

Alexa Fluor[®] 647 anti-mouse IL-17A Antibody

Catalog# / Size	506911 / 25 µg 506912 / 100 µg
Clone	TC11-18H10.1
Regulatory Status	RUO
Other Names	Interleukin-17, Cytotoxic T lymphocyte-associated antigen 8 (CTLA-8)
Isotype	Rat IgG1, κ
Description	IL-17, also known as CTLA-8, is a T cell-expressed pleiotropic cytokine that exhibits a high degree of homology to a protein encoded by the ORF13 gene of herpes virus Saimiri. IL-17 is produced by Th cells (Th17) that are distinct from the traditional Th1- and Th2-cell subsets. IL-23 plays an important role in triggering IL-17 production. Both recombinant and natural IL-17 have been shown to exist as disulfide linked homodimers. IL-17 exhibits multiple biological activities on a variety of cells including: the induction of IL-6 and IL-8 production in fibroblasts, activation of NF-κB, and costimulation of T cell proliferation. IL-17 is an essential inflammatory mediator in the development of autoimmune diseases. Neutralization of IL-17 with monoclonal antibody is able to ameliorate the disease course.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	<i>E. coli</i> expressed, recombinant mouse IL-17A
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor [®] 647 under optimal conditions.
Concentration	0.5 mg/ml
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	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.25µg per 10 ⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor [®] 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm. 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	ELISA Capture ^{3,4} and ELISPOT Capture ⁵ : The purified TC11-18H10.1 antibody is useful as the capture antibody in a sandwich ELISA, when used in conjunction with the biotinylated TC11-8H4 antibody (Cat. No. 507002) as the detecting antibody and recombinant mouse IL-17 (Cat. No. 576009) as the standard. Flow Cytometry ^{2-4,7,8,11,12} : The TC11-18H10.1 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IL-17-producing cells within mixed cell populations. Neutralization ^{6,9} : The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of mouse IL-17 bioactivity <i>in vivo</i> and <i>in vitro</i> (Cat. No. 506906).

Application References

(PubMed link indicates BioLegend citation)

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2. Schubert D, *et al.* 2004. *J. Immunol.* 172:4503. (ICFC)
3. Infante-Duarte C, *et al.* 2000. *J. Immunol.* 165:6107. (ICFC, ELISA Capture)
4. Harrington LE, *et al.* 2005. *Nature Immunol.* doi:10.1038/ni1254. (ICFC, ELISA Capture)
5. Nekrasova T, *et al.* 2005. *J. Immunol.* 175:2734. (ELISPOT Capture)
6. Yen D, *et al.* 2006. *J. Clin. Invest.* 116:1310. (Neut)
7. Ehrchiou D, *et al.* 2007. *J. Exp. Med.* 204:1519. (ICFC)
8. Kang SG, *et al.* 2007. *J. Immunol.* 179:3724. (ICFC)
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11. Wang C, *et al.* 2009. *Mucosal Immunol* 2:173. (ICFC) [PubMed](#)
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13. Kivisäkk P, *et al.* 2009. *Ann. Neurol.* 65:457. [PubMed](#)
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Product Citations

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5. Severa M, *et al.* 2014. *J Immunol.* 192:2291. [PubMed](#)
6. Kawashima H, *et al.* 2013. *J Immunol.* 191:3614. [PubMed](#)
7. Wang Z *et al.* 2018. *Immunity.* 49(1):80-92. [PubMed](#)
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11. Royzman D, *et al.* 2019. *Front Immunol.* 10:633. [PubMed](#)
12. Zeng J, *et al.* 2020. *Int J Biol Sci.* 1.939583333. [PubMed](#)
13. Mykkänen O, *et al.* 2014. *PLoS One.* 9:114790. [PubMed](#)
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RRID

AB_536013 (BioLegend Cat. No. 506911)
AB_536014 (BioLegend Cat. No. 506912)

Antigen Details

Structure	Cytokine; dimer; 15 kD (Mammalian).
Bioactivity	Secretion of IL-6, IL-8, G-CSF, prostaglandin E2 by epithelial, endothelial or fibroblastic cells; stimulates cell migration, cord formation, and IL-6 secretion by stromal cells
Cell Sources	CD4 ⁺ memory T cells
Cell Targets	Fibroblasts, epithelial and endothelial cells, stromal cells
Receptors	IL-17R (CD217)
Biology Area	Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none">1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook.</i> Academic Press San Diego.2. Numasaki M, <i>et al.</i> 2002. <i>Blood</i> 101:2620.3. Fossiez F, <i>et al.</i> 1996. <i>J. Exp. Med.</i> 183:2593.4. Yao Z, <i>et al.</i> 1997. <i>Cytokine</i> 9:794.5. Dong C. 2006. <i>Nat. Rev. Immunol.</i> 6:329.6. Hofstetter HH, <i>et al.</i> 2005 <i>Cell. Immunol.</i> 237:123.
Gene ID	16171

Related Protocols

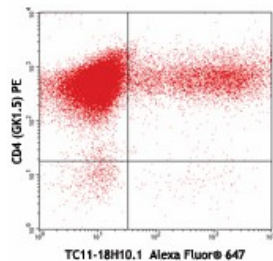
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

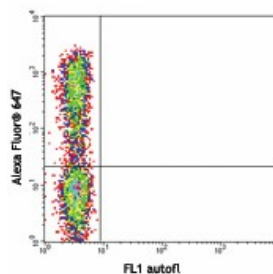
Other Formats

PE anti-mouse IL-17A, Purified anti-mouse IL-17A, FITC anti-mouse IL-17A, Alexa Fluor® 488 anti-mouse IL-17A, Alexa Fluor® 647 anti-mouse IL-17A, Alexa Fluor® 700 anti-mouse IL-17A, APC anti-mouse IL-17A, Pacific Blue™ anti-mouse IL-17A, PerCP/Cyanine5.5 anti-mouse IL-17A, PE/Cyanine7 anti-mouse IL-17A, Brilliant Violet 421™ anti-mouse IL-17A, Brilliant Violet 605™ anti-mouse IL-17A, Brilliant Violet 650™ anti-mouse IL-17A, Brilliant Violet 785™ anti-mouse IL-17A, Brilliant Violet 510™ anti-mouse IL-17A, Purified anti-mouse IL-17A (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse IL-17A, APC/Cyanine7 anti-mouse IL-17A, Brilliant Violet 711™ anti-mouse IL-17A, PerCP anti-mouse IL-17A, Ultra-LEAF™ Purified anti-mouse IL-17A

Product Data



PMA/ionomycin-stimulated (5 hours)
Th17 polarized C57BL/6 mouse CD4+ T
cells surface stained with CD4 (GK1.5)
PE, then intracellularly stained with
TC11-18H10.1 Alexa Fluor® 647



PMA (20 ng/ml) + ionomycin (1 µg/ml) -
stimulated (6 hours + monensin, 2 ÅµM)
mouse thymoma cell line EL-4
intracellularly stained with TC11-
18H10.1 Alexa Fluor® 647

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