Technical Data Sheet

PE Mouse Anti-Human CD184

Product Information

Material Number:	561733
Alternate Name:	CXCR4; Fusin; SDF-1 receptor; LAP3; LCR1; LESTR; NPYY3R; NPY3R; WHIM; HM8
Size:	25 tests
Vol. per Test:	20 µl
Clone:	12G5
Isotype:	Mouse (BALB/c) IgG2a, ĸ
Reactivity:	QC Testing: Human
Workshop:	VII 70204, 70305
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

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 hematopietic cells, vascular endothelial cells and cells of the nervous system. 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 been reported to block CD4-independent infection by HIV-2 and CD4-dependent infection by some T-cell tropic isolates of HIV-1.



Profile of peripheral blood lymphocytes analyzed by flow cytometry.

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.

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 (MN 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 (MN 553999) and PE Streptavidin (MN 554061).

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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)
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

- 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 1. sample (a test).
- An isotype control should be used at the same concentration as the antibody of interest. 2.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before 3. discarding to avoid accumulation of potentially explosive deposits in plumbing.
- Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4.
- For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at 5. www.bdbiosciences.com/colors.
- 6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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