

APC anti-human IL-2 Antibody

Catalog# / Size	500309 / 25 tests 500311 / 50 µg 500310 / 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	test sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA). µg size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography, and conjugated with APC under optimal conditions.
Concentration	µg sizes: 0.2 mg/mL test sizes: 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.
Excitation Laser	Red Laser (633 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)

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Product Citations

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RRID

AB_315096 (BioLegend Cat. No. 500309)
AB_315098 (BioLegend Cat. No. 500311)
AB_315097 (BioLegend Cat. No. 500310)

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

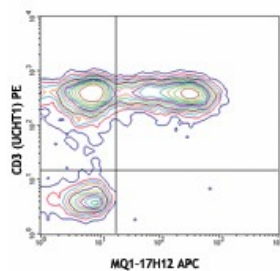
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[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



PMA + ionomycin-stimulated (6 hours)
human peripheral blood lymphocytes
intracellular stained with MQ1-17H12
APC and CD3 (UCHT1) PE

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