

## Biotin Anti-Human IL-2 Antibody

<b>Catalog Number:</b>	111703, 111704
<b>Size:</b>	25 ug, 100 ug
<b>Target Name:</b>	IL-2, Interleukin-2, T cell growth factor, Macrophage-activating factor for cytotoxicity I, Killer cell helper factor
<b>Regulatory Status:</b>	RUO

### PRODUCT DETAILS

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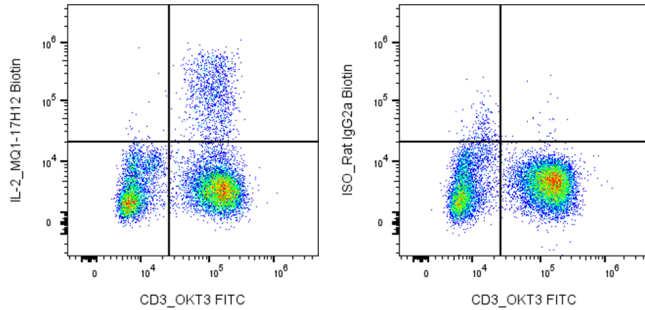
<b>Clone:</b>	MQ1-17H12
<b>Application:</b>	Flow Cytometry
<b>Reactivity:</b>	Human
<b>Format:</b>	Biotin
<b>Isotype:</b>	Rat IgG2a
<b>Antibody Type:</b>	Monoclonal
<b>Formulation:</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA
<b>Protein Concentration:</b>	0.2 mg/mL
<b>Storage&amp;Handling:</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
<b>Recommended Usage:</b>	For flow cytometric staining, it is recommended to use less than 0.1 ug of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application
<b>Isotype Control:</b>	300206

### BACKGROUND INFORMATION

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Interleukin-2 (IL-2) is a potent immunomodulatory cytokine primarily produced by activated CD4<sup>+</sup> T helper cells. It plays a central role in immune activation and tolerance by promoting the proliferation and differentiation of T cells, NK cells, and B cells. IL-2 signals through a heterotrimeric IL-2 receptor complex composed of  $\alpha$  (CD25),  $\beta$ , and common  $\gamma$  chains, activating downstream JAK/STAT, PI3K, and MAPK pathways. IL-2 is essential for regulatory T cell development and maintenance, thereby preventing autoimmunity. Human IL-2 shares significant sequence homology with mouse IL-2 and exhibits cross-species activity, supporting its broad application in immunological research and cell culture-based assays

## PRODUCT DATA



Human peripheral blood lymphocytes were stimulated with PMA/ionomycin, followed by surface staining with FITC anti-human CD3 clone OKT3. Cells were then fixed and permeabilized for intracellular staining with biotinylated anti-human IL-2 clone MQ1-17H12 (left) or an isotype control (right).