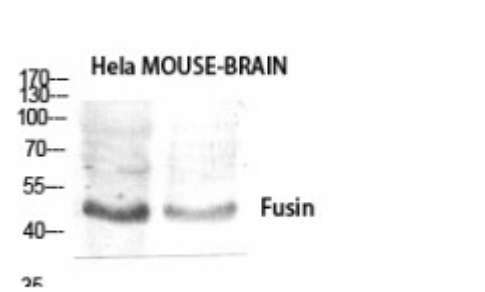
Anti-Fusin antibody



Description	Rabbit polyclonal to Fusin.

Model	STJ93165
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF, WB
Immunogen	Synthesized peptide derived from human Fusin
Immunogen Region	270-350 aa, C-terminal
Gene ID	7852
Gene Symbol	CXCR4
Dilution range	WB 1:500-1:2000IF 1:200-1:1000ELISA 1:40000
Specificity	Fusin Polyclonal Antibody detects endogenous levels of Fusin 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.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	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 p
Molecular Weight	36 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:2561OMIM:162643
Alternative 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 p
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. (Microbial infection) Acts as a coreceptor (CD4 being the primary receptor) for human immunodeficiency virus-1/HIV-1 X4 isolates and as a primary receptor for some HIV-2 isolates. Promotes Env-mediated fusion of the virus . Binds bacterial lipopolysaccharide (LPS) et mediates LPS-induced inflammatory response, including TNF secretion by monocytes .
Sequence and Domain Family	The amino-terminus is critical for ligand binding. Residues in all four extracellular regions contribute to HIV-1 coreceptor activity.
Cellular Localization	Cell membrane. Multi-pass membrane protein. Cell junction. Early endosome. Late endosome. Lysosome. In unstimulated cells, diffuse pattern on plasma membrane. On agonist stimulation, colocalizes with ITCH at the plasma membrane where it becomes ubiquitinated. 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).
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.