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Rabbit Anti-CXCR4 antibody

SL1011R

Product Name:	CXCR4
Chinese Name:	细胞表面Chemokine受体4抗体
Alias:	C-X-C chemokine receptor type 4; CXC-R4; CXCR-4; Stromal cell-derived factor 1 receptor; SDF-1 receptor; Fusin; Leukocyte-derived seven transmembrane domain receptor; LESTR; CD184 antigen; CXCR4_HUMAN.
文献引用 PubMed :	**Specific References(9)**|SL1011R has been referenced in 9 publications. **[IF=8.98]**Pei, Guangchang, et al. "Renal Interstitial Infiltration and Tertiary Lymphoid Organ Neogenesis in IgA Nephropathy." Clinical Journal of the American Society of Nephrology (2013): CJN-01150113.**IHC-P;Human**. PubMed:24262509 **[IF=7.84]**Zhuo, Wei, et al. ?The CXCL12–CXCR4 Chemokine Pathway: A Novel Axis Regulates Lymphangiogenesis.? Clinical Cancer Research 18.19 (2012): 5387-5398.**Human, Mouse**. PubMed:22932666 **[IF=0.68]**Lu Z, Qi L, Bo XJ, Liu GD, Wang JM, Li G. Expression of CD26 and CXCR4 in prostate carcinoma and its relationship with clinical parameters. CD26 and CXCR4 expression shows correlation with prostate cancer. J Res Med Sci 2013;18:647-52**Human**. PubMed:24379839 **[IF=3.33]**Wu, Qiang, et al. "B-cell lymphoma 6 protein stimulates oncogenicity of human breast cancer cells." BMC Cancer 14.1 (2014): 418.**WB;Human**. PubMed:24917186

	[IF=2.86]Mori, Miki, et al. "Stromal Cell-Derived Factor-1α Plays a Crucial Role Based on Neuroprotective Role in Neonatal Brain Injury in Rats." International Journal of Molecular Sciences 16.8 (2015): 18018-18032.**IHC-F;Rat**. PubMed:26251894 [IF=3.26]Mu, Hailong, et al. "PLZF-Induced Upregulation of CXCR4 Promotes Dairy Goat Male Germline Stem Cell Proliferation by Targeting Mir146a." Journal of Cellular Biochemistry (2015).**WB;Goat**. PubMed:26365432 [IF=1.43]Wang, Xiao-yan, et al. "AMD3100 attenuates MMP-3 and MMP-9 expressions and prevents cartilage degradation in a monosodium iodoacetate-induced rat model of temporomandibular osteoarthritis." Journal of Oral and Maxillofacial Surgery (2016).**IHC-P;Rat**. PubMed:26851314 [IF=4.26]Aerbajinai, Wulin, et al. "Glia Maturation Factor-γ Regulates Monocyte Migration through Modulation of β1-Integrin." Journal of Biological Chemistry291.16 (2016): 8549-8564.**WB, FCM;Human**. PubMed:26895964 [IF=3.30]Ochi, Akinobu, et al. "MIF-2/D-DT Enhances Proximal Tubular Cell Regeneration Through SLPI and ATF4-dependent Mechanisms." American Journal of Physiology-Renal Physiology (2017).**WB;Mouse**. PubMed:28539339
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/TestIF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	40kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from the middle of human CD184:201-294/352<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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. Monomer. Can form dimers. **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. 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. **Subunit:** Monomer. Can form dimmers. **Subcellular Location:** Cell membrane; Multi-pass membrane protein. **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. **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.
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.

DISEASE:
Defects in CXCR4 are a cause of WHIM syndrome (WHIM) [MIM:193670]; also known as warts, hypogammaglobulinemia, infections and myelokathexis. WHIM syndrome is an immunodeficiency disease characterized by neutropenia, hypogammaglobulinemia and extensive human papillomavirus (HPV) infection. Despite the peripheral neutropenia, bone marrow aspirates from affected individuals contain abundant mature myeloid cells, a condition termed myelokathexis.

Similarity:
Belongs to the G-protein coupled receptor 1 family.

