

## Ultra-LEAF™ Purified anti-mouse CD154 Antibody

<b>Catalog# / Size</b>	106515 / 100 µg 106516 / 1 mg 106517 / 5 mg 106518 / 25 mg 106519 / 50 mg 106520 / 100 mg
<b>Clone</b>	MR1
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	CD40 ligand (CD40L), gp39, T-BAM, TRAP, Ly-62, TNFSF5
<b>Isotype</b>	Armenian Hamster IgG
<b>Description</b>	CD154 is a 39 kD TNF superfamily member also known as CD40 ligand, gp39, T-BAM, TRAP, and Ly-62. CD154 is an accessory molecule expressed predominantly on activated CD4 <sup>+</sup> lymphocytes that bind CD40. CD154 plays an important role in T-B cell costimulation. The MR1 antibody has been reported to inhibit the activation of T and B lymphocytes <i>in vitro</i> and antigen-specific lymphocyte responses <i>in vivo</i> .

### Product Details

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<b>Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Armenian Hamster
<b>Immunogen</b>	Activated mouse Th1 clone D1.6
<b>Formulation</b>	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test.
<b>Preparation</b>	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
<b>Concentration</b>	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
<b>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">IHC-F, Block - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunohistochemical staining <sup>1,2</sup> of acetone-fixed frozen sections, and <i>in vitro</i> and <i>in vivo</i> blocking of ligand binding <sup>3-5</sup> . For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 106506) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated antibody (Cat. No. 106504) or biotinylated anti-Armenian hamster IgG (Cat. No. 405501) second step, followed by SAV-PE (Cat. No. 405204). The Ultra-LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. Nos. 106515-106520).
<b>Application References</b>	1. Lettesjö H, <i>et al.</i> 2000. <i>J. Immunol.</i> 165:4095. (IHC) 2. Dunn RJ, <i>et al.</i> 1997. <i>J. Histochem. Cytochem.</i> 45:129. (IHC) 3. Noelle RJ, <i>et al.</i> 1992. <i>P. Natl. Acad. Sci. USA</i> 89:6550. (Block) 4. Roy M, <i>et al.</i> 1995. <i>Eur. J. Immunol.</i> 25:596. (Block)
<b>(PubMed link indicates BioLegend citation)</b>	

5. Foy TM, *et al.* 1994. *J. Exp. Med.* 180:157. (Block)
6. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.

**RRID** AB\_2813945 (BioLegend Cat. No. 106515)  
AB\_2813946 (BioLegend Cat. No. 106516)  
AB\_2813947 (BioLegend Cat. No. 106517)  
AB\_2813948 (BioLegend Cat. No. 106518)  
AB\_2813949 (BioLegend Cat. No. 106519)  
AB\_2813950 (BioLegend Cat. No. 106520)

## Antigen Details

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<b>Structure</b>	TNF superfamily, 39 kD
<b>Distribution</b>	Activated CD4 <sup>+</sup> T cells
<b>Function</b>	T-B cell costimulation
<b>Ligand/Receptor</b>	CD40
<b>Cell Type</b>	T cells, Tregs
<b>Biology Area</b>	Costimulatory Molecules, Immunology
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press. 2. Noelle RJ, <i>et al.</i> 1992. <i>P. Natl. Acad. Sci. USA</i> 89:6550. 3. Bancherou J, <i>et al.</i> 1994. <i>Annu. Rev. Immunol.</i> 12:881. 4. Clark EA, <i>et al.</i> 1996. <i>P. Natl. Acad. Sci. USA</i> 83:4494.
<b>Gene ID</b>	<a href="#">21947</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

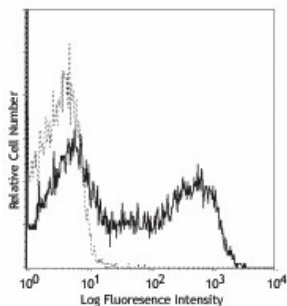
## Other Formats

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Biotin anti-mouse CD154, PE anti-mouse CD154, APC anti-mouse CD154, PE/Cyanine7 anti-mouse CD154, PerCP/Cyanine5.5 anti-mouse CD154, Ultra-LEAF™ Purified anti-mouse CD154

## Product Data

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PMA- and ionomycin-stimulated (6 hrs)  
BALB/c T cells stained with MR1 PE.

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