

## PerCP/Cyanine5.5 anti-human IL-2 Antibody

<b>Catalog# / Size</b>	500321 / 25 tests 500322 / 100 tests
<b>Clone</b>	MQ1-17H12
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	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)
<b>Isotype</b>	Rat IgG2a, $\kappa$
<b>Description</b>	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

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Cat, Chimpanzee, Baboon, Cynomolgus, Rhesus, Sooty Mangabey
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	<i>E. coli</i> - expressed recombinant human IL-2
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with PerCP/Cyanine5.5 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The IL-2 antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.  * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
<b>Application Notes</b>	<b>ELISA or ELISPOT Capture<sup>2,3</sup>:</b> 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 $\mu$ g/mL is recommended. <b>Additional reported applications (for the relevant formats) include:</b> immunoprecipitation <sup>2</sup> , immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections <sup>1,4-6,8</sup> , neutralization <sup>13</sup> , and immunocytochemistry.  <b>Note:</b> 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 <sup>15</sup>
<b>Additional Product Notes</b>	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact <a href="#">Technical Service</a> if you have any questions.

## 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)
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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. Liu F, *et al.* 2016. *PLoS Pathog.* 12: 1005663. [PubMed](#)
2. Amelio P, *et al.* 2017. *PLoS Negl Trop Dis.* 10.1371/journal.pntd.0005817. [PubMed](#)
3. Cook CP, *et al.* 2022. *Cell Rep Med.* 3:100715. [PubMed](#)
4. Awasthi S, *et al.* 2017. *PLoS Pathog.* 10.1371/journal.ppat.1006141. [PubMed](#)
5. Chiu Y, *et al.* 2016. *Sci Rep.* 6:19227. [PubMed](#)
6. Fourcade J, *et al.* 2010. *J Exp Med.* 207:2175. [PubMed](#)
7. Fang F, *et al.* 2022. *JCI Insight.* 7:. [PubMed](#)
8. Liu H, *et al.* 2021. *J Immunother Cancer.* 9:. [PubMed](#)
9. Souza M, *et al.* 2012. *J Immunol.* 188:5166. [PubMed](#)
10. Fang F, *et al.* 2021. *Cell Rep.* 37:109981. [PubMed](#)
11. Chiurchiù V, *et al.* 2016. *Sci Transl Med.* 8: 353ra111. [PubMed](#)
12. Nomura T, *et al.* 2012. *J Virol.* 86:6481. [PubMed](#)
13. Steindor M, *et al.* 2015. *PLoS One.* 10:119737. [PubMed](#)

## RRID

AB\_2123667 (BioLegend Cat. No. 500321)  
AB\_2264650 (BioLegend Cat. No. 500322)

## Antigen Details

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<b>Structure</b>	Cytokine; 15.4 kD (Mammalian)
<b>Bioactivity</b>	Proliferation of T lymphocytes, B cells, anti-inflammatory, hematopoiesis, tumor surveillance
<b>Cell Sources</b>	T cells
<b>Cell Targets</b>	T cells, B cells, NK cells, LAK cells, monocytes, macrophages, oligodendrocytes
<b>Receptors</b>	High affinity heterotrimer of IL-2R $\alpha$ / $\beta$ / $\gamma$ , intermediate affinity homodimer IL-2R $\alpha$ (CD25; p55; Tac) and heterodimer IL-2R $\beta$ (CD122)/ $\gamma$ ; $\gamma$ -subunit (CD132) in common with IL-4R, IL-7R, IL-13R, IL-15R
<b>Cell Type</b>	Tregs
<b>Biology Area</b>	Cell Biology, Immunology, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook</i>. Academic Press, San Diego.</li><li>2. Taniguchi T, <i>et al.</i> 1993. <i>Cell</i> 73:5.</li><li>3. Nistico G. 1993. <i>Prog. Neurobiol.</i> 40:463.</li><li>4. Waldmann T, <i>et al.</i> 1993. <i>Ann. NY Acad. Sci.</i> 685:603.</li></ol>
<b>Regulation</b>	Upregulated by NFAT; downregulated by TCF-8 and CIF (colostrums inhibitory factor)
<b>Gene ID</b>	<a href="#">3558</a>

## Related Protocols

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

[Intracellular Flow Cytometry Staining Protocol](#)

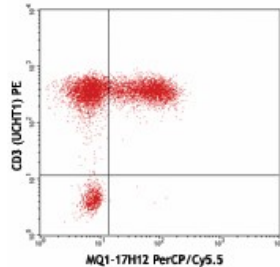
## Other Formats

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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

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PMA + ionomycin-stimulated (6 hours)  
human peripheral blood lymphocytes  
intracellular stained with MQ1-17H12  
PerCP/Cyanine5.5 and CD3 (UCHT1)  
PE

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