

**CXCR4 antibody - N-terminal region**  
**Rabbit Polyclonal Antibody**  
**Catalog # AI10012****Specification****CXCR4 antibody - N-terminal region - Product Information**

Application	FC, WB, IHC
Primary Accession	<a href="#">P61073</a>
Other Accession	<a href="#">P61073</a> , <a href="#">NP_003458</a> , <a href="#">NM_003467</a>
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Horse
Predicted	Human, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40 kDa KDa

**CXCR4 antibody - N-terminal region - Additional Information****Gene ID 7852**

Alias Symbol	CD184, D2S201E, FB22, HM89, HSY3RR, LAP3, LCR1, LESTR, NPY3R, NPYR, NPYRL, NPY3R, WHIM
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**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**

CXCR4 is 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. 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.

**Format**

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

**Reconstitution & Storage**

Add 50 ul of distilled water. Final anti-CXCR4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.

**Precautions**

CXCR4 antibody - N-terminal region is for research use only and not for use in diagnostic or

therapeutic procedures.

## CXCR4 antibody - N-terminal region - 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:<a href="http://www.uniprot.org/citations/10452968" target="\_blank">10452968</a>, PubMed:<a href="http://www.uniprot.org/citations/18799424" target="\_blank">18799424</a>, PubMed:<a href="http://www.uniprot.org/citations/24912431" target="\_blank">24912431</a>, PubMed:<a href="http://www.uniprot.org/citations/28978524" target="\_blank">28978524</a>). Involved in the AKT signaling cascade (PubMed:<a href="http://www.uniprot.org/citations/24912431" target="\_blank">24912431</a>). Plays a role in regulation of cell migration, e.g. during wound healing (PubMed:<a href="http://www.uniprot.org/citations/28978524" target="\_blank">28978524</a>). Acts as a receptor for extracellular ubiquitin; leading to enhanced intracellular calcium ions and reduced cellular cAMP levels (PubMed:<a href="http://www.uniprot.org/citations/20228059" target="\_blank">20228059</a>). Binds bacterial lipopolysaccharide (LPS) et mediates LPS-induced inflammatory response, including TNF secretion by monocytes (PubMed:<a href="http://www.uniprot.org/citations/11276205" target="\_blank">11276205</a>). 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 ITC1 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

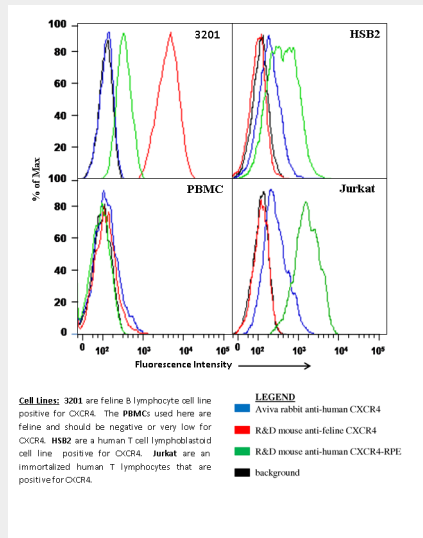
Expressed in numerous tissues, such as peripheral blood leukocytes, spleen, thymus, spinal cord, heart, placenta, lung, liver, skeletal muscle, kidney, pancreas, cerebellum, cerebral cortex and medulla (in microglia as well as in astrocytes), brain microvascular, coronary artery and umbilical cord endothelial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

## CXCR4 antibody - N-terminal region - Protocols

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

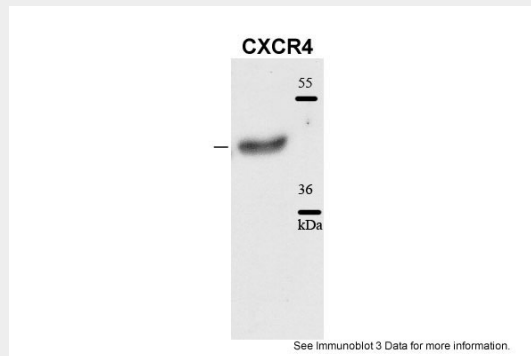
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## CXCR4 antibody - N-terminal region - Images

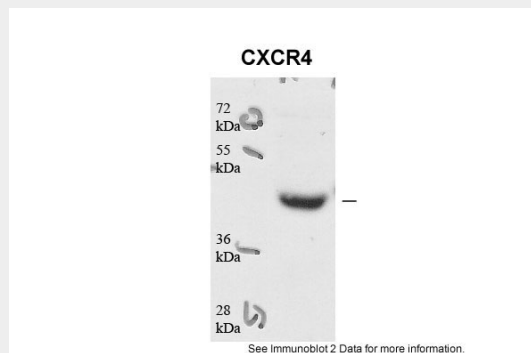


CXCR4 antibody - N-terminal region (AI10012) in Human HMEC-1, A549 cells using Flow Cytometry

