Brilliant Violet 785™ anti-human IL-2 Antibody

Catalog# / Size	500347 / 25 tests 500348 / 100 tests
Clone	MQ1-17H12
Regulatory Status	RUO
Other Names	Interleukin-2, T cell growth factor (TCGF), Eosinophil differentiation factor (EDF), Killer cell helper factor (KHF), Macrophage-activating factor for cytotoxicity I (MAF-C I), Thymocyte differentiation factor (TDF)
Isotype	Rat IgG2a, κ
Description	IL-2 is a potent lymphoid cell growth factor which exerts its biological activity primarily on T cells, promoting proliferation and maturation. Additionally, IL-2 has been found to stimulate growth and differentiation of B cells, NK cells, LAK cells, monocytes, and oligodendrocytes.

Product Details

Verified Reactivity	Human
Reported Reactivity	Cat, Chimpanzee, Baboon, Cynomolgus, Rhesus, Sooty Mangabey
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	*E. coli* - expressed recombinant human IL-2
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	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	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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. 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 or ELISPOT Capture[2,3]:** The purified MQ1-17H12 antibody is useful as the capture antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the Biotin anti-human IL-2 antibody (Cat. No. 517605) as the detecting antibody. The Ultra-LEAF™ purified

antibody is suggested for ELISPOT capture. For ELISPOT capture applications, a concentration range of 4.0 - 8.0 µg/mL is recommended.
Additional reported applications (for the relevant formats) include: immunoprecipitation[2], immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections[1,4-6,8], neutralization[13], and immunocytochemistry.

Note: For testing human IL-2 in serum or plasma, BioLegend's LEGEND MAX™ Kit (Cat. No. 431807) is specially developed and recommended.

Clone MQ1-17H12 cross-reacts to Cat[15]

Application References

(PubMed link indicates BioLegend citation)

1. Andersson J, *et al.* 1994. *Immunology* 83:16. (IHC)
2. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (IP)
3. Abrams JS. 1995. *Curr. Prot. Immunol.* Unit 6.20.
4. Fernandez V, *et al.* 1994. *Eur. J. Immunol.* 24:1808. (IHC)
5. Skansen-Saphir U, *et al.* 1994. *Eur. J. Immunol.* 24:916. (IHC)
6. Andersson U, *et al. Detection and Quantification of Gene Expression*. New York:Springer-Verlag. (IHC)
7. Prussin C, *et al.* 1995. *J. Immunol. Methods.* 188:117.
8. Raqib R, *et al.* 2002. *Infect. Immun.* 70:3199. (IHC)
9. Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113. PubMed
10. Colleton BA, *et al.* 2009. *J Virol.* 83:6288. PubMed
11. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
12. Rout N, *et al.* 2010. *PLoS One* 5:e9787. (FC)
13. Yeap SK, *et al.* 2013. *BMC Complement Altern.* Med. 13:145. (Neut)
14. Wu Z, *et al.* 2015. *J Virol.* 89:6435. PubMed
15. Maksaereekul S, *et al.* 2009. *Vaccine.* 28:3754 (FC) PubMed

Product Citations

1. Gullà A, *et al.* 2021. Cancer Discov. . PubMed
2. Gullà A, *et al.* 2021. Cancer Discov. 2:468. PubMed

RRID

AB_2566470 (BioLegend Cat. No. 500347)
AB_2566471 (BioLegend Cat. No. 500348)

Antigen Details

Structure	Cytokine; 15.4 kD (Mammalian)
Bioactivity	Proliferation of T lymphocytes, B cells, anti-inflammatory, hematopoiesis, tumor surveillance
Cell Sources	T cells
Cell Targets	T cells, B cells, NK cells, LAK cells, monocytes, macrophages, oligodendrocytes
Receptors	High affinity heterotrimer of IL-2Rα/β/γ, intermediate affinity homodimer IL-2Rα (CD25; p55; Tac) and heterodimer IL-2Rβ (CD122)/γ; γ-subunit (CD132) in common with IL-4R, IL-7R, IL-13R, IL-15R
Cell Type	Tregs
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. Taniguchi T, *et al.* 1993. *Cell* 73:5. 3. Nistico G. 1993. *Prog. Neurobiol.* 40:463. 4. Waldmann T, *et al.* 1993. *Ann. NY Acad. Sci.* 685:603.
Regulation	Upregulated by NFAT; downregulated by TCF-8 and CIF (colostrums inhibitory factor)
Gene ID	3558

Related Protocols

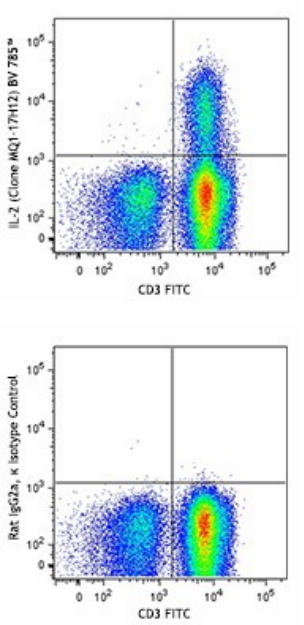
Surface and Intracellular Cytokine Staining for Flow Cytometry - Video

Intracellular Flow Cytometry Staining Protocol

Other Formats

APC anti-human IL-2, FITC anti-human IL-2, PE anti-human IL-2, Purified anti-human IL-2, Alexa Fluor® 488 anti-human IL-2, Alexa Fluor® 647 anti-human IL-2, Alexa Fluor® 700 anti-human IL-2, PerCP/Cyanine5.5 anti-human IL-2, Pacific Blue™ anti-human IL-2, PE/Cyanine7 anti-human IL-2, Brilliant Violet 421™ anti-human IL-2, Brilliant Violet 605™ anti-human IL-2, Brilliant Violet 650™ anti-human IL-2, Brilliant Violet 510™ anti-human IL-2, Brilliant Violet 711™ anti-human IL-2, APC/Cyanine7 anti-human IL-2, Purified anti-human IL-2 (Maxpar® Ready), PE/Dazzle™ 594 anti-human IL-2, Brilliant Violet 785™ anti-human IL-2, PerCP anti-human IL-2, APC/Fire™ 750 anti-human IL-2, Ultra-LEAF™ Purified anti-human IL-2

Product Data



Human peripheral blood lymphocytes were stimulated with PMA and ionomycin for six hours (in the presence of monensin), surface stained with CD3 FITC, fixed, permeabilized, and then stained with IL-2 (clone MQ1-17H12) Brilliant Violet 785™ (top) or rat IgG2a, κ Brilliant Violet 785™ isotype control (bottom).

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