# Technical Data Sheet

## RecombiMAb anti-mouse CD4 (LALA-PG)

bioxcell.com

**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 Website Link:** https://bioxcell.com/recombimab-anti-mouse-cd4-lala-pg-cp100

## Product Information

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|---|---|
| **Catalog Number:** | **CP100** |
| **Clone:** | **GK1.5-CP100** |
| **Isotype:** | Mouse IgG2a, 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:** | Mouse CTL clone V4 |
| **Reported Applications:** | *in vivo* CD4+ T cell blockade*<br>*in vitro* CD4+ T cell blockade*<br>Flow cytometry*<br>Western blot*<br>*Reported for the original rat IgG2b GK1.5 antibody |
| **Formulation:** | PBS, pH 7<br>Contains no stabilizers or preservatives |
| **Endotoxin:** | ≤0.5EU/mg (≤0.0005EU/μg)<br>Determined by LAL assay |
| **Purity:** | ≥95%<br>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%<br>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 GK1.5-CP100 monoclonal antibody is a recombinant, Fc-engineered chimeric version of the original GK1.5 antibody. The variable domain sequences are identical but the constant region sequences have been switched from rat IgG2b to

mouse IgG2a for use in murine models. Additionally, the constant region includes the Fc silencing mutation variant LALA-PG, rendering it unable to bind endogenous murine Fcγ receptors or C1q to induce antibody-dependent cell-mediated cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC). This antibody was designed for use in CD4 blockade without depleting CD4+ T cells through Fc effector activity. 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 CD4 antigen is a 55 kDa cell surface type I membrane glycoprotein belonging to the immunoglobulin superfamily. CD4 acts as a co-receptor which in cooperation with the T cell receptor (TCR) interacts with class II MHC molecules displayed by antigen presenting cells (APC). CD4 is expressed by the majority of thymocytes, most helper T cells, a subset of NK-T cells and weakly by dendritic cells and macrophages. CD4 plays an important role in the development of T cells and is required for mature T cells to function optimally.

## 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/recombimab-anti-mouse-cd4-lala-pg-cp100?utm_source=cr9k1b#tab_references or scan the QR code below.

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