

# Technical Data Sheet

## InVivoPlus anti-mouse CD40L (CD154)



**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:** BP0017-1  
**Clone:** MR-1  
**Isotype:** Armenian hamster IgG  
**Recommended Isotype Control(s):** InVivoPlus polyclonal Armenian hamster IgG  
**Recommended Dilution Buffer:** InVivoPure pH 7.0 Dilution Buffer  
**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  
**Formulation:** PBS, pH 7.0  
Contains no stabilizers or preservatives  
**Endotoxin:** <1EU/mg (<0.001EU/μg)  
Determined by LAL gel clotting assay  
**Purity:** >95%  
Determined by SDS-PAGE  
**Sterility:** 0.2 μm filtration  
**Production:** Purified from cell culture supernatant in an animal-free facility  
**Purification:** Protein A  
**Aggregation:** <5%  
Determined by DLS  
**RRID:** [AB\\_1107601](https://abnova.com/AB_1107601)  
**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 monoclonal 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.

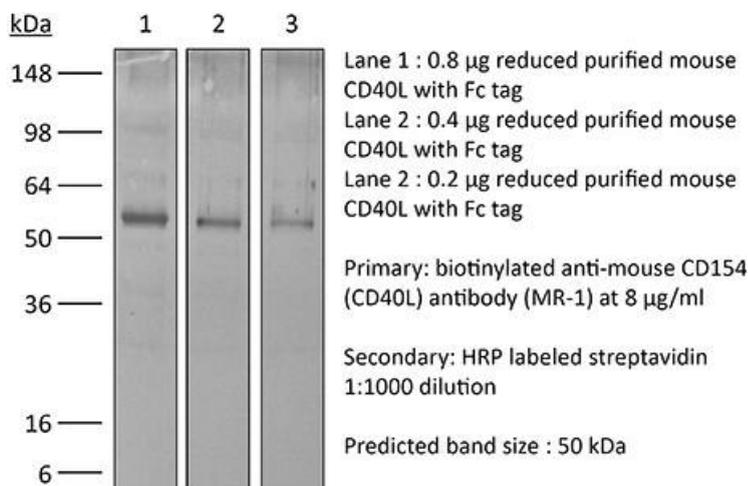
## Application References

For a complete list of references, visit [https://bioxcell.com/bp0017-1?bxcs=9k1b3a#tab\\_references](https://bioxcell.com/bp0017-1?bxcs=9k1b3a#tab_references) or scan the QR code below.



## Binding Validation

Validation data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, e-mail [technicalservice@bioxcell.com](mailto:technicalservice@bioxcell.com).



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*Not for resale.*

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