Technical Data Sheet

RecombiMAb anti-mouse CXCR6 (CD186)

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:	**CP097**
Clone:	**Cx6MAb-1-CP097**
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 peptide corresponding to the N-terminal extracellular region of mouse CXCR6 (AA 1-19)
Reported Applications:	Flow cytometry Western blot 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 Cx6MAb-1-CP097 monoclonal antibody is a recombinant, Fc-engineered chimeric version of the original Cx4Mab-1 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. The Cx6Mab-1 monoclonal antibody reacts with the N-terminal extracellular ligand-binding domain of mouse CXC chemokine receptor 6 (mCXCR6) also known as CD186, BONZO, or STRL33. CXCR6 is expressed on naive CD8+ T cells and a subset of memory CD4+ T cells, natural killer T cells (NKTs), dendritic cells (DCs), pulmonary alveolar macrophages, and innate lymphoid cells (ILCs). The ligand for CXCR6 is C-X-C chemokine CXCL16 that is predominantly expressed in DCs, monocytes, and various other tissue cells, primarily epithelial cells. The CXCR6-CL16 interaction guides immune cell homing (T lymphocyte migration to peripheral tissues) and their activation, expansion, and cytotoxic activity. Retroviruses such as simian immunodeficiency viruses (SIVs), some strains of HIV-2, and macrophage-tropic HIV-1 use CXCR6 as a coreceptor in conjunction with CD4 to enter target cells. In solid tumors, CXCR6 mediates CD8+ T-cell homing to tumor stromal perivascular niches and promotes interactions with CXCL16+ DCs and IL-15 expression for facilitating the growth of T-cells inside the tumor microenvironment. CXCR6 expression is also linked to the activation of Akt/mTOR and ERK/MAPK pathways and other downstream targets responsible for cancer growth and metastasis. CXCR6's prognostic significance varies among malignancies, but it is regarded as a reliable biomarker to predict the response to anti-PD-1 immunotherapy in various cancers.

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/cp097?bxcs=9k1b3a#tab_references or scan the QR code below.

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