In Vivo MAb anti-mouse CD40L (CD154)

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: BE0017-1
- Clone: MR-1
- Isotype: Armenian Hamster IgG
- Recommended Isotype Control(s): In Vivo MAb polyclonal Armenian hamster IgG
- Recommended Dilution Buffer: In Vivo Pure 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: <2EU/μg (<0.002EU/μg)
- Determined by LAL gel clotting assay
- Purity: >95%
- Determined by SDS-PAGE
- Sterility: 0.2 μM filtered
- Production: Purified from tissue culture supernatant in an animal free facility
- Purification: Protein A
- RRID: AB_1107601
- Molecular Weight: 150 kDa

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.

Shelf-life and Storage
Store at the stock concentration at 4°C. Do not freeze.
All Bio X Cell antibodies have a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended. 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 bxcell.com/fags.

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://bxcell.com/product/m-cd154-cd40l/#references or scan the QR code below.

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Binding Validation

Western blot data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, email technicalservice@bxcell.com.

Lane 1: 0.8 µg reduced purified mouse CD40L with Fc tag
Lane 2: 0.4 µg reduced purified mouse CD40L with Fc tag
Lane 3: 0.2 µg reduced purified mouse CD40L with Fc tag

Primary: biotinylated anti-mouse CD154 (CD40L) antibody (MR-1) at 8 µg/ml
Secondary: HRP labeled streptavidin 1:1000 dilution

Predicted band size: 50 kDa