Technical Data Sheet

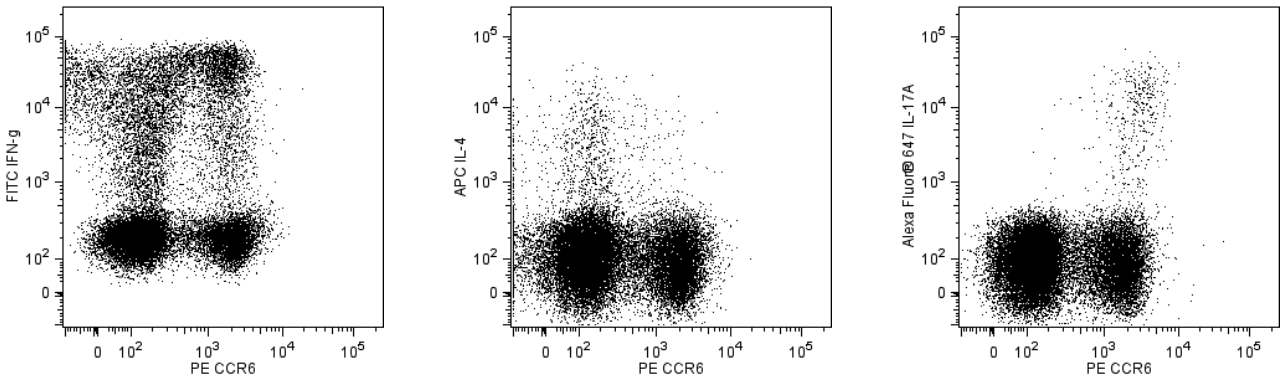
PE Mouse Anti-Human CD196 (CCR6)

Product Information

Material Number:	**561019**
Alternate Name:	BN-1; C-C chemokine receptor type 6; C-C CKR-6; CC-CKR-6; CCR-6; CD196
Size:	25 µg
Concentration:	0.2 mg/ml
Clone:	11A9
Immunogen:	Human CD196/CCR6 Peptide
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon
Workshop:	IX 48
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 11A9 monoclonal antibody specifically binds to CD196, which is also known as CCR6. CCR6 is a seven-transmembrane, G-protein-coupled, glycoprotein receptor that is a member of the beta chemokine receptor family. 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. 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 CCR6 expression on stimulated human PBMC. *PBMC were stimulated with PMA/Ionomycin in the presence of BD GolgiStop™ (Cat. No. 554724) for 5 hours. After stimulation, cells were surface stained with PE Mouse Anti-Human CD196 (CCR6) (Cat. No. 551773/561019/559562), fixed and permeabilized using BD Cytofix/Cytoperm™ reagents (Cat. No. 554714), and intracellular stained with either FITC anti-human IFN-γ (Cat. No. 554700; left panel), APC anti-human IL-4 (Cat. No.554486; center panel), or Alexa Fluor® 647 anti-human IL-17A (Cat. No. 560437; right panel). The dot plots were derived gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed on a BD FACSCalibur™ System.*

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

BD Biosciences

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United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	866.979.9408	32.2.400.98.95	0120.8555.90	65.6861.0633	55.11.5185.9995

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Suggested Companion Products

Catalog Number	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
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
349202	BD FACS™ Lysing Solution	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)
551773	PE Mouse Anti-Human CD196 (CCR6)	50 Tests	11A9
559562	PE Mouse Anti-Human CD196 (CCR6)	0.2 mg	11A9
560437	Alexa Fluor® 647 Mouse anti-Human IL-17A	100 Tests	SCPL1362

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. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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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)

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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)