SWISS:
P61073

Gene ID:
7852

Database links:

Entrez Gene: 7852Human

Entrez Gene: 12767Mouse

Entrez Gene: 60628Rat

Omim: 162643Human

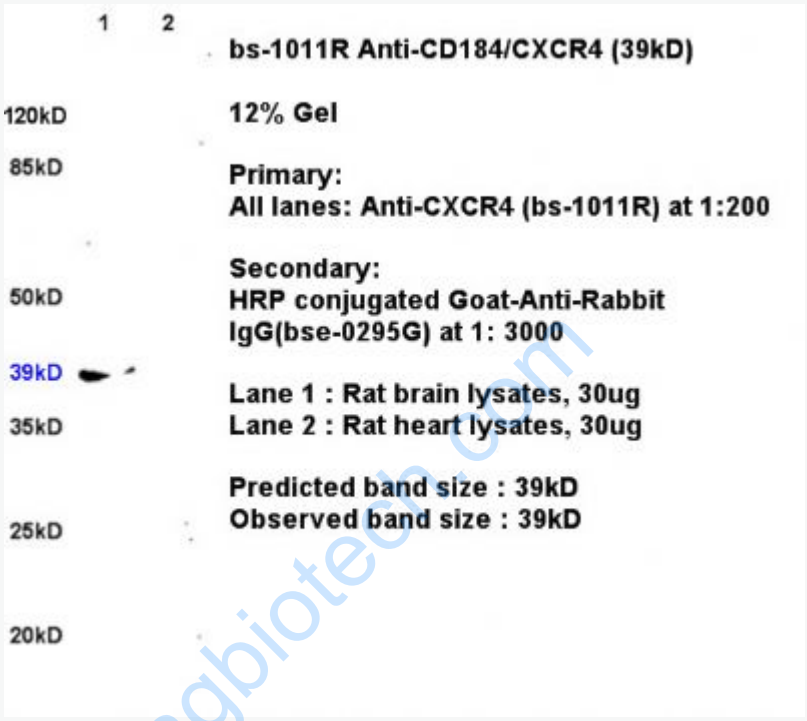
SwissProt: P61073Human

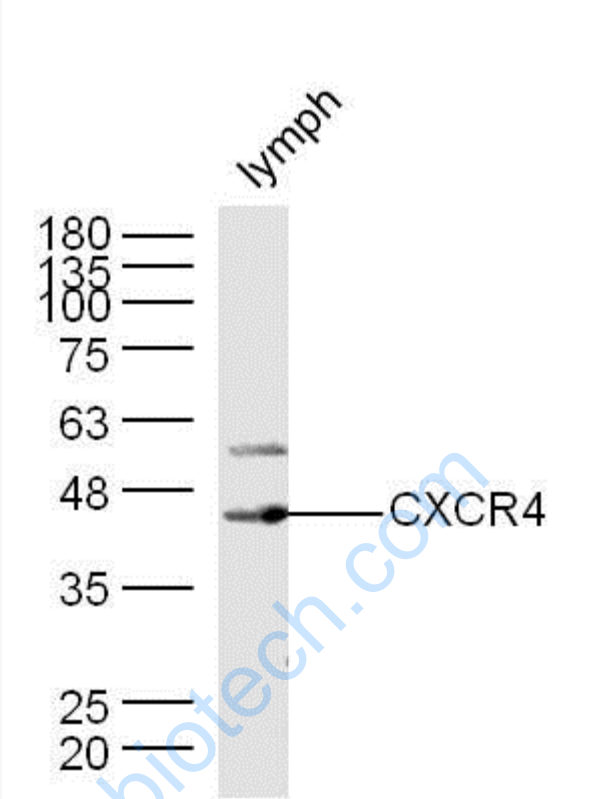
SwissProt: P70658Mouse

SwissProt: O08565Rat

Unigene: 593413Human

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

	CXCR4是白细胞中的一种受体，在免疫系统中起着调整细胞运动的重要作用，目前多用于Tumour细胞的生长、浸润性相关的研究。
Picture:	 Sample: Brain (Rat) Lysate at 30 ug Heart (Rat) Lysate at 30 ug Primary: Anti- CXCR4 (SL1011R) at 1/200 dilution Secondary: HRP conjugated Goat-Anti-rabbit IgG (SL1011R) at 1/3000 dilution Predicted band size: 39 kD Observed band size: 39 kD



