

## Active Recombinant Human IL2 Protein (Ala21-Thr153), Biotinylated

Cat. No. IL2-02H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human IL2 Protein (Ala21-Thr153) with an N-terminal Met was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	Ala21-Thr153
<b>Description</b>	<p>This gene is a member of the interleukin 2 (IL2) cytokine subfamily which includes IL4, IL7, IL9, IL15, IL21, erythropoietin, and thrombopoietin. The protein encoded by this gene is a secreted cytokine produced by activated CD4+ and CD8+ T lymphocytes, that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine (IL2R) is a heterotrimeric protein complex whose gamma chain is also shared by IL4 and IL7. The expression of this gene in mature thymocytes is monoallelic, which represents an unusual regulatory mode for controlling the precise expression of a single gene. The targeted disruption of a similar gene in mice leads to ulcerative colitis-like disease, which suggests an essential role of this gene in the immune response to antigenic stimuli.</p>
<b>Form</b>	Biotinylated protein via amines
<b>Bio-activity</b>	Measured by its binding ability in a functional ELISA. When Recombinant Human IL-2 R alpha Fc Chimera is immobilized at 1

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	<p>µg/mL (100 µL/well), Biotinylated Recombinant Human IL-2 binds with an ED 50 of 4-24 ng/mL. Measured in a cell proliferation assay using CTLL-2 mouse cytotoxic T cells. Gearing, A.J.H. and C.B. Bird (1987) in Lymphokines and Interferons, A Practical Approach. Clemens, M.J. et al. (eds): IRL Press. 295. The ED 50 for this effect is 0.05-0.25 ng/mL.</p>
<b>Molecular Mass</b>	<p>Predicted Molecular Mass: 15 kDa (unlabeled) SDS-PAGE: 13 kDa, reducing conditions</p>
<b>N-terminal Sequence Analysis</b>	Met
<b>Endotoxin</b>	<0.10 EU/µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Applications</b>	Bioactivity
<b>Storage</b>	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 degreesC under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.</p>
<b>Storage Buffer</b>	Lyophilized from a 0.2 µm filtered solution in HCl with BSA as a carrier protein.
<b>Reconstitution</b>	Reconstitute at 250 µg/mL in 4 mM HCl.
<b>Shipping</b>	The product is shipped at ambient temperature.
<b>Conjugation</b>	Biotin

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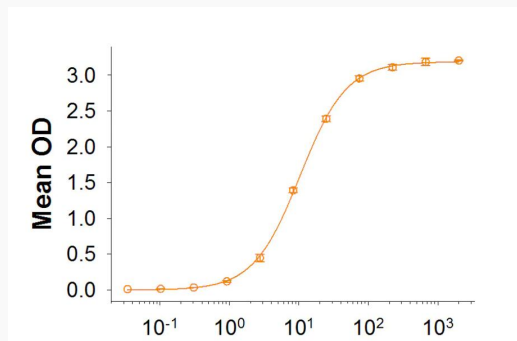
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## GENE INFORMATION

<b>Gene Name</b>	IL2 interleukin 2 [ Homo sapiens (human) ]
<b>Official Symbol</b>	IL2
<b>Synonyms</b>	IL2; interleukin 2; IL-2; TCGF; lymphokine; interleukin-2; T cell growth factor; aldesleukin; involved in regulation of T-cell clonal expansion
<b>Gene ID</b>	3558
<b>mRNA Refseq</b>	NM_000586
<b>Protein Refseq</b>	NP_000577
<b>MIM</b>	147680
<b>UniProt ID</b>	P60568

### Binding Activity

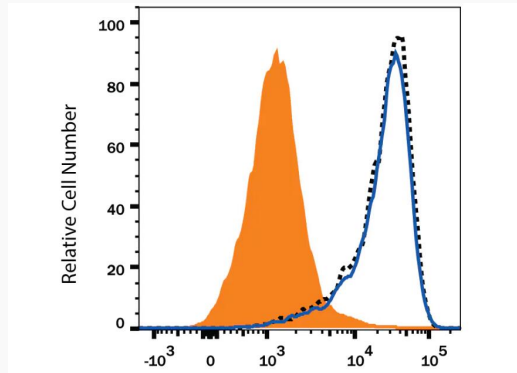


When Recombinant Human IL-2 Ra Fc Chimera is coated at 1 µg/mL, Recombinant Biotinylated Human IL-2 binds with an ED50 of 4-24 ng/mL.

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**FC**

In a functional flow cytometry test, Recombinant Human IL-2 Biotinylated protein (500 ng/mL) binds to HEK293 human embryonic kidney cell line transfected with recombinant human CD25/IL-2R alpha (black dotted line). Binding is completely blocked (orange histogram) by 0.5 µg/mL of Mouse Anti-Human CD25/IL-2R alpha Monoclonal Antibody. Mouse IgG2A Isotype Control at 0.5 µg/mL was used as a control (blue line). Ligand binding was detected by staining cells with APC-conjugated Streptavidin.

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