

Technical Data Sheet



RecombiMAb anti-mouse LPAM-1 (Integrin $\alpha 4\beta 7$) (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: CP086
Clone: DATK32-CP086
Isotype: Mouse IgG2a (LALA-PG), 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: TK1 cells
Reported Applications: *in vivo* Integrin $\alpha 4\beta 7$ neutralization*
Flow cytometry*
*Reported for the original DATK32 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 DATK32-CP086 monoclonal antibody is a recombinant, chimeric version of the original DATK32 antibody. The variable domain sequences are identical but the constant region sequences have been switched from rat IgG2a, 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. Additionally, DATK32-CP086 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). 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. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results over hybridoma derived antibodies. The DATK32 monoclonal antibody reacts with mouse LPAM-1, also known as integrin α 4 β 7. The 130 kDa integrin β 7 chain associates with the 150 kDa integrin α 4 (CD49d) chain to form LPAM-1, a member of the Ig superfamily. LPAM-1 is expressed by peripheral lymphocytes, small subsets of thymocytes, and bone marrow progenitors. LPAM-1 binds VCAM-1 (CD106), MAdCAM-1, and fibronectin and facilitates lymphocyte adhesion and migration to the intestine and associated lymphoid tissues. The DATK32 antibody has been reported to block LPAM-1-mediated cell adhesion in vivo.

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/cp086?bxcs=9k1b3a#tab_references or scan the QR code below.



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