

PE anti-human IL-2 Antibody

Catalog# / Size	500306 / 25 tests 500307 / 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	<i>E. coli</i> - 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 PE under optimal conditions.
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.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	<p>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.</p> <p>Additional reported applications (for the relevant formats) include: immunoprecipitation², immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections^{1,4-6,8}, neutralization¹³, and immunocytochemistry.</p> <p>Note: For testing human IL-2 in serum or plasma, BioLegend's LEGEND MAX™ Kit (Cat. No. 431807) is specially developed and recommended.</p> <p>Clone MQ1-17H12 cross-reacts to Cat¹⁵</p>
Application References	<ol style="list-style-type: none"> Andersson J, <i>et al.</i> 1994. <i>Immunology</i> 83:16. (IHC) Abrams J, <i>et al.</i> 1992. <i>Immunol. Rev.</i> 127:5. (IP) Abrams JS. 1995. <i>Curr. Prot. Immunol.</i> Unit 6.20. Fernandez V, <i>et al.</i> 1994. <i>Eur. J. Immunol.</i> 24:1808. (IHC) Skansen-Saphir U, <i>et al.</i> 1994. <i>Eur. J. Immunol.</i> 24:916. (IHC)
(PubMed link indicates BioLegend citation)	

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. Maksaarekul S, *et al.* 2009. *Vaccine.* 28:3754 (FC) [PubMed](#)

Product Citations

1. Ajith A, *et al.* 2021. *Front Immunol.* 12:687715. [PubMed](#)
2. Dhariwala MO, *et al.* 2020. *Cell Rep Med.* 1:100132. [PubMed](#)
3. Cella M, *et al.* 2019. *Nat Immunol.* 1.513888889. [PubMed](#)
4. Luo X, *et al.* 2020. *Front Immunol.* 11:623. [PubMed](#)
5. Woldemeskel BA, *et al.* 2020. *J Clin Invest.* 130:6631. [PubMed](#)
6. Mastelic-Gavillet B, *et al.* 2019. *J Immunother Cancer.* 7:257. [PubMed](#)
7. Costa-Martins AG, *et al.* 2021. *Cell Rep Med.* 2:100465. [PubMed](#)
8. Lindesmith LC, *et al.* 2020. *Cell Mol Gastroenterol Hepatol.* 0.586805556. [PubMed](#)
9. Weisberg SP, *et al.* 2020. *Cell Reports.* 29(12):3916-3932.e5.. [PubMed](#)
10. Sung BY, *et al.* 2022. *J Clin Invest.* 132:. [PubMed](#)
11. Kobayashi Y, *et al.* 2020. *Int J Oncol.* 999:56. [PubMed](#)
12. van der Ploeg K, *et al.* 2022. *Cell Rep Med.* 3:100640. [PubMed](#)
13. Bartolomé-Casado R, *et al.* 2020. *Mucosal Immunol.* 14:402. [PubMed](#)
14. Fan Z, *et al.* 2020. *EMBO Mol Med.* 12:e11571. [PubMed](#)
15. Nel I, *et al.* 2021. *Diabetologia.* 64(10):2306-2321. [PubMed](#)
16. Harper JL, *et al.* 2020. *Nat Med.* 519:26. [PubMed](#)
17. Mikkelsen S, *et al.* 2010. *Virology.* 403:163. [PubMed](#)
18. Gao X, *et al.* 2022. *iScience.* 25:104911. [PubMed](#)
19. Salvany-Celades M *et al.* 2019. *Cell Rep.* 27(9):2537-2547 . [PubMed](#)
20. Boutboul D, *et al.* 2018. *J Clin Invest.* 128:3071. [PubMed](#)
21. Thieme CJ, *et al.* 2020. *Cell Rep Med.* 1:100092. [PubMed](#)
22. Dykema AG, *et al.* 2021. *J Clin Invest.* 131:. [PubMed](#)
23. Olafsdottir TA, *et al.* 2022. *Commun Biol.* 5:914. [PubMed](#)
24. Sashihara J, *et al.* 2011. *PLoS One.* 6:e1002308. [PubMed](#)
25. Shen C, *et al.* 2021. *BMC Med.* 19:283. [PubMed](#)

RRID

AB_315093 (BioLegend Cat. No. 500306)
 AB_315094 (BioLegend Cat. No. 500307)

Antigen Details

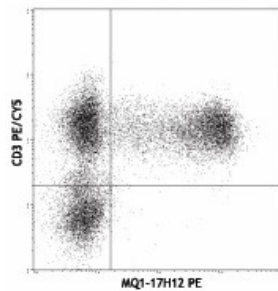
Structure	Cytokine; 15.4 kD (Mammalian)
Bioactivity	Proliferation of T lymphocytes, B cells, anti-inflammatory, hematopoiesis, tumor surveillance
Cell Sources	T cells
Cell Targets	T cells, B cells, NK cells, LAK cells, monocytes, macrophages, oligodendrocytes
Receptors	High affinity heterotrimer of IL-2R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

Related Protocols

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



PMA/Ionomycin-stimulated human PBMCs were stained with CD3 PE/Cy5 and MQ1-17H12 PE

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