Technical Data Sheet

RecombiMab anti-mouse CCR7 (CD197)

Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at https://bioxcell.com/terms-and-conditions.

Lot Specific Information

Lot Number: **Lot Specific***
Volume: **Lot Specific***
Concentration: **Lot Specific* (generally 4 to 11 mg/ml) ***
Total Protein: **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Product Information

Catalog Number:	**CP099**
Clone:	**C7Mab-2-CP099**
Isotype:	Mouse IgG2a, κ
Recommended Isotype Control(s):	RecombiMAb mouse IgG2a isotype control, unknown specificity
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Synthetic peptides corresponding to extracellular loops of mouse CCR7
Reported Applications:	Flow cytometry ELISA Immunohistochemistry (paraffin) For details on *in vivo* applications please contact technicalservice@bioxcell.com
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤0.5EU/mg (≤0.0005EU/μg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtration
Production:	Purified from mammalian cell supernatant in an animal-free facility
Purification:	Protein A
Aggregation:	<5% Determined by SEC
RRID:	
Molecular Weight:	150 kDa

Murine Pathogen Test Results

Mouse Norovirus: Negative, Mouse Parvovirus: Negative, Mouse Minute Virus: Negative, Mouse Hepatitis Virus: Negative, Reovirus Screen: Negative, Lymphocytic Choriomeningitis virus: Negative, Lactate Dehydrogenase-Elevating Virus: Negative, Mouse Rotavirus: Negative, Theiler's Murine Encephalomyelitis: Negative, Ectromelia/Mousepox Virus: Negative, Hantavirus: Negative, Polyoma Virus: Negative, Mouse Adenovirus: Negative, Sendai Virus: Negative, Mycoplasma Pulmonis: Negative, Pneumonia Virus of Mice: Negative, Mouse Cytomegalovirus: Negative, K Virus: Negative

Description

The C7Mab-2-CP099 monoclonal antibody is a recombinant, Fc-engineered chimeric version of the original C7Mab-2 antibody. The variable domain sequences are identical but the constant region sequences have been switched from Rat IgG2b, κ to Mouse IgG2a, κ for use in murine models. Species-matched chimeric antibodies exhibit regulated effector functions—including Fc receptor binding and complement activation—and result in less immunogenicity and formation of anti-drug antibodies (ADAs) than xenogenic antibodies in animal models. This antibody has an effector function competent Fc domain allowing for activation of Fcγ receptors (FcγRs) to trigger antibody-dependent cellular cytotoxicity (ADCC),

antibody-dependent cellular phagocytosis (ADCP), complement-dependent cytotoxicity (CDC) and opsonization to promote target cell depletion. The mouse IgG2a isotype demonstrates strong effector functions due to potent interaction with mFcγRIV, which is functionally similar to the FcγRIIIa receptor involved in human ADCC. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results over hybridoma derived antibodies. The C7Mab-2 monoclonal antibody reacts with extracellular loop 3 of mouse CC chemokine receptor type-7 (CCR7). The CCR7 protein is also called the MIP-3 beta receptor, EBI1, and CD197. CCR7 is expressed as a multipass transmembrane protein on a wide range of immune cells, such as naive T and B cells, central memory T cells, regulatory T cells (Tregs), natural killer (NK) cells, mature dendritic cells (DCs), plasmacytoid dendritic cells (pDCs), and some cancer cells. The primary ligands of CCR7 are CCL19 and CCL21, which are constitutively expressed in the high endothelial venules (HEVs) and lymph node parenchyma. CCR7-CCL19/CCL21 signaling promotes the migration of CCR7+ cells to secondary lymphoid organs (e.g., lymph nodes, thymus, and spleen). Experiments involving genetic knockout of CCR7 and impaired T cell migration to lymphoid organs have demonstrated the essential role of CCR7 for T cell recruitment in vivo. CCR7 is involved in the pathophysiology of cancer metastasis to lymph nodes, immuno-allergic reactions (including asthma), autoimmune diseases (e.g., rheumatoid arthritis and systemic lupus erythematosus), and infections (e.g., pneumonia, HIV-1, and malaria). Antibody-based blockade of CCR7 signaling-mediated chemotaxis is emerging as a promising strategy for experimental immunotherapy of cancers and other diseases.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Protocol Information

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/cp099?bxcs=9k1b3a#tab_references or scan the QR code below.

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