# **Technical Data Sheet**

# PE Mouse Anti-Human CD196 (CCR6)

#### **Product Information**

Material Number: 561019

Alternate Name: BN-1; C-C chemokine receptor type 6; C-C CKR-6; CC-CKR-6; CD196

 Size:
 25 μg

 Concentration:
 0.2 mg/ml

 Clone:
 11A9

 Isotype:
 Mouse IgG1

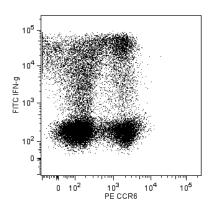
Isotype:Mouse IgG1,  $\kappa$ Reactivity:QC Testing: Human

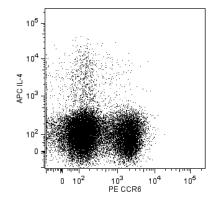
**Storage Buffer:** Aqueous buffered solution containing ≤0.09% sodium azide.

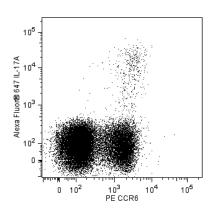
#### Description

CCR6 is a seven-transmembrane, G-protein-coupled, glycoprotein receptor that is a member of the beta chemokine receptor family. CCR6 was clustered as CD196 in the 7th HLDA Workshop. The human CCR6 gene has been mapped to chromosome 6q27. CCR6 is a receptor for the CC chemokine CCL20/MIP-3alpha/LARC/Exodus and also binds with lower affinity to and mediates responses to beta-defensin2/hBD-2. CCR6 is predominantly expressed by B lymphocytes, certain subsets of effector and memory T cells and by immature dendritic cells but not by monocytes, NK cells, or granulocytyes. Skin-homing CLA (Cutaneous Lymphocyte Antigen)-positive memory T cells, Th1 cells, regulatory T cells and IL-17A-producing Th17 cells predominantly express high levels of CCR6. CCR6 mediates the trafficking of T, B, and dendritic cells to epithelial sites near the skin and mucosal surfaces during inflammatory and immunological responses.

The monoclonal antibody 11A9 reacts with the human CC chemokine receptor, CCR6. An N-terminal peptide of human CCR6 was used as an immunogen to generate the 11A9 hybridoma. The 11A9 antibody does not cross-react with human CCR1, CCR2, CCR3, CCR4, CCR5, CCR7, CCR8, CCR9, CXCR1, CXCR2, CXCR3, CXCR4 and CXCR5 receptors. This antibody is NOT a neutralizing antibody.







Flow cytometric analysis of PE Mouse Anti-Human CD196 (CCR6) on stimulated PBMC. Human PBMC were stimulated with PMA/lonomycin in the presence of BD GolgiStop™ (Cat. No. 554724) for 5 hours. After stimulation, cells were surface stained with the PE Mouse Anti-Human CD196 (CCR6) antibody, then fixed and permeabilized using BD Cytofix/Cytoperm™ reagents (Cat. No. 554714) followed by intracellular staining with FITC Mouse Anti-Human IFN-γ (Cat. No. 554700) or APC Rat Anti-Human IL-4 (Cat. No. 554486) or Alexa Fluor® 647 Anti-Human IL-17A. The dot plots were derived from a lymphocyte gate. Flow cytometry was performed on a BD FACSCalibur™ System.

# **Preparation and Storage**

Store undiluted at  $4^{\circ}\text{C}$  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

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### **Suggested Companion Products**

Catalog Number	Name Name	Size	Clone	
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21	
554724	Protein Transport Inhibitor (Containing Monensin)	0.7 ml	(none)	
554714	BD Cytofix/Cytoperm™ Fixation/Permeablization Kit	250 tests	(none)	
554700	FITC Mouse Anti-Human IFN-γ	0.1 mg	B27	
554486	APC Rat Anti-Human IL-4	0.1 mg	MP4-25D2	

### **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. 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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
- 5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

#### References

Baba M, Imai T, Nishimura M, et al. Identification of CCR6, the specific receptor for a novel lymphocyte-directed CC chemokine LARC. *J Biol Chem.* 1997; 272(23):14893-14898. (Biology)

Greaves DR, Wang W, Dairaghi DJ, et al. CCR6, a CC chemokine receptor that interacts with macrophage inflammatory protein 3alpha and is highly expressed in human dendritic cells. J Exp Med. 1997; 186(6):837-844. (Biology)

Liao F, Alderson R, Su J, Ullrich SJ, Kreider BL, Farber JM. STRL22 is a receptor for the CC chemokine MIP-3alpha. *Biochem Biophys Res Commun.* 1997; 236(1):212-217. (Biology)

Liao F, Lee HH, Farber JM. Cloning of STRL22, a new human gene encoding a G-protein-coupled receptor related to chemokine receptors and located on chromosome 6q27. *Genomics*. 1997; 40(1):175-180. (Biology)

Liao F, Rabin RL, Smith CS, Sharma G, Nutman TB, Farber JM. CC-chemokine receptor 6 is expressed on diverse memory subsets of T cells and determines responsiveness to macrophage inflammatory protein 3 alpha. *J Immunol.* 1999; 162(1):186-194. (Biology)

Power CA, Church DJ, Meyer A, et al. Cloning and characterization of a specific receptor for the novel CC chemokine MIP-3alpha from lung dendritic cells. *J Exp Med.* 1997; 186(6):825-835. (Biology)

Zaballos A, Varona R, Gutierrez J, Lind P, Marquez G. Molecular cloning and RNA expression of two new human chemokine receptor-like genes. *Biochem Biophys Res Commun.* 1996; 227(3):846-853. (Biology)

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