Brilliant Violet 785™ anti-mouse IL-17A Antibody

Catalog# / Size	506928 / 50 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	*E. coli* expressed, recombinant mouse IL-17A
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 Brilliant Violet 785™ under optimal conditions.
Concentration	0.2 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 ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 785™ excites at 405 nm and emits at 785 nm. The bandpass filter 780/60 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 785™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 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 *in vivo* and *in vitro* (Cat. No. 506906).

Application References

(PubMed link indicates BioLegend citation)

1. Kennedy J, *et al.* 1996. *J. Interferon Cytokine Res.* 16:611.
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. Ehirchiou D, *et al.* 2007. *J. Exp. Med.* 204:1519. (ICFC)
8. Kang SG, et al. 2007. *J. Immunol.* 179:3724. (ICFC)
9. Smith E, *et al.* 2008. *J. Immunol.* 181:1357. (Neut) PubMed
10. Neufert C, *et al.* 2007. *Eur. J. Immunol.* 37:1809. PubMed
11. Wang C, *et al.* 2009. *Mucosal Immunol* 2:173. (ICFC) PubMed
12. Cui Y, *et al.* 2009. *Invest. Ophth. Vis. Sci.* 50:5811. (ICFC) PubMed
13. Kivisäkk P, *et al.* 2009. *Ann. Neurol.* 65:457. PubMed
14. Cooney LA, *et al.* 2011. *J. Immunol.* 187:4440. PubMed
15. Ma Y, *et al.* 2012. *PLoS One.* 7:e40763. PubMed
16. Murakami R, *et al.* 2013. *PLoS One.* 8:73270. PubMed

Product Citations

1. Ogbechi J, *et al.* 2022. Front Immunol. 13:1001956. PubMed
2. Khakhum N, *et al.* 2021. NPJ Vaccines. 6:72. PubMed

RRID

AB_2629787 (BioLegend Cat. No. 506928)

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

1. Fitzgerald K, *et al.* Eds. 2001. The Cytokine FactsBook. Academic Press San Diego.
2. Numasaki M, *et al.* 2002. *Blood* 101:2620.
3. Fossiez F, *et al.* 1996. *J. Exp. Med.* 183:2593.
4. Yao Z, *et al.* 1997. *Cytokine* 9:794.
5. Dong C. 2006. *Nat. Rev. Immunol.* 6:329.
6. Hofstetter HH, *et al.* 2005 *Cell. Immunol.* 237:123.

Gene ID

16171

Related Protocols

Surface and Intracellular Cytokine Staining for Flow Cytometry - Video

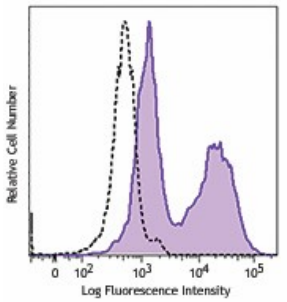
Intracellular Flow Cytometry Staining Protocol

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 (six hours) mouse thymoma cell line EL-4 (in the presence of monensin) was intracellularly stained with IL-17 (clone TC11-18H10.1) Brilliant Violet 785™ (filled histogram) or rat IgG1, κ Brilliant Violet 785™ isotype control (open histogram).

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