

## IL-2 Superkine Protein, Human, Recombinant (L100F, R101D, L105V, I106V, I112F)

### General Information

Synonyms:	TCGF;Aldesleukin;T-Cell Growth Factor;IL-2;Interleukin-2;IL2
Protein Construction:	Ala21-Thr153 (L100F, R101D, L105V, I106V, I112F)
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P60568
AA Sequence:	Ala21-Thr153

### QC Testing

Biological Activity:	1. Loaded Human IL-2RA-Fc on Protein A Biosensor, can bind Human IL-2 Superkine with an affinity constant of 10.4 nM as determined in BLI assay. (Regularly tested) 2. Measured in a cell proliferation assay using CTLL-2 mouse cytotoxic T cells. The ED50 for this effect is 151.39 pg/ml. (Regularly tested)
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 4 mM HCl.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in 4mM HCl. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Interleukin-2(IL-2) is an interleukin, a type of cytokine signaling molecule in the immune system, belongs to the IL-2 family. It is a powerful immunoregulatory lymphokine produced by T-cells in response to antigenic or mitogenic stimulation. IL-2/IL-2R signaling is required for T-cell proliferation and other fundamental functions that are essential for the immune response. IL-2 stimulates growth and differentiation of B-cells, NK cells,

lymphokine-activated killer cells, monocytes, macrophages and oligodendrocytes. New research has shown that IL-2 mutant reduced toxicity while being more potent at stimulating anti-tumor effector immune cells.

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