

Technical Data Sheet



RecombiMAb anti-mouse CD25 (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: CP084
Clone: PC-61-CP084
Isotype: Mouse IgG2a
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: IL-2-dependent cytolytic mouse T cell clone B6.1
Reported Applications: Western Blot*
Flow Cytometry*
CD25-dependent IL-2 signaling blockade*
*Reported for the original rat IgG1, λ antibody
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

PC-61-CP084 is a recombinant, Fc-engineered chimeric version of the original PC-61 (PC-61.5.3) antibody. The variable domain sequences are identical but the constant region sequences have been switched from rat IgG1, λ to mouse IgG2a, λ for optimal use in murine models. PC-61-CP084 also contains LALA-PG mutations in the heavy chain Fc fragment rendering it unable to bind endogenous murine Fc γ receptors or C1q to induce antibody-dependent, cell-mediated cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC). Fc-silent engineered PC-61 derivatives have demonstrated loss of

Treg-depleting and antitumor effects compared with effector-competent PC-61 derivatives but retain the ability to block IL2 signaling. Fc-silent PC-61 derivatives can preserve Treg numbers while functionally inactivate them by sustained IL-2 blockade to alter downstream Th differentiation and cytokine production without overt lymphoproliferation, highlighting distinct biological profiles. 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. Additionally, species-matched chimeric antibodies result in less immunogenicity and formation of anti-drug antibodies (ADAs) than 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 PC-61.5.3-CP084 monoclonal antibody reacts with mouse IL-2R α also known as CD25, Ly-43, p55, or Tac. IL-2R α is the 55 kDa ligand-binding subunit of the interleukin 2 receptor alpha chain. IL-2R α expression is largely restricted to tumor-infiltrating Treg cells in mice. Alone, the IL-2R α binds IL-2 with relatively low affinity however, when IL-2R α associates with IL-2R β (CD122) and the common gamma chain (CD132) the complex binds IL-2 with high affinity. The PC-61.5.3 antibody has been shown to inhibit the binding of IL-2 to both the low and high affinity IL-2 receptor forms and block CD25-dependent IL-2 signaling. References: Arce Vargas, Frederick et al. "Fc-Optimized Anti-CD25 Depletes Tumor-Infiltrating Regulatory T Cells and Synergizes with PD-1 Blockade to Eradicate Established Tumors." *Immunity* vol. 46,4 (2017): 577-586. doi:10.1016/j.immuni.2017.03.013 Huss, David J et al. "Anti-CD25 monoclonal antibody Fc variants differentially impact regulatory T cells and immune homeostasis." *Immunology* vol. 148,3 (2016): 276-86. doi:10.1111/imm.12609

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/cp084?bxcs=9k1b3a#tab_references or scan the QR code below.



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