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CXCR4 Antibody (Cytoplasmic Domain)

Rabbit Polyclonal Antibody

Catalog # ALS10344

Specification

CXCR4 Antibody (Cytoplasmic Domain) - Product Information

Application	**IHC-P**
Primary Accession	P61073
Reactivity	**Human, Mouse, Rabbit, Hamster, Monkey, Chicken**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**40kDa KDa**
Dilution	**IHC-P~~N/A**

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, PubMed:18799424, PubMed:24912431, PubMed:28978524). Involved in the AKT signaling cascade (PubMed:<a href="http://www.uniprot.org/citations/24912431"

target="_blank">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) et 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

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 Cytomety
- Cell Culture

CXCR4 Antibody (Cytoplasmic Domain) - Images

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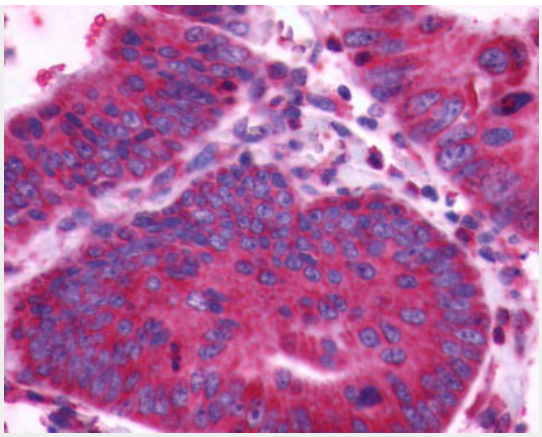
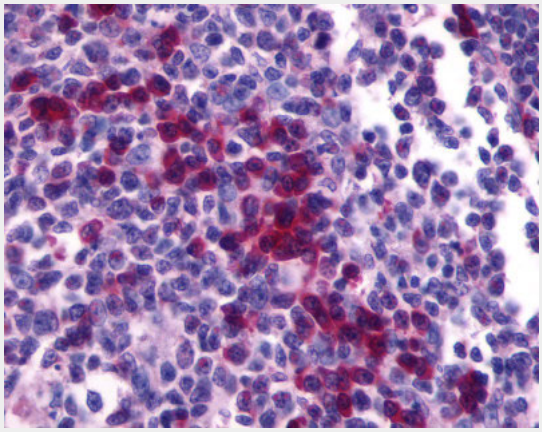


Anti-CXCR4 antibody IHC of human Colon, Carcinoma.



Anti-CXCR4 antibody ALS10344 IHC of human tonsil.

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).
Federsppiel 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).