Technical Data Sheet

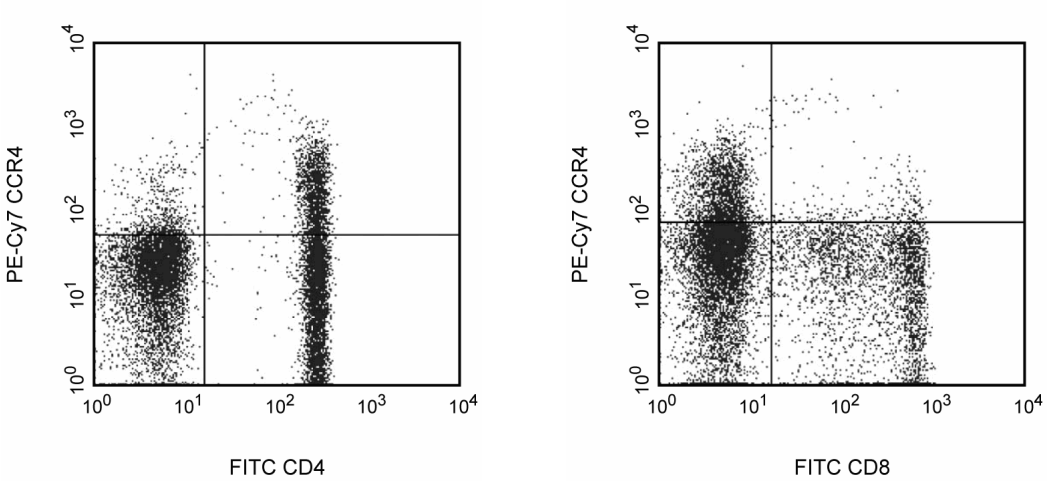
PE-Cy™7 Mouse Anti-Human CD194

Product Information

Material Number:	**557864**
Alternate Name:	CCR4; C-C chemokine receptor type 4; CMKBR4; K5-5
Entrez Gene ID:	1233
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	1G1
Immunogen:	Human CCR4 Transfected Cell Line
Isotype:	Mouse (C57BL/6) IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	HCDM 2006
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The monoclonal antibody 1G1 reacts with CD194, also known as the human CC Chemokine Receptor type 4 (CCR4). CCR4 is expressed on activated Th2 cells, regulatory T cells, activated NK cells, basophils, monocytes and platelets. CCR4 is a seven-transmembrane, G-protein-coupled receptor, and is the specific receptor for CC chemokines, CCL22/MDC/Macrophage-Derived Chemokine and CCL17/TARC/Thymus and Activation-Regulated Chemokine. It has been reported that CCR4 mRNA is expressed mainly in the thymus and spleen. The human CCR4 gene has been mapped to chromosome 3p24. The purified form of this antibody has been reported not to be a neutralizing antibody. The immunogen used to generate the 1G1 hybridoma has been reported to be human CCR4 transfected L1.2 mouse lymphoma cells.



Flow cytometric detection of CD194 (CCR4) on human peripheral lymphocytes. *Human peripheral blood mononuclear cells (PBMC) were stained with the PE-Cy™7 Mouse Anti-Human CD194 antibody in conjunction with either a FITC Mouse Anti-Human CD4 antibody (Cat. No. 555346 , left panel) or with a FITC Mouse Anti-Human CD8 antibody (Cat. No. 555366, right panel). The cells were gated on lymphocytes and quadrant markers for the bivariate dot plots were set based on staining with a PE-Cy™7 Mouse IgG1 κ Isotype Control (MOPC-21). If applicable, investigators may be interested in utlizing alternate isotype control PE-Cy™7 Mouse IgG1, κ (X40) (MN 348788).*

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 PE-Cy7 under optimum conditions, and unconjugated antibody and free PE-Cy7 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Warning: Some APC-Cy7 and PE-Cy7 conjugates show changes in their emission spectrum with prolonged exposure to formaldehyde. If you are unable to analyze fixed samples within four hours, we recommend that you use BD™ Stabilizing Fixative (Cat. No. 338036).
4. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
5. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
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7. PE-Cy7 is a tandem fluorochrome composed of R-phycoerythrin (PE), which is excited by 488-nm light and serves as an energy donor, coupled to the cyanine dye Cy7, which acts as an energy acceptor and fluoresces maximally at 780 nm. PE-Cy7 tandem fluorochrome emission is collected in a detector for fluorescence wavelengths of 750 nm and higher. Although every effort is made to minimize the lot-to-lot variation in the efficiency of the fluorochrome energy transfer, differences in the residual emission from PE may be observed. Therefore, we recommend that individual compensation controls be performed for every PE-Cy7 conjugate. PE-Cy7 is optimized for use with a single argon ion laser emitting 488-nm light, and there is no significant overlap between PE-Cy7 and FITC emission spectra. When using dual-laser cytometers, which may directly excite both PE and Cy7, we recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
8. 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.
9. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
10. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Campbell JJ, Haraldsen G, Pan J, et al. The chemokine receptor CCR4 in vascular recognition by cutaneous but not intestinal memory T cells. *Nature.* 1999; 400(6746):776-780. (Biology)

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