Sample:

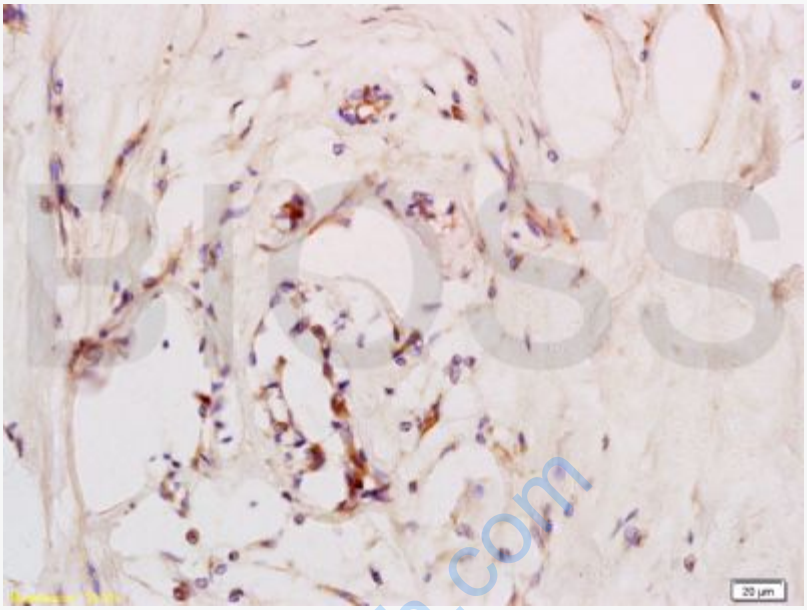
Lymph node(Mouse) Lysate at 40 ug

Primary: Anti-CXCR4 (SL1011R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 40 kD

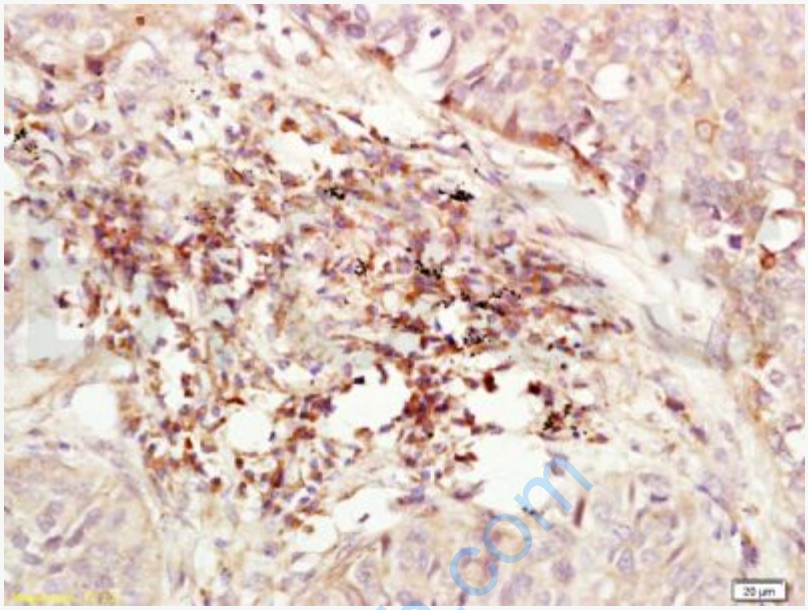
Observed band size: 40 kD



Tissue/cell: human breast carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

