Technical Data Sheet

RecombiMAb anti-mouse CCR8

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:	**CP080**
Clone:	**C8Mab-2-CP080**
Isotype:	Mouse IgG2a, κ
Recommended Isotype Control(s):	RecombiMAb mouse IgG2a isotype control, unknown specificity
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Reported Applications:	Flow Cytometry Western blot Immunofluorescence For information on *in vivo* applications, please contact (technicalservice@bioxcell.com)
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	<1EU/mg (<0.001EU/μg) Determined by LAL gel clotting 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 G
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 C8Mab-2-CP080 monoclonal antibody is a recombinant, chimeric version of the original C8Mab-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. The anti-tumor activity of anti-CCR8 antibodies has been

demonstrated to require Fc-mediated effector function with studies confirming the superior mouse IgG2a antibody binding to mouse FcγRIII and mouse FcγRIV is crucial for NK cell-mediated ADCC and macrophage-mediated ADCP in mice. The highly controlled sequence and lack of genetic drift in recombinant antibodies also provides more reliable and reproducible results over hybridoma derived antibodies. The C8Mab-2 monoclonal antibody recognizes the N-terminal region (1–33 amino acids) of mouse C-C chemokine receptor type 8 (CCR8), also known as CKR-8, CDw198, CMKBRL2, CMKBR8, and GPRCY6. CCR8 is a seven-pass transmembrane chemokine receptor and a member of the G protein-coupled receptor (GPCR) family. CCR8 ligands include CCL1, CCL16, and CCL8 (mCCL8) or CCL18 (hCCL18, a functional analog of mouse CCL8). Human and mouse CCR8 as well as its primary ligand CCL1 are structurally related, and this ligand is critical for skin homing of T cells and the survival of the regulatory T cells (Tregs) as well as their chemotaxis into tumors. CCR8 is predominantly expressed on activated Tregs marking the most suppressive and proliferative Treg population residing in the TME. Regulatory T cells (Tregs) are immunosuppressive cells essential for maintaining peripheral immune tolerance and preventing harmful autoimmune responses. A deficiency in their number or function can lead to the development of autoimmune disorders. Conversely, an abundance of Tregs, particularly a high Treg-to-CD8+ T effector cell ratio, can hinder anti-tumor immune surveillance and promote cancer progression. CCR8, a surface receptor selectively expressed on activated Tregs within tumors, has emerged as a promising therapeutic target. Its selective expression offers the potential to enhance anticancer responses while minimizing the safety risks associated with earlier systemic Treg-targeting strategies. Recent in-vivo studies have documented the involvement of CCR8 in type 2 inflammatory diseases, including atopic dermatitis (AD) and allergic enteritis (AE). In the tumor microenvironment, CCR8+ Treg numbers directly correlate with an advanced state of cancer, and therapeutic depletion of CCR8+ tumor-infiltrating Tregs (ti-Tregs) is shown to exert antitumor immunity and synergism with anti-PD-1 therapy.

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/cp080?bxcs=9k1b3a#tab_references or scan the QR code below.

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