

Technical Data Sheet

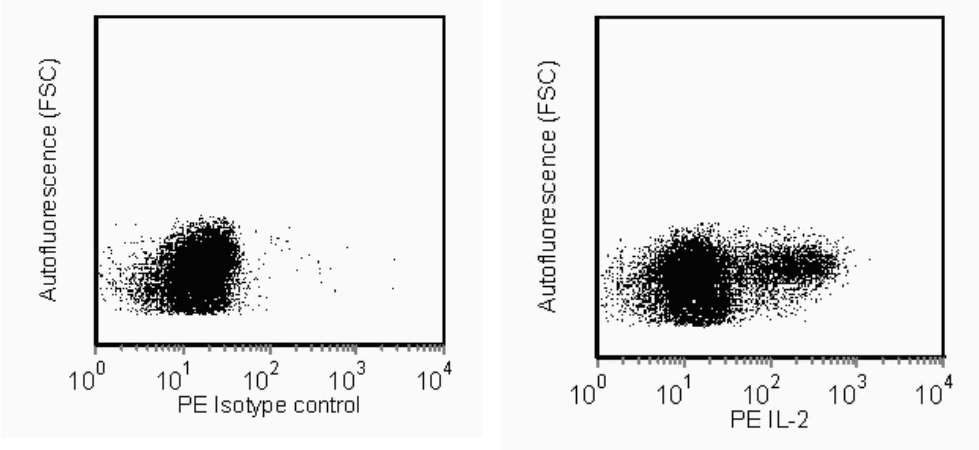
PE Rat Anti-Human IL-2

Product Information

Material Number:	560709
Size:	50 tests
Vol. per Test:	20 µl
Clone:	MQ1-17H12
Immunogen:	Human IL-2 Recombinant Protein
Isotype:	Rat IgG2a, κ
Reactivity:	Human
	QC Testing: Rhesus or Baboon or Cynomolgus
Storage Buffer:	Aqueous buffered solution containing BSA and ≤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.



**Flow cytometric analysis for IL-2 in stimulated Rhesus macaque peripheral blood mononuclear cells (PBMC).** Rhesus macaque PBMC were stimulated for 6 hours with 50 ng/mL PMA (Sigma-Aldrich Cat. No. P-8139) and 500 ng/mL calcium ionophore A23187 (Sigma-Aldrich Cat. No. C-9275) in the presence of BD GolgiStop™ (Cat. No. 554724). Cells were then fixed and permeabilized using BD Cytofix/Cytoperm™ (Cat. No. 554714) followed by staining with either a PE Rat IgG2a, κ isotype control (left panel) or with the PE Rat Anti-Human IL-2 antibody (right panel). Dot plots were derived from gated events based on light scattering characteristics for lymphocytes. Flow cytometry was performed on a BD™ LSR II flow cytometry system.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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Recommended Assay Procedure:

**Flow cytometry:** The MQ1-17H12 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate IL-2 producing cells within mixed cell populations. A useful control investigators may consider using for demonstrating specificity of staining, is to pre-block with one of the following reagents: (1) recombinant human IL-2 (Cat. No. 554603) or (2) unlabeled MQ1-17H12 antibody (Cat. No. 554563), prior to staining.

Suggested Companion Products

Catalog Number	Name	Size	Clone
559317	PE Rat IgG2a κ Isotype Control	100 tests	R35-95
554715	BD Cytofix/Cytoperm Plus Kit (with BD GolgiStop)	250 tests	(none)
554724	Protein Transport Inhibitor (Containing Monensin)	0.7 ml	(none)
554723	Perm/Wash Buffer	100 ml	(none)
554563	Purified Rat Anti-Human IL-2	0.1 mg	MQ1-17H12
554603	Recombinant Human IL-2	10 µg	(none)
559334	PE Rat Anti-Human IL-2	100 tests	MQ1-17H12

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## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
6. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.

## References

Abrams J. Immunoenzymetric assay of mouse and human cytokines using NIP-labeled anti-cytokine antibodies. In: Coligan J, Kruisbeek A, Margulies D, Shevach E, Strober W, ed. *Current Protocols in Immunology*. New York: John Wiley and Sons; 1995:6.20-6.21. (Biology)

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)

Gillis S, Ferm MM, Ou W, Smith KA. T cell growth factor: parameters of production and a quantitative microassay for activity. *J Immunol*. 197; 120(6):2027-2032. (Biology)

Meager A. Characterization of interferons and immunoassays. In: Clemens MJ, Morris AG, Gearing AJH, ed. *Lymphocytes and Interferons. A Practical Approach*. Oxford: IRL Press Ltd; 1987:105-127. (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: Flow cytometry)

Smith, KA. Interleukin-2: inception, impact, and implications. *Science*. 1988; 240(4856):1169-1176. (Biology)

Sopper S, Stahl-Hennig C, Demuth M, Johnston IC, Dorries R, ter Meulen V. Lymphocyte subsets and expression of differentiation markers in blood and lymphoid organs of rhesus monkeys. *Cytometry*. 1997; 29(4):351-362. (Biology)

Stern AS, Pan YC, Urdal DL, Mochizuki DY, DeChiara S, Blacher R, Wideman J, Gillis S. Purification to homogeneity and partial characterization of interleukin 2 from a human T-cell leukemia. *Proc Natl Acad Sci U S A*. 1984; 81(3):871-875. (Biology)

Taniguchi T, Matsui H, Fujita T, Takaoka C, Kashima N, Yoshimoto R, Hamuro J. Structure and expression of a cloned cDNA for human interleukin-2. *Nature*. 1983; 302(5906):305-310. (Biology)

Verdier F, Aujoulat M, Condevaux F, Descotes J. Determination of lymphocyte subsets and cytokine levels in cynomolgus monkeys. *Toxicology*. 1995; 105(1):81-90. (Biology)