

Technical Data Sheet

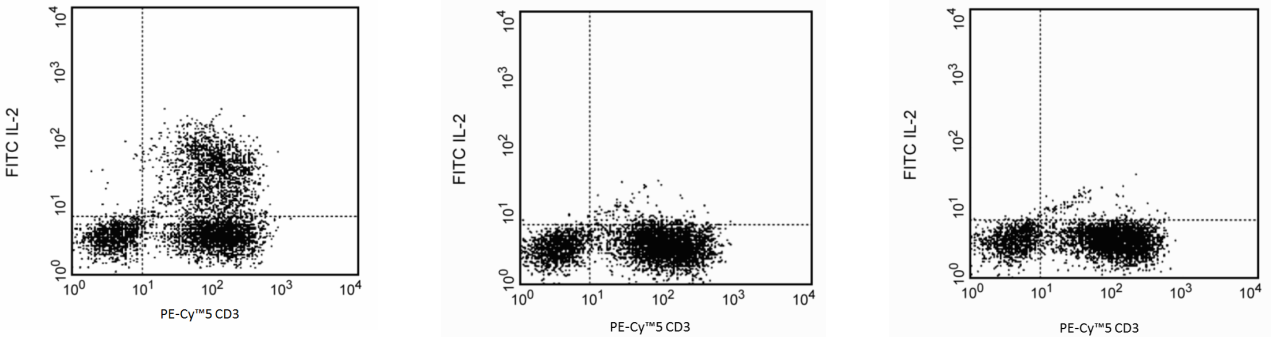
Purified Rat Anti-Human IL-2

Product Information

Material Number:	554563
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	MQ1-17H12
Immunogen:	Human IL-2 Recombinant Protein
Isotype:	Rat IgG2a, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MQ1-17H12 antibody reacts with human interleukin-2 (IL-2). The immunogen used to generate the MQ1-17H12 hybridoma was recombinant human IL-2. Unconjugated or purified forms of this antibody have been reported to be neutralizing for human IL-2 bioactivity.



Expression of IL-2 by stimulated CD3⁺ human PBMC. Human PBMCs were stimulated for 6 hours with PMA (50 ng/ml final concentration; Sigma, Cat. #P-8139) and calcium ionophore A23187 (500-100 ng/ml final concentration; Sigma, Cat. #C-9275) in the presence of BD GolgiStop™ (2 μM final concentration; Cat. No. 554724). The PBMCs were stained with PE-Cy™5-anti-CD3 (PE-Cy™5-UCHT1, Cat. No. 555334), fixed, permeabilized, and then stained with 0.25 μg of FITC-rat anti-human IL-2 antibody (FITC-MQ1-17H12, Cat. No. 554565) using Pharmingen's staining protocol (left panel). To demonstrate specificity of staining, the binding of FITC-MQ1-17H12 was blocked by the preincubation of the fluorochrome - conjugated antibody with recombinant human IL-2 (10 ng/ml final concentration; Cat. No. 554603; middle panel), and by preincubation of the fixed/permeabilized cells with unlabeled MQ1-17H12 antibody (5.0 μg, Cat. No. 554563; right panel) prior to staining with the FITC-MQ1-17H12 antibody. The quadrant markers for the bivariate dot plots were set based on the autofluorescence control, and verified with the recombinant cytokine blocking (middle panel) and unlabeled antibody blocking (right panel) specificity controls.

Preparation and Storage

Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

ELISA Capture	Routinely Tested
Intracellular block/flow cytometry	Tested During Development
Immunocytochemistry (cytospins)	Tested During Development

Recommended Assay Procedure:

Blocking Control for Intracellular Staining: The purified MQ1-17H12 antibody (Cat. No. 554563) can be used as a blocking control to demonstrate specificity of IL-2 staining of directly conjugated MQ1-17H12 antibody. To perform this control, the fixed/permeabilized cells (~ 1 million) can be incubated with 1 -10 μg of unlabeled MQ1-17H12 antibody (Cat. No. 554563) for 20 minutes at 4°C, prior to staining with conjugated antibody (e.g., 0.1 -0.5 μg mAb/1X10⁶ cells). The intracellular cytokine staining technique and use of blocking controls are described in detail by C. Prussin and D. Metcalfe. For specific methodology, please visit the protocol section on our web site, <http://www.bdbiosciences.com/resources/index.jsp>

Neutralization/Blocking: THE NA/LE™ format of the MQ1-17H12 antibody (Cat. 554562) is useful for neutralization of human IL-2 bioactivity. A suitable NA/LE™ isotype control to match the NA/LE™ MQ1-17H12 antibody is the R35-95 antibody (Cat. No. 554687).

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ELISA Capture: The purified MQ1-17H12 antibody is useful as a capture antibody for a sandwich ELISA for specifically measuring human IL-2 protein levels. The biotinylated B33-2 antibody (Cat. No. 555040) can be paired with the purified MQ1-17H12 antibody (Cat. No. 554563) as the capture antibody, with recombinant human IL-2 (Cat. No. 554603) as the standard. For specific methodology, please visit the protocols section on our website, <http://www.bdbiosciences.com/resources/index.jsp>

Suggested Companion Products

Catalog Number	Name	Size	Clone
554724	Protein Transport Inhibitor (Containing Monensin)	0.7 ml	(none)
555334	PE-Cy TM 5 Mouse Anti-Human CD3	100 tests	UCHT1
554565	FITC Rat Anti-Human IL-2	0.1 mg	MQ1-17H12
554603	Recombinant Human IL-2	10 µg	(none)
554715	BD Cytotfix/Cytoperm Plus Kit (with BD GolgiStop)	250 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. This product is manufactured and sold under license from Pestka Biomedical Laboratories, Inc. (d/b/a PBL InterferonSource) and may be used solely as indicated. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics is strictly prohibited. This product is covered by U.S. Patent No. 5,597,901 and Bulgarian Patent No. BG1895.
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6. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

Andersson J, Abrams J, Bjork L, et al. Concomitant in vivo production of 19 different cytokines in human tonsils. *Immunology*. 1994; 83(1):16-24. (Biology)
 Fernandez V, Andersson J, Andersson U, Troye-Blomberg M. Cytokine synthesis analyzed at the single-cell level before and after revaccination with tetanus toxoid. *Eur J Immunol*. 1994; 24(8):1808-1815. (Biology)
 Prussin C, Metcalfe DD. Detection of intracytoplasmic cytokine using flow cytometry and directly conjugated anti-cytokine antibodies. *J Immunol Methods*. 1995; 188(1):117-128. (Methodology: IC/FCM Block)

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