

Alexa Fluor[®] 700 anti-human CD154 Antibody

Catalog# / Size	310845 / 25 tests 310846 / 100 tests
Clone	24-31
Regulatory Status	RUO
Other Names	CD40L, gp39, TRAP, T-BAM, TNFSF5
Isotype	Mouse IgG1, κ
Description	CD154 (CD40 ligand) is also known as CD40L, gp39, TRAP and T-BAM. CD40 ligand is a 32-39 kD type II transmembrane glycoprotein. It is a member of the TNF superfamily and is expressed on activated T cells. It has been reported to be important for B cell costimulation following binding of its receptor, CD40. Additionally, binding of CD40L to CD40 on B cells promotes the secretion of immunoglobulin and Ig isotype switching. CD40L is also involved in the regulation of cytokine production by T cells.

Product Details

Verified Reactivity	Human, Cross-Reactivity: Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor [®] 700 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood. * Alexa Fluor [®] 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor [®] 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome. Alexa Fluor [®] and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunofluorescence microscopy ^{1,3} and blocking of T cell-dependent B cell differentiation ^{1,2,4,5} . The LEAF™ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for functional assays (Cat. No. 310812). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 310828) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/ μ g).

Application References

1. Brams P, *et al.* 2001. *Int. Immunopharmacol.* 1:277. (Block, IF)
2. Rushworth SA, *et al.* 2002. *Transplantation* 73:635. (Block)
3. Berner B, *et al.* 2000. *Ann. Rheum. Dis.* 59:190. (IF)
4. Nordström T, *et al.* 2006. *J. Leukocyte Biol.* 79:319. (Block)
5. Zhang AL, *et al.* 2007. *Blood* doi:10.1182/blood-2007-02-076364. (Block) [PubMed](#)

6. Kuchen S, *et al.* 2007. *J. Immunol.* 179:5886.
7. Matus-Nicodermos R, *et al.* 2011. *J. Immunol.* 186:2164. [PubMed](#)
8. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)

RRID AB_2750052 (BioLegend Cat. No. 310845)
 AB_2750053 (BioLegend Cat. No. 310846)

Antigen Details

Structure	TNF superfamily, type II transmembrane glycoprotein, cleaved as soluble CD40L, 32-39 kD
Distribution	Activated T cells
Function	B cell costimulation
Ligand/Receptor	CD40
Cell Type	T cells, Tregs
Biology Area	Costimulatory Molecules, Immunology
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none"> 1. Najafian N, <i>et al.</i> 2003. <i>Expert Opin. Biol. Ther.</i> 3:227. 2. Racke M, <i>et al.</i> 2002. <i>Expert Opin. Ther. Targets.</i> 6:275. 3. Ford G, <i>et al.</i> 1999. <i>J. Immunol.</i> 162:4037.
Gene ID	959

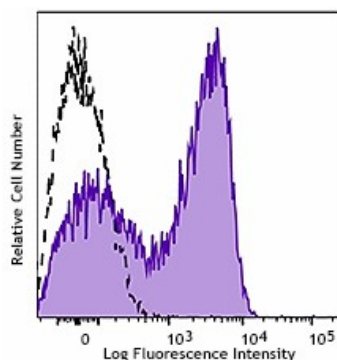
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD154 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD154, Brilliant Violet 785™ anti-human CD154, TotalSeq™-A0032 anti-human CD154, Alexa Fluor® 700 anti-human CD154, APC/Fire™ 750 anti-human CD154, Purified anti-human CD154, FITC anti-human CD154, PE anti-human CD154, PE/Cyanine5 anti-human CD154, APC anti-human CD154, TotalSeq™-C0032 anti-human CD154, TotalSeq™-B0032 anti-human CD154, TotalSeq™-D0032 anti-human CD154, Biotin anti-human CD154, Alexa Fluor® 488 anti-human CD154, Alexa Fluor® 647 anti-human CD154, Pacific Blue™ anti-human CD154, APC/Cyanine7 anti-human CD154, Brilliant Violet 421™ anti-human CD154, Brilliant Violet 605™ anti-human CD154, Ultra-LEAF™ Purified anti-human CD154, Brilliant Violet 510™ anti-human CD154, PE/Cyanine7 anti-human CD154, PerCP/Cyanine5.5 anti-human CD154, Brilliant Violet 711™ anti-human CD154

Product Data



PMA+ionomycin-stimulated (6 hours) human peripheral blood lymphocytes were stained with CD154 (clone 24-31) Alexa Fluor® 700 (filled histogram) or Mouse IgG1, κ Alexa Fluor® 700 isotype control (open histogram).

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