Technical Data Sheet

RecombiMAb anti-mouse CCR2 (CD192)

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:	**CP104**
Clone:	**C2Mab-6-CP104**
Isotype:	Mouse IgG2a, κ
Recommended Isotype Control(s):	RecombiMAb mouse IgG2a isotype control, unknown specificity
Recommended Dilution Buffer:	InVivoPure pH 8.0 Dilution Buffer
Immunogen:	Three KLH-conjugated synthetic peptides corresponding to the N-terminal sequence of mouse CCR2
Reported Applications:	Flow cytometry ELISA For details on *in vivo* applications please contact technicalservice@bioxcell.com
Formulation:	PBS, pH 8.0 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 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 C2Mab-6-CP104 monoclonal antibody is a recombinant, Fc-engineered chimeric version of the original C2Mab-6 antibody. The variable domain sequences are identical but the constant region sequences have been switched from Rat IgG1, 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. C2Mab-6-CP104 reacts with mouse CC chemokine receptor type-2 (CCR2) also known as MCP-1 receptor and CD192. CCR2 is the primary receptor of C-C motif ligand 2 (CCL2) also known as monocyte chemoattractant protein-1 (MCP-1). CCR2 can also bind CCL7 and CCL12. CCR2 is a multi-pass transmembrane G protein-coupled receptor (GPCR) that is expressed on natural killer (NK) cells, macrophages, peripheral blood monocytes, and activated T cells, B cells, and immature dendritic cells (DCs). CCL2-CCR2 signaling is involved in the regulation of immune cells' chemotaxis/migration, and during microbial infections, CCR2-positive macrophages and neutrophils drive innate immune responses. In neurobiology, CCR2 plays an important role in mediating peripheral nerve injury-induced neuropathic pain and facilitates the recruitment of macrophages/monocytes to the injury site following cerebral injury. The crosstalk between CCR2 on tumor-infiltrating immune and stromal cells and CCL2 on tumor cells is known to influence tumor growth, angiogenesis, and metastasis. CCR2 antagonists are often studied in relation to unwanted immune responses in inflammatory and autoimmune diseases, immunomodulation of the tumor microenvironment (TME) for enhancing anti-tumor immunity, and Treg function.

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/cp104?bxcs=9k1b3a#tab_references or scan the QR code below.

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