

Technical Data Sheet

RecombiMAb anti-mouse MAdCAM-1 (LALA-PG)



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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: CP229
Clone: MECA-367-CP229
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: Endothelial cells isolated from BALB/c mouse
Reported Applications: *in vivo* MAdCAM-1 neutralization
Immunofluorescence
*Reported for the original Rat IgG2a antibody
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: $\leq 0.5\text{EU/mg}$ ($\leq 0.0005\text{EU}/\mu\text{g}$)
Determined by LAL assay
Purity: $\geq 95\%$
Determined by SDS-PAGE
Sterility: $0.2\ \mu\text{m}$ 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 MECA-367-CP229 antibody is a recombinant, chimeric version of the original MECA-367 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. Additionally, the constant region includes the Fc silencing mutation variant LALA-PG, 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). This is useful for pure target blockade without Fc-mediated effector functions, so that the biological readout reflects MAdCAM-1 inhibition rather than immune cell depletion or Fc-dependent inflammation.

The LALA-PG variant has demonstrated significantly reduced effector function, C1q binding and C3 fixation compared to other common silencing mutations 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. The MECA-367-CP229 monoclonal antibody reacts with mouse MAdCAM-1 (mucosal addressin cell adhesion molecule-1) a 50-60 kDa member of the Ig superfamily. MAdCAM-1 is primarily expressed on high endothelial venules in Peyer's patches, mesenteric lymph nodes and gut lamina propria. MAdCAM-1 interacts with LPAM-1 and CD62L to facilitate lymphocyte tethering, rolling, and homing. The MECA-367 antibody has been shown to block the interaction of MAdCAM-1 with its receptor in vivo and in vitro.

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 [?utm_source=cr9k1b#tab_references](https://bioxcell.com/?utm_source=cr9k1b#tab_references) or scan the QR code below.



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