

**CXCR4 Antibody(N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP19500A**

**Specification**

**CXCR4 Antibody(N-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P61073</a>
Other Accession	<a href="#">008565</a> , <a href="#">Q764M9</a> , <a href="#">P70658</a> , <a href="#">Q28474</a> , <a href="#">P25930</a> , <a href="#">NP_001008540.1</a> , <a href="#">Q28553</a>
Reactivity	Human
Predicted	Bovine, Monkey, Mouse, Pig, Rat, Sheep
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	50-79

**CXCR4 Antibody(N-term) - Additional Information**

**Gene ID 7852**

**Other Names**

C-X-C chemokine receptor type 4, CXC-R4, CXCR-4, FB22, Fusin, HM89, LCR1, Leukocyte-derived seven transmembrane domain receptor, LESTR, Lipopolysaccharide-associated protein 3, LAP-3, LPS-associated protein 3, NPYRL, Stromal cell-derived factor 1 receptor, SDF-1 receptor, CD184, CXCR4

**Target/Specificity**

This CXCR4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 50-79 amino acids from the N-terminal region of human CXCR4.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CXCR4 Antibody(N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**CXCR4 Antibody(N-term) - Protein Information**

## Name CXCR4

**Function** Receptor for the C-X-C chemokine CXCL12/SDF-1 that transduces a signal by increasing intracellular calcium ion levels and enhancing MAPK1/MAPK3 activation (PubMed:[10452968](#), PubMed:[18799424](#), PubMed:[24912431](#), PubMed:[28978524](#)). Involved in the AKT signaling cascade (PubMed:[24912431](#)). Plays a role in regulation of cell migration, e.g. during wound healing (PubMed:[28978524](#)). Acts as a receptor for extracellular ubiquitin; leading to enhanced intracellular calcium ions and reduced cellular cAMP levels (PubMed:[20228059](#)). Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes (PubMed:[11276205](#)). Involved in hematopoiesis and in cardiac ventricular septum formation. Also plays an essential role in vascularization of the gastrointestinal tract, probably by regulating vascular branching and/or remodeling processes in endothelial cells. Involved in cerebellar development. In the CNS, could mediate hippocampal-neuron survival (By similarity).

## Cellular Location

Cell membrane; Multi-pass membrane protein. Cell junction. Early endosome. Late endosome. Lysosome. Note=In unstimulated cells, diffuse pattern on plasma membrane. On agonist stimulation, colocalizes with ITCH at the plasma membrane where it becomes ubiquitinated. In the presence of antigen, distributes to the immunological synapse forming at the T- cell-APC contact area, where it localizes at the peripheral and distal supramolecular activation cluster (SMAC)

## Tissue Location

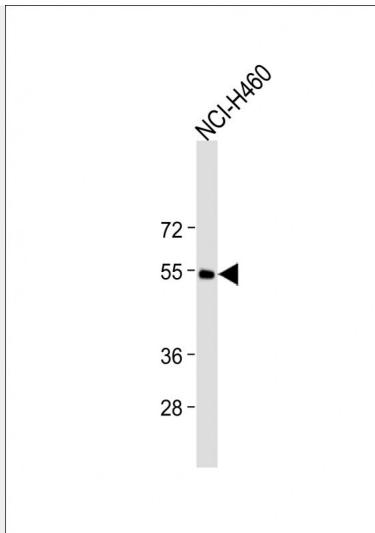
Expressed in numerous tissues, such as peripheral blood leukocytes, spleen, thymus, spinal cord, heart, placenta, lung, liver, skeletal muscle, kidney, pancreas, cerebellum, cerebral cortex and medulla (in microglia as well as in astrocytes), brain microvascular, coronary artery and umbilical cord endothelial cells Isoform 1 is predominant in all tissues tested

## CXCR4 Antibody(N-term) - Protocols

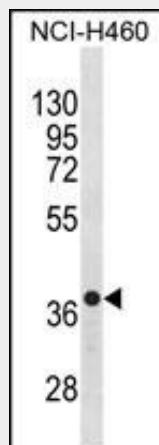
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## CXCR4 Antibody(N-term) - Images



All lanes: Anti-CXCR4 Antibody (N-term) at 1:2000 dilution + NCI-H460 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 50KDa Blocking/Dilution buffer: 5% NFDM/TBST.



CXCR4 Antibody (N-term) (Cat. #AP19500a) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the CXCR4 antibody detected the CXCR4 protein (arrow).

#### **CXCR4 Antibody(N-term) - Background**

This gene encodes a CXC chemokine receptor specific for stromal cell-derived factor-1. The protein has 7 transmembrane regions and is located on the cell surface. It acts with the CD4 protein to support HIV entry into cells and is also highly expressed in breast cancer cells. Mutations in this gene have been associated with WHIM (warts, hypogammaglobulinemia, infections, and myelokathexis) syndrome. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq].

#### **CXCR4 Antibody(N-term) - References**

Hammad, M.M., et al. J. Biol. Chem. 285(45):34653-34664(2010)  
Wang, A., et al. Arthritis Rheum. 62(11):3436-3446(2010)  
Cheng, M., et al. Circ. Res. 107(9):1083-1093(2010)

Sanematsu, F., et al. Circ. Res. 107(9):1102-1105(2010)

O'Hayre, M., et al. PLoS ONE 5 (7), E11716 (2010) :

**CXCR4 Antibody(N-term) - Citations**

- [Migration ability and Toll-like receptor expression of human mesenchymal stem cells improves significantly after three-dimensional culture.](#)
- [Regulation of CXCR4-mediated invasion by DARPP-32 in gastric cancer cells.](#)