

**CXCR4 Antibody (Cytoplasmic Domain)  
Rabbit Polyclonal Antibody  
Catalog # ALS10343****Specification**

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**CXCR4 Antibody (Cytoplasmic Domain) - Product Information**

Application	IHC
Primary Accession	<a href="#">P61073</a>
Reactivity	Human, Mouse, Hamster, Monkey, Pig, Sheep, Horse, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40kDa KDa

**CXCR4 Antibody (Cytoplasmic Domain) - 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**

Human CXCR4. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

**Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

**Precautions**

CXCR4 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

**CXCR4 Antibody (Cytoplasmic Domain) - 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](http://www.uniprot.org/citations/10452968), PubMed: [18799424](http://www.uniprot.org/citations/18799424), PubMed: [24912431](http://www.uniprot.org/citations/24912431), PubMed: [28978524](http://www.uniprot.org/citations/28978524)). Involved in the AKT signaling cascade (PubMed: [24912431](http://www.uniprot.org/citations/24912431)). 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 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

#### **Volume**

50 µl

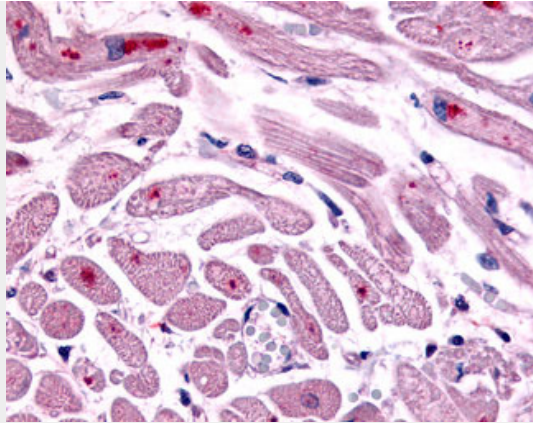
#### **CXCR4 Antibody (Cytoplasmic Domain) - Protocols**

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 (Cytoplasmic Domain) - Images**





Anti-CXCR4 antibody ALS10343 IHC of human heart.

### **CXCR4 Antibody (Cytoplasmic Domain) - Background**

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. Acts as a receptor for extracellular ubiquitin; leading to enhanced intracellular calcium ions and reduced cellular cAMP levels. 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. Acts as a coreceptor (CD4 being the primary receptor) for HIV-1 X4 isolates and as a primary receptor for some HIV-2 isolates. Promotes Env-mediated fusion of the virus. Binds bacterial lipopolysaccharide (LPS) et mediates LPS-induced inflammatory response, including TNF secretion by monocytes.

### **CXCR4 Antibody (Cytoplasmic Domain) - References**

- Herzog H.,et al.DNA Cell Biol. 12:465-471(1993).
- Jazin E.E.,et al.Regul. Pept. 47:247-258(1993).
- Federspiel B.,et al.Genomics 16:707-712(1993).
- Loetscher M.,et al.J. Biol. Chem. 269:232-237(1994).
- Nomura H.,et al.Int. Immunol. 5:1239-1249(1993).