

## Mouse CD154 Antibody | anti-CD154 antibody

Anti-Hu CD154 PE-Cy7

|                               |                      |                                                |                                                         |
|-------------------------------|----------------------|------------------------------------------------|---------------------------------------------------------|
| CATALOG #<br><b>AAA129373</b> | HOST<br><b>Mouse</b> | REACTIVITY<br><b>Human, Non-human primates</b> | APPLICATIONS<br><b>Flow Cytometry, Functional Assay</b> |
|-------------------------------|----------------------|------------------------------------------------|---------------------------------------------------------|

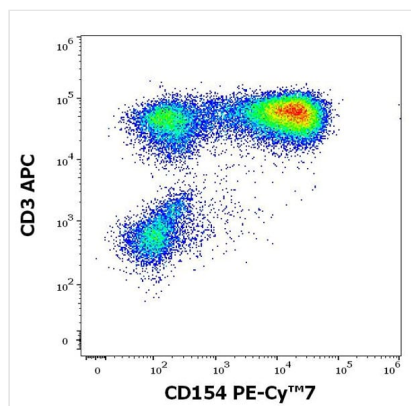
### PRODUCT SYNONYMS

CD154; Anti-Hu CD154 PE-Cy7; CD40 ligand; CD40L; TNFSF5; Ly62; gp39; T-BAM; anti-CD154 antibody

### PRODUCT SPECIFICATIONS

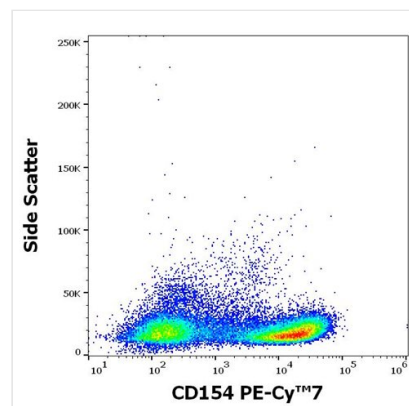
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|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Mouse                                                                                                                                                                                                                  |
| Reactivity                                      | Human, Non-human primates                                                                                                                                                                                              |
| Isotype                                         | Mouse IgG1                                                                                                                                                                                                             |
| Clone Number                                    | 24-31                                                                                                                                                                                                                  |
| Specificity                                     | The mouse monoclonal antibody 24-31 detects an extracellular epitope of CD154/CD40L (CD40-ligand), a 39 kDa cell surface type II glycoprotein expressed predominantly on activated CD4+ lymphocytes.                   |
| Purity/Purification                             | Purified antibody is conjugated with activated tandem dye of R-phycoerythrin-cyanine 7 (PE-Cy7) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography. |
| Form/Format                                     | Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide                                                                                                                                                |
| Applicable Applications for anti-CD154 antibody | FCM/FACS (Flow Cytometry)                                                                                                                                                                                              |
| Immunogen                                       | human CD154 fusion protein                                                                                                                                                                                             |
| Conjugation                                     | PE-Cy7                                                                                                                                                                                                                 |
| Preparation and Storage                         | Store at 2-8 degree C. Protect from prolonged exposure to light. Do not freeze.                                                                                                                                        |

### IMAGES



#### FCM/FACS (Flow Cytometry)

Flow cytometry multicolor surface staining pattern of human stimulated (PMA + Ionomycin) lymphocytes stained using anti-human CD3 (UCHT1) APC antibody (10ul reagent/100ul of peripheral whole blood) and anti-human CD154 (24-31) PE-Cy7 antibody (4ul reagent/100ul of peripheral whole blood).



#### FCM/FACS (Flow Cytometry)

Flow cytometry surface staining pattern of human stimulated (PMA + Ionomycin) peripheral blood mononuclear cells stained using anti-human CD154 (24-31) PE-Cy7 antibody (4ul reagent/100ul of peripheral whole blood).

