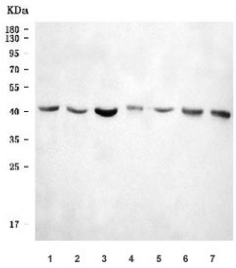
XCR1 Antibody Human Spleen IHC. Immunohistochemical analysis of FFPE human spleen tissue following heat-induced epitope retrieval in pH8 EDTA buffer. Tissue sections were incubated with XCR1 Antibody, followed by an HRP-conjugated secondary antibody and DAB chromogen for visualization. Membranous and cytoplasmic staining is observed in scattered immune cells throughout the splenic tissue, consistent with the restricted expression of XCR1 on specialized dendritic cell subsets involved in antigen cross-presentation and immune surveillance. This staining pattern demonstrates that this XCR1 Antibody, a Chemokine XC Receptor 1 Antibody, is suitable for detecting endogenous XCR1 expression in human FFPE lymphoid tissue by immunohistochemistry.



XCR1 Antibody Mouse Thymus IHC. Immunohistochemical analysis of FFPE mouse thymus tissue following heat-induced epitope retrieval in pH8 EDTA buffer. Tissue sections were incubated with XCR1 Antibody, followed by an HRP-conjugated secondary antibody and DAB chromogen for visualization. Scattered membranous and cytoplasmic staining is observed in thymic immune cells, consistent with the restricted expression of XCR1 on specialized dendritic cell populations involved in antigen cross-presentation and T-cell activation. This staining pattern demonstrates that this XCR1 Antibody, a Chemokine XC Receptor 1 Antibody, is suitable for detecting endogenous XCR1 expression in mouse FFPE lymphoid tissue by immunohistochemistry.



XCR1 Antibody Rat Thymus IHC. Immunohistochemical analysis of FFPE rat thymus tissue following heat-induced epitope retrieval in pH8 EDTA buffer. Tissue sections were incubated with XCR1 Antibody, followed by an HRP-conjugated secondary antibody and DAB chromogen for visualization. Scattered membranous and cytoplasmic staining is observed in thymic immune cells, consistent with the restricted expression of XCR1 on specialized dendritic cell populations that mediate antigen cross-presentation and adaptive immune responses. This staining pattern demonstrates that this XCR1 Antibody, a Chemokine XC Receptor 1 Antibody, is suitable for detecting endogenous XCR1 expression in rat FFPE lymphoid tissue by immunohistochemistry.




XCR1 Antibody Human, Mouse and Rat Immune Tissue WB. Western blot analysis of XCR1 was performed using lysates from human RT4, U-87 MG, HEL, and U-2 OS cells, rat spleen, mouse spleen, and mouse thymus. Lane 1: human RT4. Lane 2: human U-87 MG. Lane 3: human HEL. Lane 4: human U-2 OS. Lane 5: rat spleen. Lane 6: mouse spleen. Lane 7: mouse thymus. A distinct band is detected at approximately 39 kDa in each sample, consistent with the predicted molecular weight of XCR1. These results demonstrate that this XCR1 Antibody, a Chemokine XC Receptor 1 Antibody, specifically detects endogenous XCR1 across multiple human cell lines and rodent lymphoid tissues by Western blot.

## Description

XCR1 Antibody / Chemokine XC Receptor 1 Antibody recognizes XCR1, a G protein-coupled chemokine receptor that serves as the exclusive receptor for the chemokines XCL1 and XCL2. Unlike most chemokine receptors, which bind multiple ligands, XCR1 exhibits remarkable ligand specificity and plays a specialized role in immune surveillance. The receptor is predominantly expressed by a subset of conventional dendritic cells that excel at antigen cross-presentation, enabling efficient activation of cytotoxic CD8-positive T cells. Through this highly specialized function, XCR1 contributes to adaptive immune responses against viral infections, intracellular pathogens, and tumors. An XCR1 Antibody is widely used to identify cross-presenting dendritic cells and to investigate mechanisms of immune regulation and antigen presentation.

XCR1 signaling regulates dendritic cell migration, positioning within lymphoid tissues, and communication with natural killer cells and activated CD8-positive T lymphocytes. Binding of XCL1 released by these immune cells promotes recruitment and functional coordination of XCR1-positive dendritic cells, strengthening antigen cross-presentation and enhancing cellular immune responses. This receptor-ligand axis has emerged as a critical component of immune surveillance by linking innate and adaptive immunity. Consequently, an XCR1 Antibody is an important tool for studying dendritic cell biology, chemokine signaling, T-cell priming, and immune cell interactions within lymphoid organs and peripheral tissues.

XCR1 has attracted increasing interest in cancer immunology because XCR1-positive dendritic cells are essential for generating effective anti-tumor cytotoxic T-cell responses. Strategies that target antigens directly to XCR1-expressing dendritic cells are being investigated to improve vaccine efficacy and cancer immunotherapy. Beyond oncology, XCR1 has been studied in infectious disease, autoimmune disorders, inflammatory conditions, and transplant immunology,

where regulation of antigen presentation influences immune activation and tolerance. As understanding of dendritic cell subsets continues to expand, an XCR1 Antibody has become a valuable reagent for characterizing immune cell populations and evaluating immune responses in both experimental and translational research.

XCR1 is routinely analyzed using Western blot, immunohistochemistry, immunofluorescence, flow cytometry, and immunoprecipitation to evaluate protein expression, tissue localization, and receptor biology. These complementary applications enable investigators to examine XCR1 expression in immune tissues, characterize dendritic cell subsets, and study chemokine receptor signaling under physiological and pathological conditions. NSJ Bioreagents provides carefully validated antibodies to support these applications across multiple experimental systems. An XCR1 Antibody / Chemokine XC Receptor 1 Antibody is a valuable research reagent for investigating dendritic cell biology, antigen cross-presentation, chemokine signaling, immune surveillance, and the cellular mechanisms that coordinate adaptive immune responses.

Explore our Immunology Antibodies page to discover validated antibodies for XCR1 and other proteins involved in dendritic cell biology, antigen cross-presentation, chemokine signaling, immune surveillance, and adaptive immune responses.

## Application Notes

Optimal dilution of the XCR1 Antibody / Chemokine XC receptor 1 should be determined by the researcher.

## Immunogen

Recombinant human protein (amino acids F246-N274) was used as the immunogen for the XCR1 antibody.

## Storage

After reconstitution, the XCR1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

## Alternate Names

XCR1 antibody, Chemokine XC Receptor 1 antibody, Lymphotactin Receptor antibody, GPR5 antibody, CCXCR1 antibody


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