**Technical Data Sheet**

**PE Mouse Anti-Human CD196 (CCR6)**

**Product Information**

- **Material Number:** 559562
- **Alternate Name:** BN-1; C-C chemokine receptor type 6; C-C CKR-6; CC-CKR-6; CCR-6; CD196
- **Size:** 0.2 mg
- **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

- **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 is counted 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 granulocytes. 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.

**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.

**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. 559562/561019/551773), fixed and permeabilized using BD Cytoperm/Cytofix 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.

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Application Notes

Application

Flow cytometry Routinely Tested

Recommended Assay Procedure:
The PE-conjugated 11A9 antibody (Cat. No. 559562/561019/551773) can be used for the immunofluorescent staining and flow cytometric analyses of human leukocytes (see image) and cell lines that express CCR6. Please titrate between 0.1 and 1.0 µg/test.

Suggested Companion Products

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<td>Alexa Fluor® 647 Mouse anti-Human IL-17A</td>
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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. 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.

References