

PE/Dazzle™ 594 anti-human CD184 (CXCR4) Antibody

Catalog# / Size	306525 / 25 tests 306526 / 100 tests
Clone	12G5
Workshop	VII 70204
Other Names	CXCR4, Fusin
Isotype	Mouse IgG2a, κ

Description 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.

Product Details

Reactivity	Human, African Green, Baboon, Chimpanzee, Cynomolgus, Rhesus, Sooty Mangabey
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	CP-MAC-infected Sup-T1 cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.
Concentration	Lot-specific (please contact technical support for concentration and total µg amount, or use our Lookup tool if you have a lot number.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

Excitation Laser Blue Laser (488 nm)
Green Laser (532 nm)/Yellow-Green Laser (561 nm)

Application Notes Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraffin-embedded tissue sections¹¹, immunocytochemistry³, immunofluorescence microscopy^{2,6}, and blocking of CD4-independent infection by HIV-2 and CD4-dependent infection by some T cell-tropic isolates of HIV-1^{4,5}. Clone 12G5 may not be suitable for Western blotting.¹⁰ The Ultra-LEAF™ purified antibody (Endotoxin <0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. Nos. 306539 & 306540).

Application References

(PubMed link indicates BioLegend citation)

- McKnight A, et al. 1997. J. Virol. 71:1692.
- Endres MJ, et al. 1996. Cell 87:745. (Immunogen, IF)
- Volin MV, et al. 1998. Biochem. Biophys. Res. Commun. 242:46. (ICC)
- Berndt C, et al. 1998. P. Natl. Acad. Sci. USA 95:12556. (Block)
- Ullrich CK, et al. 2000. Blood 96:1438. (Block)
- Murga M, et al. 2005. Blood 105:1992. (IF)
- Thompson BD. 2007. J. Biol. Chem. 282:9547. (FC) PubMed
- Isnardi I, et al. 2010. Blood 115:5026. PubMed
- Yoshino N, et al. 2000. Exp. Anim. (Tokyo) 49:97. (FC)
- Fischer T, et al. 2008. PLoS One 3:e4069.
- Schmid BC, et al. 2004. Breast Cancer Res. Treat. 84:247. (IHC)

RRID

AB_2564064 (BioLegend Cat. No. 306525)
AB_2564065 (BioLegend Cat. No. 306526)

Antigen Details

Structure	Rhodopsin family, G-protein linked seven transmembrane glycoprotein, 45 kD
Distribution	T cells and B cells, dendritic cells, monocytes, granulocytes, hematopoietic progenitors, endothelial cells
Function	B lymphopoiesis and myelopoiesis, cardiogenesis, blood vessel formation, cerebellar development
Ligand/Receptor	SDF-1 receptor, coreceptor for X4 HIV-1
Cell Type	B cells, Dendritic cells, Endothelial cells, Granulocytes, Hematopoietic stem and progenitors, Mesenchymal Stem Cells, Monocytes, Neural Stem Cells, T cells, Tregs
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroinflammation, Neuroscience, Neuroscience Cell Markers, Stem Cells
Molecular Family	CD Molecules, Cytokine/Chemokine Receptors, GPCR
Antigen References	1. Berger E, et al. 1999. Annu. Rev. Immunol. 17:657. 2. Loetscher P, et al. 2000. Adv. Immunol. 74:127. 3. Murphy P, et al. 2000. Pharmacol. Rev. 52:145.
Gene ID	7852

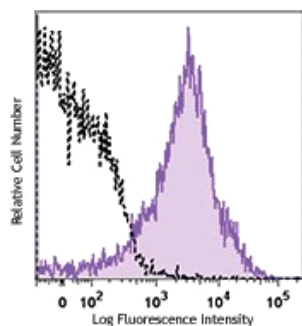
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human CD184 (CXCR4), Biotin anti-human CD184 (CXCR4), PE anti-human CD184 (CXCR4), PE/Cyanine5 anti-human CD184 (CXCR4), Purified anti-human CD184 (CXCR4), PerCP/Cyanine5.5 anti-human CD184 (CXCR4), PE/Cyanine7 anti-human CD184 (CXCR4), Brilliant Violet 421™ anti-human CD184 (CXCR4), Brilliant Violet 605™ anti-human CD184 (CXCR4), Purified anti-human CD184 (CXCR4) (Maxpar® Ready), APC/Cyanine7 anti-human CD184 (CXCR4), Brilliant Violet 785™ anti-human CD184 (CXCR4), TotalSeq™-A0366 anti-human CD184 (CXCR4), TotalSeq™-C0366 anti-human CD184 (CXCR4), Brilliant Violet 510™ anti-human CD184 (CXCR4), Ultra-LEAF™ Purified anti-human CD184 (CXCR4), APC/Fire™ 750 anti-human CD184 (CXCR4), TotalSeq™-B0366 anti-human CD184 (CXCR4)

Product Data



Human peripheral blood lymphocytes were stained with CD184 (clone 12G5) PE/Dazzle™ 594 (filled histogram) or mouse IgG2a, κ PE/Dazzle™ 594 isotype control (open histogram).

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