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

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

SPECIFICATION

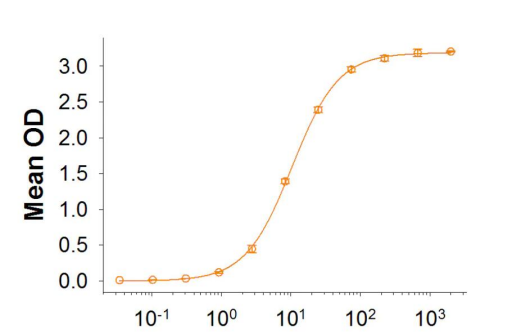
Product Overview	Recombinant Human IL2 Protein (Ala21-Thr153) with an N-terminal Met was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Ala21-Thr153
Description	This gene is a member of the interleukin 2 (IL2) cytokine subfamily which includes IL4, IL7, IL9, IL15, IL21, erythropoietin, 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.
Form	Biotinylated protein via amines
Bio-activity	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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	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.
Molecular Mass	Predicted Molecular Mass: 15 kDa (unlabeled) SDS-PAGE: 13 kDa, reducing conditions
N-terminal Sequence Analysis	Met
Endotoxin	<0.10 EU/μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	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.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution in HCl with BSA as a carrier protein.
Reconstitution	Reconstitute at 250 μg/mL in 4 mM HCl.
Shipping	The product is shipped at ambient temperature.
Conjugation	Biotin

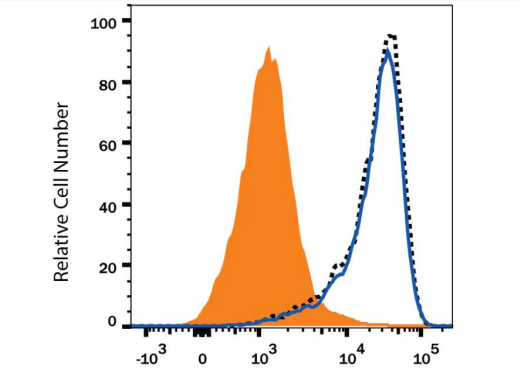
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GENE INFORMATION

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