

Rabbit CXCR4 Polyclonal Antibody | anti-CXCR4 antibody

CXCR4 Antibody

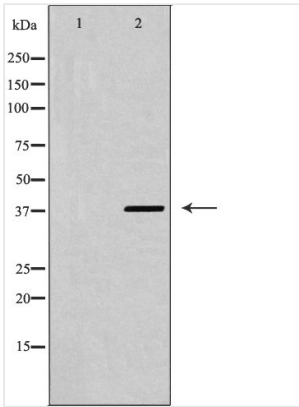
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321935	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CXCR4; Polyclonal Antibody; CXCR4 Antibody; C-X-C chemokine receptor type 4; CD184; CD184 antigen; Chemokine (C X C motif) receptor 4; Chemokine CXC Motif Receptor 4; CXC-R4; CXCR-4; CXCR4_HUMAN; D2S201E; FB22; Fusin; HM89; HSY3RR; LAP 3; LAP3; LCR1; LESTR; Leukocyte derived seven transmembrane domain receptor; Leukocyte-derived seven transmembrane domain receptor; Lipopolysaccharide associated protein 3; Neuropeptide Y receptor Y3; NPY3R; NPYR; NPYRL; NPY3Y3; NPY3Y3R; Probable G protein coupled receptor lcr1 homolog; SDF 1 receptor; SDF-1 receptor; SEVEN-TRANSMEMBRANE-SEGMENT RECEPTOR; Stromal cell derived factor 1 receptor; Stromal cell-derived factor 1 receptor; WHIM; WHIMS; anti-CXCR4 antibody

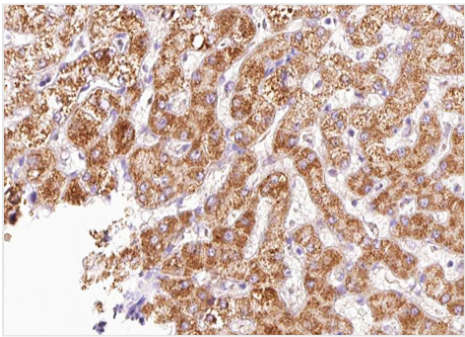
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	CXCR4 antibody detects endogenous levels of total CXCR4
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	356
Applicable Applications for anti-CXCR4 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human CXCR4
Subcellular Location	Cell Membrane. In unstimulated cells, diffuse pattern on plasma membrane. On agonist stimulation, colocalizes with ITCH at the plasma membrane where it becomes ubiquitinated.
Tissue Specificity	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.
Predicted Cross Reactivity	Pig, Bovine, Horse, Rabbit, Dog, Chicken
Similarity	Pig (100%), Bovine (100%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (90%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of CXCR4 expression in K562 cells. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA321935 at 1/100 staining human liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-CXCR4 antibody	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. 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. Subunit Structure: Monomer. Can form dimers. Interacts with CD164. Interacts with ARRB2; the interaction is dependent on the C-terminal phosphorylation of CXCR4 and allows activation of MAPK1 and MAPK3. Interacts with ARRC; the interaction is dependent on the C-terminal phosphorylation of CXCR4 and modulates calcium mobilization. Interacts (via the cytoplasmic C-terminal) with ITCH (via the WW domains I and II); the interaction, enhanced by CXCL12, ubiquitinates CXCR4 and leads to its degradation. Interacts with extracellular ubiquitin. Interacts with DBN1; this interaction is enhanced by antigenic stimulation. Following LPS binding, may form a complex with GDF5, HSP90AA1 and HSPA8. Post-translational Modifications: Phosphorylated on agonist stimulation. Rapidly phosphorylated on serine and threonine residues in the C-terminal. Phosphorylation at Ser-324 and Ser-325 leads to recruitment of ITCH, ubiquitination and protein degradation. Ubiquitinated by ITCH at the cell membrane on agonist stimulation. The ubiquitin-dependent mechanism, endosomal sorting complex required for transport (ESCRT), then targets CXCR4 for lysosomal degradation. This process is dependent also on prior Ser-/Thr-phosphorylation in the C-terminal of CXCR4. Also binding of ARRB1 to STAM negatively regulates CXCR4 sorting to lysosomes though modulating ubiquitination of SFR5S. Sulfation on Tyr-21 is required for efficient binding of CXCL12/SDF-1alpha and promotes its dimerization. Tyr-7 and Tyr-12 are sulfated in a sequential manner after Tyr-21 is almost fully sulfated, with the binding affinity for CXCL12/SDF-1alpha increasing with the number of sulfotyrosines present. Sulfotyrosines Tyr-7 and Tyr-12 occupy clefts on opposing CXCL12 subunits, thus bridging the CXCL12 dimer interface and promoting CXCL12 dimerization. O- and N-glycosylated. Asn-11 is the principal site of N-glycosylation. There appears to be very little or no glycosylation on Asn-176. N-glycosylation masks coreceptor function in both X4 and R5 laboratory-adapted and primary HIV-1 strains through inhibiting interaction with their Env glycoproteins. The O-glycosylation chondroitin sulfate attachment does not affect interaction with CXCL12/SDF-1alpha nor its coreceptor activity. Similarity: The amino-terminus is critical for ligand binding. Residues in all four extracellular regions contribute to HIV-1 coreceptor activity. Belongs to the G-protein coupled receptor 1 family.
References	He Y, Cao X, Liu X, Li X, Xu Y, Liu J, Shi J; Journal: Exp Cell Res. Quercetin reverses experimental pulmonary arterial hypertension by modulating the TrkA pathway.

NCBI AND UNIPROT INFORMATION

NCBI GI #	56790927
NCBI GeneID	7852
NCBI Accession #	NP_001008540.1

NCBI GenBank Nucleotide #	NM_001008540.2
UniProt Accession #	P61073 ; O60835 ; P30991 ; P56438 ; Q53S69 ; Q9BXA0 ; Q9UKN2 ; B2R5N0
Molecular Weight	Observed: 39 kDa Predicted: 40 kDa
NCBI Official Full Name	C-X-C chemokine receptor type 4 isoform a
NCBI Official Synonym Full Names	C-X-C motif chemokine receptor 4
NCBI Official Symbol	CXCR4
NCBI Official Synonym Symbols	FB22; HM89; LAP3; LCR1; NPYR; WHIM; CD184; LAP-3; LESTR; NPY3R; NPYRL; WHIMS; HSY3RR; NPYY3R; D2S201E
NCBI Protein Information	C-X-C chemokine receptor type 4
UniProt Protein Name	C-X-C chemokine receptor type 4
UniProt Gene Name	CXCR4
UniProt Synonym Gene Names	LAP-3; LPS-associated protein 3; SDF-1 receptor

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cxcr4-antibody-immunohistochemistry-western-blot-elisa/321935>