

APC/Cyanine7 anti-human CD154 Antibody

Catalog# / Size	310821 / 25 tests 310822 / 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
Reported 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 APC/Cyanine7 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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
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/µg, Azide-Free, 0.2 µm 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/µg).
Additional Product Notes	BioLegend is in the process of converting the name APC/Cy7 to APC/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our APC/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	<ol style="list-style-type: none"> 1. Brams P, <i>et al.</i> 2001. <i>Int. Immunopharmacol.</i> 1:277. (Block, IF) 2. Rushworth SA, <i>et al.</i> 2002. <i>Transplantation</i> 73:635. (Block) 3. Berner B, <i>et al.</i> 2000. <i>Ann. Rheum. Dis.</i> 59:190. (IF) 4. Nordström T, <i>et al.</i> 2006. <i>J. Leukocyte Biol.</i> 79:319. (Block) 5. Zhang AL, <i>et al.</i> 2007. <i>Blood</i> doi:10.1182/blood-2007-02-076364. (Block) PubMed 6. Kuchen S, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:5886. 7. Matus-Nicodermos R, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:2164. PubMed
(PubMed link indicates BioLegend citation)	

8. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)

Product Citations

1. Pissani F, *et al.* 2018. *J Virol.* 92:e01143. [PubMed](#)
2. Stervbo U, *et al.* 2019. *Front Immunol.* 0.949305556. [PubMed](#)

RRID

AB_2076097 (BioLegend Cat. No. 310821)
AB_2076096 (BioLegend Cat. No. 310822)

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

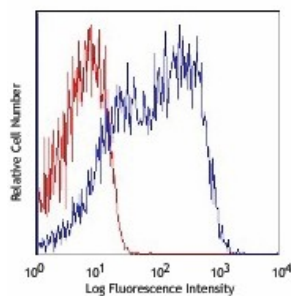
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD154, FITC anti-human CD154, PE anti-human CD154, PE/Cyanine5 anti-human CD154, APC anti-human CD154, Biotin anti-human CD154, Alexa Fluor® 488 anti-human CD154, Alexa Fluor® 647 anti-human CD154, Pacific Blue™ anti-human CD154, Brilliant Violet 785™ 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, Purified anti-human CD154 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD154, TotalSeq™-A0032 anti-human CD154, Alexa Fluor® 700 anti-human CD154, APC/Fire™ 750 anti-human CD154, TotalSeq™-C0032 anti-human CD154, TotalSeq™-B0032 anti-human CD154, TotalSeq™-D0032 anti-human CD154, PE/Fire™ 810 anti-human CD154

Product Data



TPA+ ionomycin-stimulated human PBMCs (5 hours) stained with 24-31 APC/Cyanine7

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