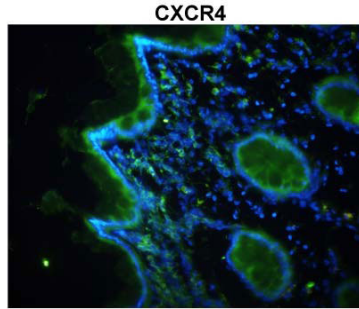
Sample Type: HMEC-1 and A549 cells



CXCR4 antibody - N-terminal region (AI10012) in Human 721\_B cells using Western Blot  
 CXCR4 antibody - N-terminal region (AI10012) validated by WB using 721\_B cell lysate at 0.2-1 µg/ml.

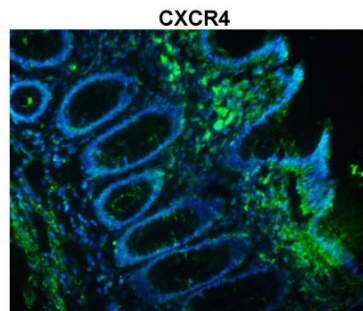


CXCR4 antibody - N-terminal region (AI10012) in Human endothelial cells using Western Blot  
 CXCR4 antibody - N-terminal region (AI10012) validated by WB using human microvascular endothelial cells (25ug) at 1:1000.



See Immunohistochemistry 1 Data and Customer Feedback lab for more information.

CXCR4 antibody - N-terminal region (AI10012) in Human HMEC-1, A549 cells using Immunohistochemistry with HMEC-1 and A549 cells tissue



See Immunohistochemistry 1 Data and Customer Feedback lab for more information.

CXCR4 antibody - N-terminal region (AI10012) in Human HMEC-1, A549 cells using Immunohistochemistry

Sample Type: human colon tissues infected ex-vivo with HIV-1

Green: Primary

Blue: DAPI

Primary Dilution: 1:100

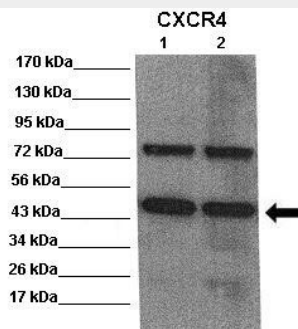
Secondary Antibody: Donkey anti-Rabbit AF 488

Secondary Dilution: 1:500

Image

Submitted by: Chiara Foglieni

San Raffaele Scientific Institute, Milan, Italy



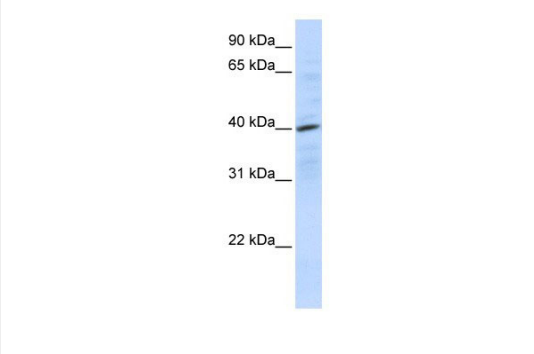
CXCR4 antibody - N-terminal region (AI10012) in mouse brain extract cells using Western Blot WB Suggested Anti-CXCR4 Antibody

Positive Control: Lane 1: 20ug mouse brain extract Lane 2: 20ug mouse brain extract

Primary Antibody Dilution : 1:500

Secondary Antibody : Anti rabbit-HRP

Secondary Antibody Dilution : 1:5,000  
Submitted by: Scott Wilson, University of Alabama at Birmingham



90 kDa  
65 kDa  
40 kDa  
31 kDa  
22 kDa

CXCR4 antibody - N-terminal region (AI10012) in Human 721\_B cells using Western Blot  
WB Suggested Anti-CXCR4 Antibody Titration: 0.2-1  $\mu$ g/ml  
ELISA Titer: 1:312500  
Positive Control: 721\_B cell lysate

#### **CXCR4 antibody - N-terminal region - Background**

This is a rabbit polyclonal antibody against CXCR4. It was validated on Western Blot using a cell lysate as a positive control. Abgent strives to provide antibodies covering each member of a whole protein family of your interest. We also use our best efforts to provide you antibodies recognize various epitopes of a target protein. For availability of antibody needed for your experiment, please inquire ([sales@abgent.com](mailto:sales@abgent.com)).