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CXCR4 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10012

Product Information

Application	WB, IHC, FC
Primary Accession	P61073
Other Accession	P61073, NP_003458, NM_003467
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Horse
Predicted	Human, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	39746

Additional Information

Gene ID	7852
Alias Symbol	CD184, D2S201E, FB22, HM89, HSY3RR, LAP3, LCR1, LESTR, NPY3R, NPYR, NPYRL, NPYY3R, WHIM
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.

Protein Information

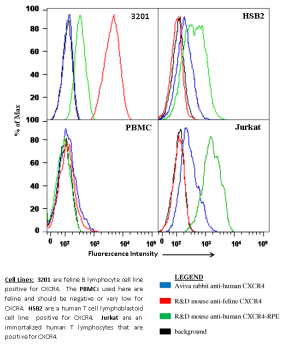
Name	CXCR4 {ECO:0000303|PubMed:9468539, ECO:0000312|HGNC:HGNC:2561}
Function	Receptor for the C-X-C chemokine CXCL12/SDF-1 that transduces a signal by increasing intracellular calcium ion levels and enhancing MAPK1/MAPK3 activation (PubMed:10074102, PubMed:10452968, PubMed:10644702, PubMed:10825158, PubMed:18799424, PubMed:20048153, PubMed:20505072, PubMed:24912431, PubMed:28978524, PubMed:8752280, PubMed:8752281). 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:16725153, PubMed:17197449, PubMed:18799424, PubMed:39093700). 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 surviva (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

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).

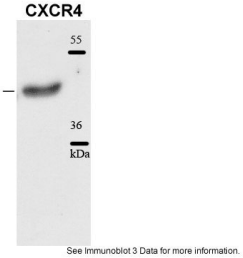
Images

CXCR4 antibody - N-terminal region (AI10012) in Human



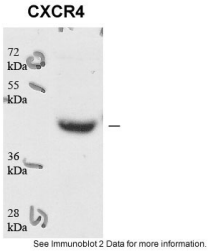
HMEC-1, A549 cells using Flow Cytometry

Sample Type: HMEC-1 and A549 cells



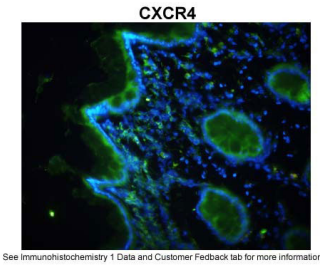
See Immunoblot 3 Data for more information.

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.



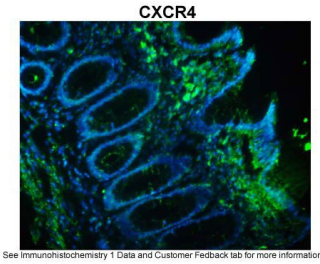
See Immunoblot 2 Data for more information.

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.



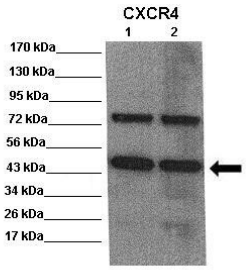
See Immunohistochemistry 1 Data and Customer Fedback tab for more information.

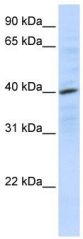
CXCR4 antibody - N-terminal region (AI10012) in Human HMEC-1, A549 cells using Immunohistochemistry
Immunohistochemistry with HMEC-1 and A549 cells tissue



See Immunohistochemistry 1 Data and Customer Fedback tab 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 Human 721_B cells using Western Blot
WB Suggested Anti-CXCR4 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:312500
Positive Control: 721_B cell lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.