

Purified anti-human IL-2 (Maxpar[®] Ready) Antibody

Catalog# / Size	500339 / 100 µg
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 EDTA.
Preparation	The antibody was purified by affinity chromatography.
Concentration	1.0 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	ELISA Capture - Quality tested CyTOF[®] - Verified
Recommended Usage	This product is suitable for use with the Maxpar[®] Metal Labeling Kits . For metal labeling using Maxpar [®] Ready antibodies, proceed directly to the step to Partially Reduce the Antibody by adding 100 µl of Maxpar [®] Ready antibody to 100 µl of 4 mM TCEP-R in a 50 kDa filter and continue with the protocol. Always refer to the latest version of Maxpar [®] User Guide when conjugating Maxpar [®] Ready antibodies.
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
Additional Product Notes	Maxpar [®] is a registered trademark of Standard BioTools Inc.
Application References	1. Andersson J, <i>et al.</i> 1994. <i>Immunology</i> 83:16. (IHC) 2. Abrams J, <i>et al.</i> 1992. <i>Immunol. Rev.</i> 127:5. (IP) 3. Abrams JS. 1995. <i>Curr. Prot. Immunol.</i> Unit 6.20. 4. Fernandez V, <i>et al.</i> 1994. <i>Eur. J. Immunol.</i> 24:1808. (IHC)
(PubMed link indicates BioLegend citation)	

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

RRID AB_2562839 (BioLegend Cat. No. 500339)

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, et al. Eds. 2001. <i>The Cytokine FactsBook</i>. Academic Press, San Diego. 2. Taniguchi T, et al. 1993. <i>Cell</i> 73:5. 3. Nistico G. 1993. <i>Prog. Neurobiol.</i> 40:463. 4. Waldmann T, et al. 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

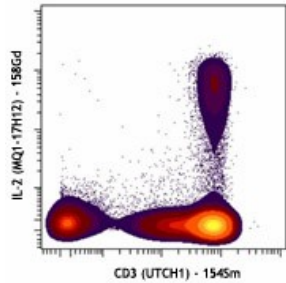
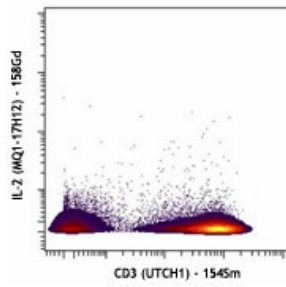
[Active Protocols: Sandwich ELISA - Video](#)

[Sandwich ELISA 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 PBMCs were incubated for 5 hours in media alone (top) or with PMA and Ionomycin (bottom) in the presence of monensin and brefeldin A. Cells were then fixed, permeabilized, and stained with 154Sm-anti-CD3 (UCHT1) and 158Gd-anti-IL-2 (MQ1-17H12). Data provided by DVS Sciences.

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