

# Technical Data Sheet

## RecombiMAb anti-mouse CD40L (CD154) (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:** CP034  
**Clone:** MR-1-CP034  
**Isotype:** Mouse IgG2a,  $\kappa$   
**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:** Activated mouse Th1 clone D1.6  
**Reported Applications:** *in vivo* blocking of CD40/CD40L signaling\*  
*in vitro* blocking of CD40/CD40L signaling\*  
Western blot\*  
\*Reported for the original Armenian hamster IgG MR-1 antibody

**Formulation:** PBS, pH 7.0  
Contains no stabilizers or preservatives

**Endotoxin:** <1EU/mg (<0.001EU/ $\mu$ g)  
Determined by LAL gel clotting assay

**Purity:** >95%  
Determined by SDS-PAGE

**Sterility:** 0.2  $\mu$ m filtration

**Production:** Purified from HEK293 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 MR-1-CP034 monoclonal antibody is a chimeric version of the original MR-1 antibody. The variable domain sequences are identical to the original MR-1 but the constant region sequences have been switched from Armenian hamster IgG to mouse IgG2a. The MR-1-CP034 antibody also contains a LALA-PG mutation in the Fc fragment rendering it unable to bind

to endogenous Fcγ receptors. The MR-1-CP034 antibody reacts with mouse CD154 also known as CD40 ligand. CD154 exists as a 39 kDa accessory molecule and belongs to the TNF superfamily of cytokines. CD154 is primarily expressed on the surface of activated CD4+ T lymphocytes but can also be expressed by platelets, mast cells, macrophages, basophils, NK cells, B lymphocytes, CD8+ T lymphocytes as well as non-hematopoietic cells including smooth muscle cells, endothelial cells, and epithelial cells. CD154 signals through CD40 and is thought to play a key role in T and B lymphocyte costimulation. The MR-1 monoclonal antibody has been reported to inhibit in vitro activation of B lymphocytes by blocking the binding of CD154 with CD40 on T helper cells as well as inhibit the formation of germinal centers and disrupt antigen-specific T cell responses. Additionally, the MR-1 antibody blocks interactions of T cells and antigen-presenting cells in vitro and blocks the development of experimental autoimmune disease 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.

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### Bio X Cell, LLC

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*Not for resale.*

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