

# CXCR4 Antibody

Rabbit mAb

Catalog # AP90416

## Product Information

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<b>Application</b>	WB, IHC, IF, ICC, IHF
<b>Primary Accession</b>	<a href="#">P61073</a>
<b>Reactivity</b>	Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	CD184 ; CXCR4; C-X-C chemokine receptor type 4; FB22; Fusin; HM89; LCR1; LESTR; NPYRL; SDF-1 receptor; Stromal cell- derived factor 1 receptor;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	39746

## Additional Information

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<b>Dilution</b>	WB 1:100~1:200 IHC 1:50~1:200 ICC/IF 1:50~1:200
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human CXCR4
<b>Description</b>	Receptor for the C-X-C chemokine CXCL12/SDF-1 that transduces a signal by increasing intracellular calcium ions levels and enhancing MAPK1/MAPK3 activation. Acts as a receptor for extracellular ubiquitin; leading to enhance intracellular calcium ions and reduce cellular cAMP levels. Involved in haematopoiesis and in cardiac ventricular septum formation. Plays also an essential role in vascularization of the gastrointestinal tract, probably by regulating vascular branching and/or remodeling processes in endothelial cells. Could be involved in cerebellar development.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

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<b>Name</b>	CXCR4 {ECO:0000303   PubMed:9468539, ECO:0000312   HGNC:HGNC:2561}
<b>Function</b>	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="#">10074102</a> , PubMed: <a href="#">10452968</a> , PubMed: <a href="#">10644702</a> , PubMed: <a href="#">10825158</a> , PubMed: <a href="#">18799424</a> , PubMed: <a href="#">20048153</a> , PubMed: <a href="#">20505072</a> , PubMed: <a href="#">24912431</a> , PubMed: <a href="#">28978524</a> , PubMed: <a href="#">8752280</a> , PubMed: <a href="#">8752281</a> ). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase (PubMed: <a href="#">16725153</a> , PubMed: <a href="#">17197449</a> , PubMed: <a href="#">18799424</a> , PubMed: <a href="#">39093700</a> ). CXCR4 is coupled to G(i) G alpha proteins and mediates

inhibition of adenylate cyclase (PubMed:[17197449](#), PubMed:[39093700](#)). Involved in the AKT signaling cascade (PubMed:[24912431](#)). Plays a role in regulation of cell migration, e.g. during wound healing (PubMed:[28978524](#)). Also 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 (By similarity). Also plays an essential role in vascularization of the gastrointestinal tract, probably by regulating vascular branching and/or remodeling processes in endothelial cells (By similarity). Involved in cerebellar development; in the CNS, could mediate hippocampal-neuron survival (By similarity).

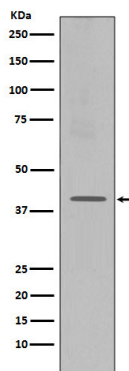
### Cellular Location

Cell membrane; Multi-pass membrane protein. Cell junction. Early endosome. Late endosome. Lysosome Note=In unstimulated cells, diffuse pattern on plasma membrane (PubMed:[10452968](#), PubMed:[14602072](#), PubMed:[21540189](#)). On agonist stimulation, colocalizes with ITCH at the plasma membrane where it becomes ubiquitinated (PubMed:[14602072](#)). 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) (PubMed:[20215400](#))

### 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

## Images



Western blot analysis of CXCR4 expression in Jurkat cell lysate.

Image not found : 202311/AP90416-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human cervical carcinoma, using CXCR4 Antibody.

Image not found : 202311/AP90416-IF.jpg

Immunofluorescent analysis of Jurkat cells, using CXCR4 Antibody .

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