

## Alexa Fluor<sup>®</sup> 700 anti-human IL-2 Antibody

|                          |   |
|--------------------------|---|
| <b>Catalog# / Size</b>   | 500319 / 25 µg<br>500320 / 100 µg   |
| <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, κ  |
| <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.  |
| <b>Preparation</b>            | The antibody was purified by affinity chromatography and conjugated with Alexa Fluor <sup>®</sup> 700 under optimal conditions.  |
| <b>Concentration</b>          | 0.5 mg/ml  |
| <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>      | <p>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 ≤ 0.25 µg per 10<sup>6</sup> cells in 100 µl volume. It is highly recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Alexa Fluor<sup>®</sup> 700 has a maximum emission of 719 nm when it is excited at 633nm / 635nm. Prior to using Alexa Fluor<sup>®</sup> 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.</p> <p>Alexa Fluor<sup>®</sup> and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p><a href="#">View full statement regarding label licenses</a></p> |
| <b>Excitation Laser</b>       | Red Laser (633 nm)   |
| <b>Application Notes</b>      | <p><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 µg/mL is recommended.</p> <p><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.</p> <p><b>Note:</b> For testing human IL-2 in serum or plasma, BioLegend's LEGEND MAX™ Kit (Cat. No.</p>     |

431807) is specially developed and recommended.

Clone MQ1-17H12 cross-reacts to Cat<sup>15</sup>

## Application References

(PubMed link indicates BioLegend citation)

1. Andersson J, *et al.* 1994. *Immunology* 83:16. (IHC)
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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)
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13. Yeap SK, *et al.* 2013. *BMC Complement Altern. Med.* 13:145. (Neut)
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15. Maksaereekul S, *et al.* 2009. *Vaccine.* 28:3754 (FC) [PubMed](#)

## Product Citations

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2. Pauthner MG, *et al.* 2019. *Immunity.* 50:241. [PubMed](#)
3. Kramer KJ, *et al.* 2022. *Nat Commun.* 13:3466. [PubMed](#)
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5. Maksaereekul S, *et al.* 2009. *Vaccine.* 28:3754. [PubMed](#)
6. Rodda LB, *et al.* 2020. *Cell.* 184(1):169-183.e17. [PubMed](#)
7. Kassu A, *et al.* 2010. *J Immunol.* 185:3007. [PubMed](#)
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9. OConnor RA, *et al.* 2021. *Oncolmmunology.* 10(1):1940675. [PubMed](#)
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11. Rakshit S, *et al.* 2020. *Cell Rep.* 33:108451. [PubMed](#)
12. Rydzynski Moderbacher C, *et al.* 2020. *Cell.* 183(4):996-1012.e19. [PubMed](#)
13. Qi Y, *et al.* 2012. *PLoS One.* 7:e39072. [PubMed](#)

## RRID

AB\_528928 (BioLegend Cat. No. 500319)  
AB\_528929 (BioLegend Cat. No. 500320)

## 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](#)

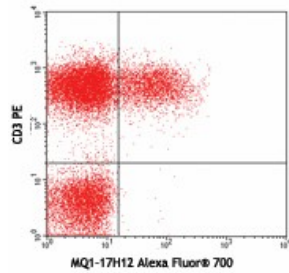
## Other Formats

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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 (5 hours)  
human PBMCs surface stained with CD3  
PE and intracellularly stained with MQ1-  
17H12 Alexa Fluor® 700

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