

## Technical Data Sheet

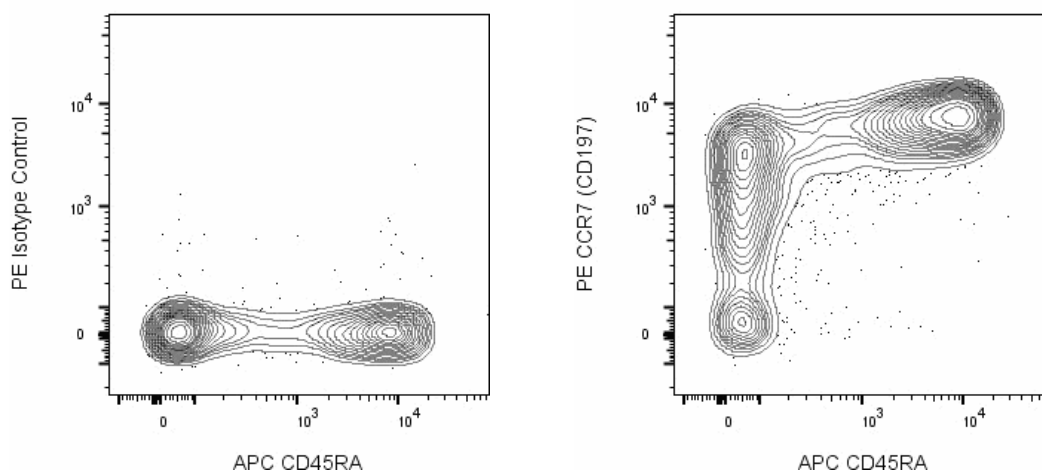
## PE Mouse Anti-Human CCR7 (CD197)

## Product Information

<b>Material Number:</b>	566742
<b>Alternate Name:</b>	BLR2; CC chemokine receptor 7; CMKBR7; EB11; EV11; Epstein-Barr virus induced gene 1; MIP-3 beta receptor
<b>Size:</b>	25 Tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	2-L1-A
<b>Immunogen:</b>	Human CCR7 Transfected Cell Line
<b>Isotype:</b>	Mouse (BALB/c) IgG1, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

The 2-L1-A monoclonal antibody specifically binds to the human CC chemokine receptor CCR7, also known as CD197, on the cell surface. CCR7 (previously known as BLR2, EB11 and CMKBR7) is a seven-transmembrane, G-protein-coupled receptor specific for two CC chemokines: CCL19 (also known as MIP-3β, Exodus-3, and ELC) and CCL21 (also known as 6CKine, Exodus-2 SLC, TCA4, and SCYA21). CCR7 mRNA is expressed mainly in lymphoid tissues including the spleen, lymph nodes and tonsil, in bone marrow, and on peripheral T and B lymphocytes, cord blood CD34-positive cells, and mature dendritic cells. In response to its cognate chemokines, CCR7 (CD197) mediates homing of leucocytes to secondary lymphoid tissues. Differential CCR7 (CD197) 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). Because the extracellular region of CCR2 (CD192) has significant sequence homology with CCR7 (CD197), BD Biosciences has confirmed that mAb 2-L1-A does not cross-react with CCR2 on the surface of transfected cells.



**Flow cytometric analysis of CCR7 (CD197) on human peripheral blood lymphocytes.** Whole blood was stained with BD Horizon™ BUV395 Mouse Anti-Human CD4 (clone RPA-T4, Cat. No. 564724), APC Mouse Anti-Human CD45RA (clone HI100, Cat. No. 550855 or 561884), and either PE Mouse IgG1, κ Isotype Control (Cat. No. 555749, Left Plot) or PE Mouse Anti-Human CCR7 (CD197) (Cat. No. 566741 or 566742, Right Plot). The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). Two-color flow cytometric contour plots showing the correlated patterns of CD45RA versus CCR7 (CD197) [or Ig isotype control] staining was derived from CD4-positive T cell gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry and data analysis were performed using a BD LSRFortessa™ Cell Analyzer System and FlowJo™ software. Data shown on this Technical Data Sheet are not lot specific.

## 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.

## BD Biosciences

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## Application Notes

### Application

Flow cytometry

Routinely Tested

### Suggested Companion Products

Catalog Number	Name	Size	Clone
555899	Lysing Buffer	100 mL	(none)
564724	BUV395 Mouse Anti-Human CD4	100 Tests	RPA-T4
550855	APC Mouse Anti-Human CD45RA	100 Tests	HI100
561884	APC Mouse Anti-Human CD45RA	25 Tests	HI100
555749	PE Mouse IgG1, $\kappa$ Isotype Control	100 Tests	MOPC-21
566741	PE Mouse Anti-Human CCR7 (CD197)	100 Tests	2-L1-A
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

### Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l 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](http://www.bdbiosciences.com/colors).
6. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

### References

- Birkenbach M, Josefsen K, Yalamanchili R, Lenoir G, Kieff E. Epstein-Barr virus-induced genes: first lymphocyte-specific G protein-coupled peptide receptors. *Nature*. 1993; 67(4):2209-2220. (Biology)
- Burgstahler R, Kempkes B, Steube K, Lipp M. Expression of the chemokine receptor BLR2/EBI1 is specifically transactivated by Epstein-Barr virus nuclear antigen 2. *Biochem Biophys Res Commun*. 1995; 215(2):737-743. (Biology)
- 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)