# CD154 Antibody – Mouse Monoclonal

## PRODUCT OVERVIEW

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| **Product Name** | CD154, Monoclonal Antibody |
| **Full Product Name** | CD154, soluble (CD40 Ligand, CD40-L, CD40L, CD40LG, gp39, hCD40L, HIGM1, IGM, IMD3, T-BAM, T-cell Antigen GP39, TNF-related Activation Protein, TRAP, Tumor Necrosis Factor Ligand Superfamily Member 5, TNF Ligand Superfamily Member 5, TNFSF5) (MaxLight 650 |
| **Product Gene Name** | anti-CD154 antibody |
| **Product Synonym Names** | CD40 Antigen Ligand; Hyper IgM Syndrome; T-B cell Activating Molecule |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1 |
| **Clone Number** | 9A159 |
| **Host** | Mouse |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. Labeled with MaxLight650. |
| **Purity/Purification** | Purified by protein A affinity chromatography from tissue culture supernatant. |
| **Specificity** | Recognizes human CD154, a 32kD glycoprotein also known as CD40 ligand. It is a member of the TNF family of molecules. |
| **Preparation and Storage** | Store at 4 degree C. Do Not Freeze. |
| **Molecular Weight** | 29,274 Da |
| **Chromosome Location** | Chromosome: X; NC_000023.10 (135730336..135742549). Location: Xq26 |
| **OMIM** | 300386 |
| **3D Structure** | ModBase 3D Structure for P29965 |
| **Immunogen** | Recombinant human soluble CD154 conjugated to BSA. |
| **Conjugate** | MaxLight650 |
| **Product Categories/Family for anti-CD154 antibody** | Antibodies; CD Markers |
| **Applications Tested/Suitable for anti-CD154 antibody** | FLISA, Western Blot (WB) |
| **Related Product Information for anti-CD154 antibody** | MBS6255518 is an antibody targeting CD154. Also known as CD154, soluble (CD40 Ligand, CD40-L, CD40L, CD40LG, gp39, hCD40L, HIGM1, IGM, IMD3, T-BAM, T-cell Antigen GP39, TNF-related Activation Protein, TRAP, Tumor Necrosis Factor Ligand Superfamily Member 5, TNF Ligand Superfamily Member 5, TNFSF5) (MaxLight 650. Reactive in Human. Host: Mouse. |
| **Product References and Citations for anti-CD154 antibody** | 1. Fabienne, P. et al (1996) J. Biol. Chem. 271:5965-5967. |
| **Other Notes** | Small volumes of anti-CD154 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD154. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 4557433 |
| **NCBI GeneID** | 959 |
| **NCBI Accession #** | NP_000065.1 |
| **UniProt Primary Accession #** | P29965 |
| **UniProt Related Accession #** | P29965 |
| **GenBank Nucleotide #** | NM_000074.2 |
| **NCBI Official Full Name** | CD40 ligand |
| **NCBI Official Synonym Full Names** | CD40 ligand |
| **NCBI Official Symbol** | CD40LG |
| **NCBI Official Synonym Symbols** | IGM; IMD3; TRAP; gp39; CD154; CD40L; HIGM1; T-BAM; TNFSF5; hCD40L |
| **UniProt Protein Name** | CD40 ligand |
| **UniProt Synonym Protein Names** | T-cell antigen Gp39; TNF-related activation protein; TRAP; Tumor necrosis factor ligand superfamily member 5 |
| **Protein Family** | CD40 ligand |
| **UniProt Gene Name** | CD40LG |
| **UniProt Synonym Gene Names** | CD40L; TNFSF5; TRAP; CD40-L; TRAP |
| **UniProt Entry Name** | CD40L_HUMAN |
| **NCBI Protein Information** | CD40 ligand; CD40-L; CD40 antigen ligand; T-cell antigen Gp39; T-B cell-activating molecule; TNF-related activation protein; tumor necrosis factor (ligand) superfamily member 5 |
| **NCBI Summary for CD154** | The protein encoded by this gene is expressed on the surface of T cells. It regulates B cell function by engaging CD40 on the B cell surface. A defect in this gene results in an inability to undergo immunoglobulin class switch and is associated with hyper-IgM syndrome. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for CD154** | CD40LG: Mediates B-cell proliferation in the absence of co- stimulus as well as IgE production in the presence of IL-4. Involved in immunoglobulin class switching. Defects in CD40LG are the cause of X-linked immunodeficiency with hyper-IgM type 1 (HIGM1); also known as X-linked hyper IgM syndrome (XHIM). HIGM1 is an immunoglobulin isotype switch defect characterized by elevated concentrations of serum IgM and decreased amounts of all other isotypes. Affected males present at an early age (usually within the first year of life) recurrent bacterial and opportunistic infections, including Pneumocystis carinii pneumonia and intractable diarrhea due to cryptosporidium infection. Despite substitution treatment with intravenous immunoglobulin, the overall prognosis is rather poor, with a death rate of about 10% before adolescence. Belongs to the tumor necrosis factor family.<br><br>Protein type: Membrane protein, integral; Cell adhesion<br><br>Chromosomal Location of Human Ortholog: Xq26<br><br>Cellular Component: extracellular space; integral to plasma membrane; integral to membrane; plasma membrane; external side of plasma membrane<br><br>Molecular Function: CD40 receptor binding; cytokine activity; tumor necrosis factor receptor binding<br><br>Biological Process: B cell proliferation; platelet activation; leukocyte adhesion; regulation of immune response; positive regulation of interleukin-12 production; immunoglobulin secretion; B cell differentiation; isotype switching; inflammatory response; regulation of immunoglobulin secretion; negative regulation of apoptosis<br><br>Disease: Immunodeficiency With Hyper-igm, Type 1 |
| **Research Articles on CD154** | **1.** Suppression of CD154 expression is a surrogate for suppression of proliferation. |

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