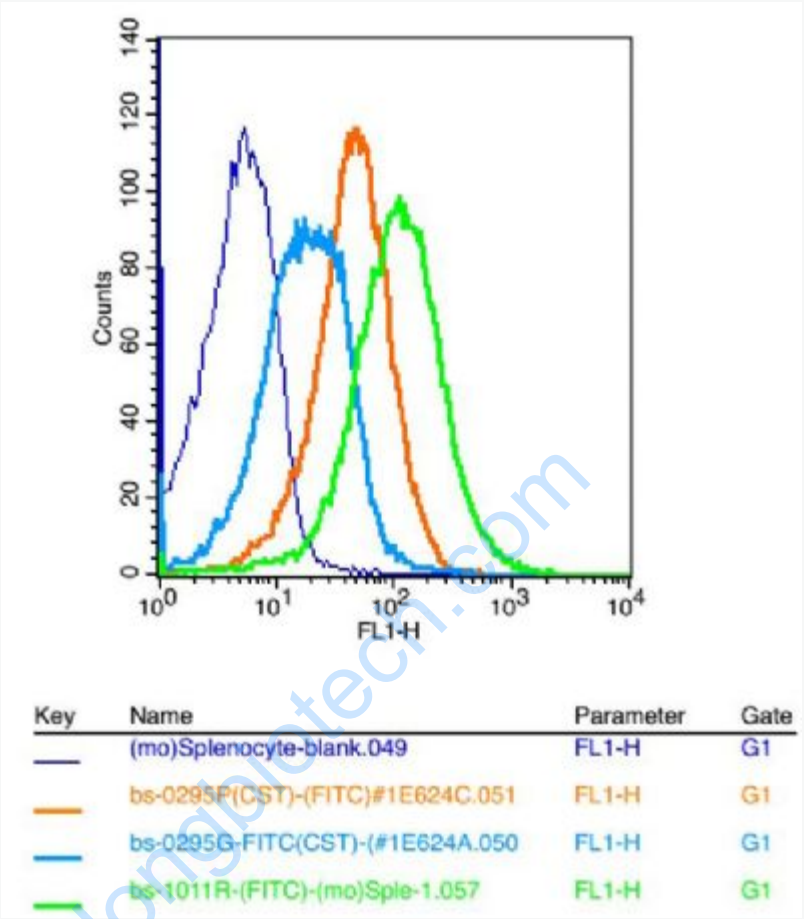
Incubation: Anti-CD184/CXCR4 Polyclonal Antibody, Unconjugated(SL1011R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

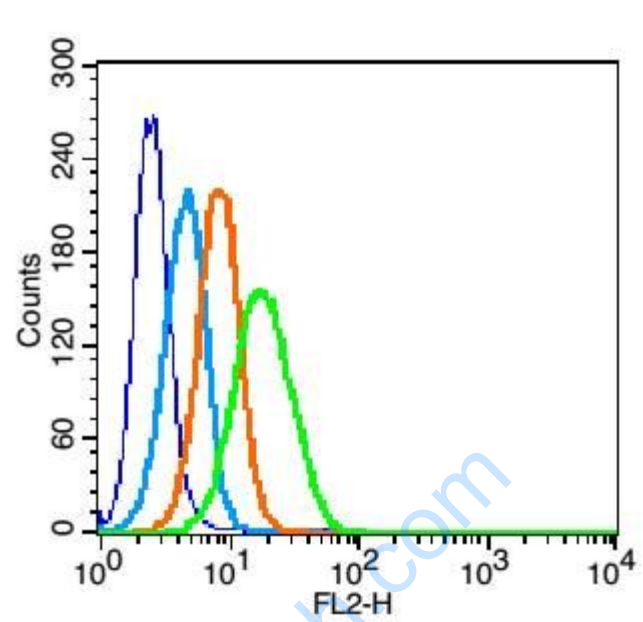
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-CD184/CXCR4 Polyclonal Antibody, Unconjugated(SL1011R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: mouse splenocytes(blue)

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:100 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 1µl in 100 µL1X PBS containing 0.5% BSA(green).



Blank control: U937(blue).

Primary Antibody: Rabbit Anti-CXCR4 antibody(SL1011R), Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG (orange) ,used under the same conditions.

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min).Primary antibody (SL1011R) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 10% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.