ADDITIONAL INFORMATION

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| Related Product Information for anti-CD154 antibody | CD154/CD40L (CD40 ligand) is a member of the tumor necrosis factor family, and is expressed primarily on activated CD4+ lymphocytes, but also on mast cells, basophils, eosinophils and human dendritic cells. Its counter-receptor CD40 is expressed on antigen presenting cells, including dendritic cells, macrophages, and B cells, and also on fibroblasts. Triggering of CD40 by CD40L causes maturation of dendritic cells and upregulation of antigen presentation in functions of the MHC and costimulatory molecules. CD40L also functions as a direct stimulating factor for T cells. CD40L plays also roles e.g. in antibody class switching and modulation of apoptosis in the germinal center.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| References                                          | <p>*Brams P, Black A, Padlan EA, Hariharan K, Leonard J, Chambers-Slater K, Noelle RJ, Newman R: A humanized anti-human CD154 monoclonal antibody blocks CD154-CD40 mediated human B cell activation. Int Immunopharmacol. 2001 Feb;1(2):277-94., URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/?term=brams+p+black+a+padlan+ea">http://www.ncbi.nlm.nih.gov/pubmed/?term=brams+p+black+a+padlan+ea</a> ,*Berner B, Wolf G, Hummel KM, Muller GA, Reuss-Borst MA: Increased expression of CD40 ligand (CD154) on CD4+ T cells as a marker of disease activity in rheumatoid arthritis. Ann Rheum Dis. 2000 Mar;59(3):190-5., URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/?term=berner+b+wolf+g">http://www.ncbi.nlm.nih.gov/pubmed/?term=berner+b+wolf+g</a> ,*Barnhart B, Ford GS, Bhushan A, Song C, Covey LR: A polymorphic CD40 ligand (CD154) molecule mediates CD40-dependent signalling but interferes with the ability of soluble CD40 to functionally block CD154:CD40 interactions. Immunology. 2000 Jan;99(1):54-61., URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/10651941">http://www.ncbi.nlm.nih.gov/pubmed/10651941</a> ,*Kornbluth RS, Kee K, Richman DD: CD40 ligand (CD154) stimulation of macrophages to produce HIV-1-suppressive beta-chemokines. Proc Natl Acad Sci U S A. 1998 Apr 28;95(9):5205-10., URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/9560254">http://www.ncbi.nlm.nih.gov/pubmed/9560254</a> ,*Grammer AC, McFarland RD, Heaney J, Darnell BF, Lipsky PE: Expression, regulation, and function of B cell-expressed CD154 in germinal centers. J Immunol. 1999 Oct 15;163(8):4150-9., URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/?term=grammer+ac+heaney+j">http://www.ncbi.nlm.nih.gov/pubmed/?term=grammer+ac+heaney+j</a> ,*Fernandes MS, Gomes EM, Butcher LD, Hernandez-Alcoceba R, Chang D, Kansopon J, Newman J, Stone MJ, Tong AW: Growth inhibition of human multiple myeloma cells by an oncolytic adenovirus carrying the CD40 ligand transgene. Clin Cancer Res. 2009 Aug 1;15(15):4847-56., URL: <a href="https://pubmed.ncbi.nlm.nih.gov/19622582/">https://pubmed.ncbi.nlm.nih.gov/19622582/</a> ,*Kum WW, Hung RW, Cameron SB, Chow AW: Temporal sequence and functional implications of V beta-specific T cell receptor down-regulation and costimulatory molecule expression following in vitro stimulation with the staphylococcal superantigen Toxic shock syndrome toxin-1. J Infect Dis. 2002 Feb 15;185(4):555-60, URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/11865410">http://www.ncbi.nlm.nih.gov/pubmed/11865410</a>,</p> |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------|
| NCBI GI #                        | 15011846                                                                               |
| NCBI GeneID                      | 21947                                                                                  |
| NCBI Accession #                 | NP_035746.2                                                                            |
| NCBI GenBank Nucleotide #        | NM_011616.2                                                                            |
| UniProt Accession #              | P27548                                                                                 |
| Molecular Weight                 | 29,370 Da                                                                              |
| NCBI Official Full Name          | CD40 ligand                                                                            |
| NCBI Official Synonym Full Names | CD40 ligand                                                                            |
| NCBI Official Symbol             | Cd40lg                                                                                 |
| NCBI Official Synonym Symbols    | IGM; IMD3; Ly62; TRAP; gp39; CD154; Cd40l; HIGM1; Ly-62; T-BAM; CD40-L; Tnfsf5; Tnlg8b |
| NCBI Protein Information         | CD40 ligand                                                                            |
| UniProt Protein Name             | CD40 ligand                                                                            |
| UniProt Gene Name                | Cd40lg                                                                                 |
| UniProt Synonym Gene Names       | Cd40l; Tnfsf5; CD40-L; TRAP                                                            |
| UniProt Entry Name               | CD40L_MOUSE                                                                            |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

