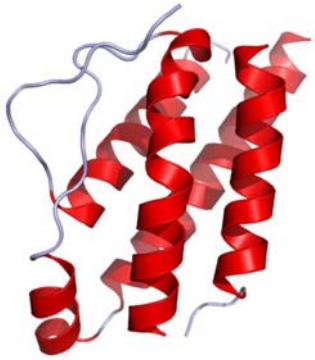
SPECIFICATION SHEET
Rev 082676A

Interleukin-2 Variant

Human, Recombinant (rHuIL2 Variant)
Expressed in *E. coli*
Cat. No. CRP0877
Lot. No. (See product label)



Human Interleukin 2 crystal structure.

PRODUCT INFORMATION

Description: Interleukin 2 is a protein that has a variety of immunologic functions, the most notable being the ability of IL-2 to promote the proliferation and maturation of activated T cells. A comparison of the amino acid sequences of human and murine IL-2 shows an approximately 60% sequence similarity, and human sequence IL-2 has been found to be active on murine cell lines.

Amino-Acid Sequence: 134 amino acids with a substitution of Ser for Cys at position 125, non-glycosylated

M. W. : 15,000Da

Recombinant: Expressed in *E. coli*

Purity: >97% by SDS-PAGE and HPLC analyses.

Formulation: Lyophilized from a 0.2μm filtered concentrated (1mg/ml) solution in PBS, pH 7.5.

Biological Activity: Fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of murine CTLL-2 cells is less than 0.1 ng/ml.

Endotoxin: Less than 1EU/μg of rHuIL-2 Variant as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable at 2-8°C, but should be kept at –20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at –20°C to –70°C. Avoid repeated freeze/thaw cycles.

FOR RESEARCH USE ONLY

GENE INFORMATION

Gene Name: IL2

Synonyms: IL-2, TCGF, lymphokine, Aldesleukin, lymphokine, T cell growth factor; aldesleukin; interleukin-2; involved in regulation of T-cell clonal expansion; Interleukin-2 precursor; T cell growth factor; interleukin 2; involved in regulation of T-cell clonal expansion

mRNA Refseq: NM_000586.3

Protein Refseq: NP_000577.2

MIM: 147680

GeneID: 3558

Uniprot ID: P60568

Chromosome Location: 4q26-q27

Pathway: Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, T cell receptor signaling pathway, Type I diabetes mellitus.

Function: interleukin-2 receptor, kinase activator activity.

REFERENCES

1. Gordon J, Maclean LD. A Lymphocyte-stimulating Factor produced in vitro. 1965; Nature 208: 795–796.

2. Robb R, Smith KA. Heterogeneity of human T-cell growth factor(s) due to variable glycosylation. Mol. Immunol. 1981; 18: 1087–1094.

3.Smith KA, Favata MF, Oroszlan S. Production and characterization of monoclonal antibodies to human interleukin 2: strategy and tactics. 1983; J. Immunol. 131: 1808.

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