Human CCR2 Antibody

Monoclonal Mouse IgG_{2B} Clone # 48607

Catalog Number: MAB150

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CCR-2 transfectants but not the parental cell line or CCR-5 transfectants.
Source	Monoclonal Mouse IgG_{2B} Clone # 48607
Purification	Protein A or G purified from ascites
Immunogen	NS0 mouse myeloma cell line transfected with human CCR2 Met1-Leu360 Accession # NP_001116868
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

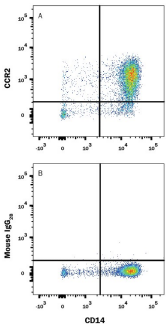
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10^6 cells	See Below
Immunohistochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

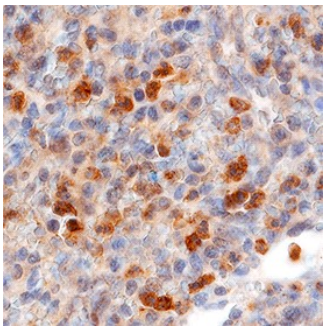
DATA

Flow Cytometry



Detection of CCR2 in Human Blood Monocytes by Flow Cytometry. Human peripheral blood monocytes were stained with Mouse Anti-Human CD14 PE-conjugated Monoclonal Antibody (Catalog # FAB3832P) and either (A) Mouse Anti-Human CCR2 Monoclonal Antibody (Catalog # MAB150) or (B) Mouse IgG_{2B} Flow Cytometry Isotype Control (Catalog # MAB0041) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). View our protocol for Staining Membrane-associated Proteins.

Immunohistochemistry



CCR2 in Human Tonsil. CCR2 was detected in immersion fixed paraffin-embedded sections of human tonsil using Mouse Anti-Human CCR2 Monoclonal Antibody (Catalog # MAB150) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CCR2 is a G-protein linked seven transmembrane domain spanning chemokine receptor that preferentially binds monocyte chemoattractant proteins-1 and -3 (MCP-1 and MCP-3). Two isoforms of this receptor (CCR2A and CCR2B) are expressed on cell surfaces as a result of alternate splicing from the same gene. These two CCR2 variants differ only at their intracellular carboxyl terminals, with the CCR2A form possessing 14 additional amino acids. This may provide a mechanism by which cells responding to similar extracellular ligands can activate different intracellular second messengers. Cells that respond to the action of MCP-1 and therefore are likely to express CCR2 receptors, include monocytes, T cells, NK cells, basophils, mast cells and dendritic cells. A recent report suggests that B cells may also express CCR2 receptors. The recognition that a variety of chemokine receptors, including CCR2, can serve as HIV fusion co-factors and as facilitators of T cell recruitment during inflammation makes chemokine receptor monitoring an important exercise in elucidating the HIV infection process and the regulation of inflammatory reactions.

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