

Anti-CD184 Antibody

Catalog # AP95562

Product Information

Application	FC, IF/IC
Primary Accession	P61073
Reactivity	Human
Host	Mouse
Clonality	Monoclonal (clone: 12G5)
Calculated MW	39746

Additional Information

Gene ID	7852
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
Target/Specificity	CP-MAC-infected Sup-T1 cells
Dilution	FC~~1:10~50 IF/IC~~N/A
Format	Mouse IgG2a kappa. Liquid in PBS, pH 7.3, and 0.02% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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 survival (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

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