

Technical Data Sheet



RecombiMAb anti-mouse 4-1BB (CD137)

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: CP095
Clone: LOB12.3-CP095
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: Mouse CD137 human Fc fusion protein
Reported Applications: ELISA
in-vivo activation of 4-1BB*
*Reported for the original LOB12.3 antibody. For information on *in vivo* applications, please contact technicalservice@bioxcell.com
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: ≤ 0.5 EU/mg (≤ 0.0005 EU/ μ g)
Determined by LAL assay
Purity: $\geq 95\%$
Determined by SDS-PAGE
Sterility: 0.2 μ m 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 LOB12.3-CP095 monoclonal antibody is a recombinant, Fc-engineered chimeric version of the original LOB12.3 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 Fc γ receptors (Fc γ R) 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 LOB12.3 monoclonal antibody reacts with mouse 4-1BB, a TNF receptor superfamily member also known as CD137. 4-1BB is a 39 kDa transmembrane protein expressed by T lymphocytes, NK cells, dendritic cells, granulocytes, and mast cells. Upon binding its ligand 4-1BBL, 4-1BB provides costimulatory signals to both CD4 and CD8 T cells through the activation of NF-κB, c-Jun and p38 downstream pathways. The importance of the 4-1BB pathway has been underscored in a number of diseases, including cancer. Agonistic anti-4-1BB antibodies have been reported to induce T cell mediated antitumor immunity. The LOB12.3 antibody is an agonistic antibody that has been shown to stimulate 4-1BB signaling and delay tumor growth in vivo when administered in combination with immune checkpoint inhibitors.

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/cp095?bxcs=9k1b3a#tab_references or scan the QR code below.



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