

CD184 (PN0338) Nb-FC recombinant antibody

Catalog No: YA0138

Reactivity: Human

**Applications:** ELISA

Target: CD184

Gene Name: CXCR4

**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-as

Human Gene Id: 7852

**Human Swiss Prot** 

No:

Immunogen: Purified recombinant Human CD184

**Specificity:** This recombinant monoclonal antibody can detects endogenous levels of CD184

protein.

P61073

**Formulation:** Phosphate-buffered solution

**Source:** Camel, chimeric fusion of Nanobody (VHH) and mouse IgG1 Fc domain,

recombinantly produced from 293F cell

**Dilution:** ELISA 1:5000-100000

**Purification:** Recombinant Expression and Affinity purified

**Concentration :** Please check the information on the tube

Storage Stability: -15°C to -25°C/1 year(Avoid freeze / thaw cycles)

**Background:** CD184, also known as fusin or CXCR4, is a 45 kD seven transmembrane G-

protein-linked CXC chemokine receptor. CD184 is widely expressed on blood and



tissue cells, including B and T cells, monocytes, macrophages, dendritic cells, granulocytes, megakaryocytes/platelets, lymphoid, myeloid precursor cells, endothelial cells, epithelial cells, astrocytes, and neurons, among other tissue cells. CD184 is the receptor for CXC chemokine SDF-1, mediates blood cell migration, and is involved in B lymphopoiesis and myelopoiesis, cardiogenesis, blood vessel formation, and cerebellar development. CXCR4 is also a coreceptor of X4 HIV-1 and an alternative receptor for some isolates of HIV-2.

## **Function:**

Receptor for the C-X-C chemokine CXCL12/SDF-1 that transduces a signal by increasing intracellular calcium ions levels and enhancing MAPK1/MAPK3 activation. Acts as a receptor for extracellular ubiquitin; leading to enhance intracellular calcium ions and reduce cellular cAMP levels. Involved in haematopoiesis and in cardiac ventricular septum formation. Plays also an essential role in vascularization of the gastrointestinal tract, probably by regulating vascular branching and/or remodeling processes in endothelial cells. Could be involved in cerebellar development. In the CNS, could mediate hippocampalneuron 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 Envenediated fusion of the virus.

## Subcellular Location:

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).

## **Expression:**

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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