

# Technical Data Sheet

## RecombiMAb anti-mouse CD25 (IL-2R $\alpha$ ) (LALA-PG)



[bioxcell.com](http://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-cd25-il-2r-alpha-lala-pg-cp220>

### Product Information

Catalog Number: CP220  
Clone: 7D4-CP220  
Isotype: Mouse IgG2a (LALA-PG),  $\kappa$   
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: HT-2 cell line  
Reported Applications: *in vitro* functional assay  
ELISA  
Western Blot  
Immunoprecipitation\*  
Flow cytometry\*  
\*Reported for the original clone 7D4  
Formulation: PBS, pH 7.0  
Contains no stabilizers or preservatives  
Endotoxin:  $\leq 0.5$  EU/mg ( $\leq 0.0005$  EU/ $\mu$ g)  
Determined by LAL assay  
Purity:  $\geq 95\%$   
Determined by SDS-PAGE  
Sterility: 0.2  $\mu$ m filtration  
Production: Purified from mammalian cell supernatant in an animal-free facility  
Purification: Protein A  
Aggregation:  $< 5\%$   
Determined by SEC  
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 7D4-CP220 monoclonal antibody is a recombinant, chimeric version of the original 7D4 antibody. The variable domain

sequences are identical but the constant region sequences have been switched from rat IgM,  $\kappa$  to mouse IgG2a,  $\kappa$  for use in murine models. Additionally, the constant region includes the Fc silencing mutation variant LALA-PG, rendering it unable to bind endogenous murine Fc $\gamma$  receptors or C1q to induce antibody-dependent cell-mediated cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC). This antibody reacts with the mouse interleukin-2 receptor alpha subunit (IL-2R $\alpha$ ) without blocking IL-2 signaling and is useful to target or track CD25+ cells without recruiting Fc effector functions promoting cell depletion and without disturbing IL-2 signaling. 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 and preserving FcRn-mediated half-life. 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. 7D4-CP220 reacts with the mouse interleukin-2 receptor alpha subunit (CD25, IL-2R $\alpha$ ). This antibody CD25 is a 55 kDa ligand-binding subunit (low-affinity monomer), and by itself, this transmembrane glycoprotein does not act as a signaling receptor. It forms a heterotrimeric receptor complex with IL-2R $\beta$  (CD122) and the common  $\gamma$  chain ( $\gamma$ c/CD132) to form the high-affinity signaling IL-2 receptor. CD25 is also known as IL-2R $\alpha$ , p55, Ly-43, and Tac antigen. It is expressed on activated mature T and B lymphocytes, thymocyte subsets, pre-B cells, and T regulatory cells (Tregs). CD25 plays roles in lymphocyte differentiation, activation, and proliferation. CD25 regulates immune tolerance by controlling the activity of Tregs that actively suppress autoimmune responses and maintaining immune homeostasis by suppressing autoreactive T-cells.

## 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-cd25-il-2r-alpha-lala-pg-cp220?utm\\_source=cr9k1b#tab\\_references](https://bioxcell.com/recombimab-anti-mouse-cd25-il-2r-alpha-lala-pg-cp220?utm_source=cr9k1b#tab_references) or scan the QR code below.



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