

**APC/Cy7 anti-human CD184 (CXCR4)**

**Catalog # / Size:** 2132640 / 100 tests  
2132635 / 25 tests

**Clone:** 12G5

**Isotype:** Mouse IgG2a,  $\kappa$

**Immunogen:** CP-MAC-infected Sup-T1 cells

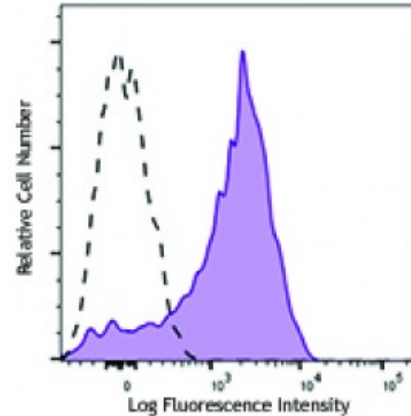
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC/Cy7 under optimal conditions. The solution is free of unconjugated APC/Cy7 and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Workshop Number:** VII 70204

**Concentration:** Lot-specific



Human peripheral blood lymphocytes were stained with CD184 (clone 12G5) APC/Cy7 (filled histogram) or mouse IgG2a,  $\kappa$  APC/Cy7C isotype control (open histogram).

**Applications:**

**Applications:** Flow Cytometry

**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  $\mu$ L per million cells or 5  $\mu$ L per 100  $\mu$ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraffin-embedded tissue sections<sup>11</sup>, immunocytochemistry<sup>3</sup>, immunofluorescence microscopy<sup>2,6</sup>, and blocking of CD4-independent infection by HIV-2 and CD4-dependent infection by some T cell-tropic isolates of HIV-1<sup>4,5</sup>. Clone 12G5 may not be suitable for Western blotting.<sup>10</sup> The LEAF™ purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for functional assays (Cat. No. 306512).

- Application References:**
- 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)

**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.

**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.