

# CXCR4 Rabbit mAb

Catalog # AP76926

## Product Information

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<b>Application</b>	WB, IHC-P, IF, ICC
<b>Primary Accession</b>	<a href="#">P61073</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Immunogen</b>	A synthesized peptide derived from human CXCR4
<b>Purification</b>	Affinity Chromatography
<b>Calculated MW</b>	39746

## Additional Information

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<b>Gene ID</b>	7852
<b>Other Names</b>	CXCR4
<b>Dilution</b>	WB~~1/500-1/1000 IHC-P~~N/A IF~~1:50~200 ICC~~N/A
<b>Format</b>	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## 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: <a href="#">17197449</a> , PubMed: <a href="#">39093700</a> ). Involved in the AKT signaling cascade (PubMed: <a href="#">24912431</a> ). Plays a role in regulation of cell migration, e.g. during wound healing (PubMed: <a href="#">28978524</a> ). 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

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