Technical Data Sheet

PE Mouse Anti-Human CD184

Product Information

Material Number: Alternate Name:

Size: Vol. per Test: **Clone:** Immunogen: Isotype: **Reactivity:**

Workshop: **Storage Buffer:**

Description

VII 70204, 70305 Aqueous buffered solution containing BSA and ≤0.09% sodium azide. The 12G5 monoclonal antibody specifically binds to CD184, also known as CXCR4 and Fusin. CD184/CXCR4 is a seven-transmembrane domain, G-protein-linked, glycoprotein chemokine receptor. CD184 serves as a receptor for the C-X-C chemokine, SDF-1. It is expressed on a wide variety of hematopoietic cells including lymphoid and myeloid precursor cells, megakaryocytes, platelets, T and B lymphocytes, granulocytes, monocytes/macrophages, and dendritic cells. It is also expressed on vascular endothelial cells, epithelial cells, neurons and astrocytes. CD184 plays a variety of roles in hematopoiesis, vascularization and neural development. CD184 also functions as a coreceptor for infection with T-cell tropic strains of HIV-1 and as a receptor for CD4-independent infection by some HIV isolates. The 12G5 antibody has

Mouse (BALB/c) IgG2a, ĸ

QC Testing: Human

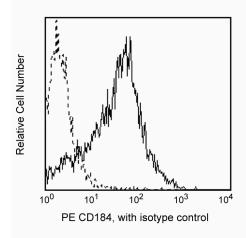
555974

20 µl

12G5

been reported to block CD4-independent infection by HIV-2 and CD4-dependent infection by some T-cell tropic isolates of HIV-1.

WHIM; HM89 100 Tests



Flow cytometric analysis of CD184 expression on human peripheral blood lymphocytes. Whole blood was stained with either PE Mouse IgG2a, κ Isotype Control (Cat. No. 555574: dashed line histogram) or PE Mouse Anti-Human CD184 (Cat. No. 555974/561733/557145; solid line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Fluorescent histograms were derived from gated events with the side and forward light-scattering characteristics of viable lymphocytes.

CXCR4; Fusin; SDF-1 receptor; LAP3; LCR1; LESTR; NPYY3R; NPY3R;

SIVmac variant CP-MAC-infected Sup-T1 cells

Tested in Development: Rhesus, Cynomolgus, Baboon

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry

Routinely Tested

Recommended Assay Procedure:

Flow cytometry: Chemokine receptors are known to internalize during manipulation resulting in low frequency expression. Investigators are advised to perform immunophenotyping studies of chemokine receptors on freshly collected samples (<24 Hrs). Incubation with the antibody should be done at 4°C in the dark. Cellular manipulation, such as Ficoll separation, freezing, or exposure to cold temperatures prior to staining should be minimized and have been shown to cause a decrease in staining intensity and/or inconsistent results.

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Investigators should note that alternative staining procedures may be neccessary. A multiple-step staining procedure is strongly recommended, in some instances, to amplify immunofluorescent signals for the flow cytometric analysis of human CXCR4 expression. Investigators may find the Purified Mouse Anti-Human CD184 antibody (Cat. No. 555972) to be useful in conjunction with appropriate secondary and tertiary reagents for detecting low frequency expression, such as with Biotin Goat Anti-Mouse Ig (Cat. No. 553999) and PE Streptavidin (Cat. No. 554061).

Suggested Companion Products

Catalog Number	Name	Size	Clone
555574	PE Mouse IgG2a, κ Isotype Control	100 Tests	G155-178
555899	Lysing Buffer	100 mL	(none)
555972	Purified Mouse Anti-Human CD184	0.1 mg	12G5
553999	Biotin Goat Anti-Mouse Ig (Multiple Adsorption)	0.5 mg	Polyclonal
554061	PE Streptavidin	0.5 mg	(none)
349202	BD FACS [™] Lysing Solution	100 mL	(none)
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
561733	PE Mouse Anti-Human CD184	25 Tests	12G5
557145	PE Mouse Anti-Human CD184	50 Tests	12G5

Product Notices

- 1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^{6} cells in a 100-µl experimental sample (a test).
- 2. An isotype control should be used at the same concentration as the antibody of interest.
- 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
- 5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
- 6. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
- 7. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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Mason D. David Mason .. et al., ed. Leucocyte typing VII : white cell differentiation antigens : proceedings of the Seventh International Workshop and Conference held in Harrogate, United Kingdom. Oxford: Oxford University Press; 2002(Biology)

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