Technical Data Sheet

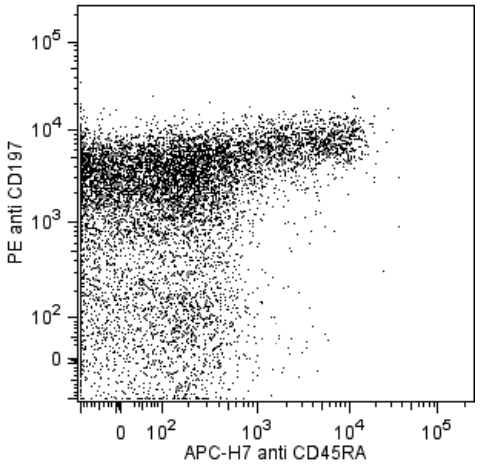
PE Mouse anti-Human CD197 (CCR7)

Product Information

Material Number:	**560765**
Alternate Name:	
Size:	100 tests
Vol. per Test:	20 µl
Clone:	150503
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The monoclonal antibody 150503 reacts with the human CC chemokine receptor, CCR7 (also known as CD197). CCR7 (previously known as BLR2, EBI1 and CMKBR7), a seven-transmembrane, G-protein-coupled receptor, is the specific receptor for CC chemokines, MIP-3β/Exodus 3/ELC/ CCL19 and 6Ckine/Exodus 2/SLC/TCA4/CCL21. It has been shown that CCR7 mRNA is expressed mainly in lymphoid tissues including spleen, lymph nodes and tonsil. CCR7 is expressed on peripheral T and B lymphocytes, by bone marrow and cord blood CD34-positive cells and by mature dendritic cells. CCR7 expression can be used to distinguish naive, central memory and effector memory T cell subsets. The human *CCR7* gene, unlike other CC chemokine receptor genes, has been mapped to chromosome 17 (region 17q12).



Flow cytometric analysis of CD197 (CCR7) on human peripheral blood lymphocytes. *Whole blood was stained with PE Mouse anti-Human CD197 (CCR7), BD Horizon™ V500 Mouse Anti-Human CD4 (clone RPA-T4, Cat. No. 560768), and APC-H7 Mouse Anti-Human CD45RA (clone HI100, Cat. No. 560674) antibodies. The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). A two-color flow cytometric dot plot showing the correlated expression patterns of CD45RA versus CD197 was derived from human CD4-positive T cell gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD LSR™ II flow cytometer system.*

Preparation and Storage

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.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
560768	V500 Mouse Anti-Human CD4	100 tests	RPA-T4
560674	APC-H7 Mouse Anti-Human CD45RA	50 tests	HI100
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)
555574	PE Mouse IgG2a, κ Isotype Control	100 tests	G155-178

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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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. 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.

References

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Kim CH, Pelus LM, White JR, Broxmeyer HE. Macrophage-inflammatory protein-3 beta/EBI1-ligand chemokine/CK beta-11, a CC chemokine, is a chemoattractant with a specificity for macrophage progenitors among myeloid progenitor cells. *J Immunol.* 1998; 161(5):2580-2585. (Biology)

Schweickart VL, Raport CJ, Godiska R, et al. Cloning of human and mouse EBI1, a lymphoid-specific G-protein-coupled receptor encoded on human chromosome 17q12-q21.2. *Genomics.* 1994; 23(3):643-650. (Biology)

Yanagihara S, Komura E, Nagafune J, Watarai H, Yamaguchi Y. EBI1/CCR7 is a new member of dendritic cell chemokine receptor that is up-regulated upon maturation. *J Immunol.* 1998; 161(6):3096-3102. (Biology)

Yoshida R, Imai T, Hieshima K, et al. Molecular cloning of a novel human CC chemokine EBI1-ligand chemokine that is a specific functional ligand for EBI1, CCR7. *J Biol Chem.* 1997; 272(21):13803-13809. (Biology)

Yoshida R, Nagira M, Imai T, et al. EBI1-ligand chemokine (ELC) attracts a broad spectrum of lymphocytes: activated T cells strongly up-regulate CCR7 and efficiently migrate toward ELC. *Int Immunol.* 1998; 10(7):901-910. (Biology)

Yoshida R, Nagira M, Kitaura M, Imagawa N, Imai T, Yoshie O. Secondary lymphoid-tissue chemokine is a functional ligand for the CC chemokine receptor CCR7. *J Biol Chem.* 1998; 273(12):7118-7122. (Biology)