Technical Data Sheet

RecombiMAb anti-mouse ACKR4 (CCR11) (LALA-PG)

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:	**CP098**
Clone:	**A4Mab-3-CP098**
Isotype:	Mouse IgG2a (LALA-PG), κ
Recommended Isotype Control(s):	RecombiMAb mouse IgG2a (LALA-PG) isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Mutations:	LALA-PG
Immunogen:	A synthetic peptide corresponding to the N-terminal extracellular region of mACKR4 (amino acids 1-19)
Reported Applications:	Flow cytometry ELISA 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 A4Mab-3-CP098 monoclonal antibody is a recombinant, chimeric version of the original A4Mab-3 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. Additionally, A4Mab-3-CP098 contains LALA-PG mutations in the heavy chain Fc fragment rendering it unable to bind endogenous murine Fcγ receptors or C1q to induce antibody-dependent, cell-mediated cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC). The LALA-PG variant has demonstrated significantly

reduced effector function, C1q binding and C3 fixation compared to other common silencing mutations such as the LALA and DANG variants while retaining favorable biophysical and manufacturing properties. Species-matched chimeric antibodies demonstrate reduced immunogenicity and formation of anti-drug antibodies (ADAs) compared to xenogenic antibodies in animal models. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results over hybridoma derived antibodies. The A4Mab-3 monoclonal antibody reacts with mouse atypical chemokine receptor 4 (ACKR4), also known as CCR11, CCRL1, CCX CKR, PPR1, and CCBP2. ACKR4 is expressed on T cells, stromal cells, and a subset of lymphatic endothelial cells within the skin, spleen, and gut. ACKR4 is a seven-transmembrane domain-containing protein that belongs to the atypical chemokine receptors (ACKRs) family. Due to their function, ACKRs are considered chemokine decoy receptors, internalizing receptors (interceptors), or chemokine-scavenging receptors. They mediate β-arrestin-dependent internalization of chemokines, followed by lysosomal degradation of the receptor-ligand complex. ACKR4 plays a key role in regulating cell migration by reducing the availability of inflammatory chemokines, specifically CCL19, CCL22, and CCL25, thereby limiting migratory responses mediated by CCR7, CCR6, CCR4, and CCR9. ACKR4 negatively regulates CXCR3-induced chemotaxis and facilitates the homing of CC7+ dendritic cells through scavenging and shaping CCL19 and CCL21 gradients in lymph nodes. ACKR4 is also involved in the regulation of thymic T-cell development and suppression of spontaneous autoimmunity. Loss of ACKR4 in colorectal cancer in mice is reported to impair DC migration to tumor-draining lymph nodes, which leads to a reduced number of tumor-specific T cells and resistance to immune checkpoint blockade 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/cp098?bxcs=9k1b3a#tab_references or scan the QR code below.

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