Recombinant Rhesus macaque IL-2 Protein

Catalog No.: RP00817

Sequence Information

Species
Rhesus macaque

Gene ID
708017

Swiss Prot
P68291

Tags
No tag

Synonyms
IL2,Interleukin-2, IL-2, T-cell growth factor, TCGF

Product Information

Source
HEK293 cells

Purification
≥ 95% as determined by reducing SDS-PAGE.

Calculated MW
29.17 kDa

Observed MW
15-25 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from 0.22μm filtered solution in PBS (pH 7.4).

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

IL-2,Cytokine produced by activated CD4-positive helper T-cells and to a lesser extend activated CD8-positive T-cells and natural killer (NK) cells that plays pivotal roles in the immune response and tolerance. Binds to a receptor complex composed of either the high-affinity trimeric IL-2R (IL2RA/CD25, IL2RB/CD122 and IL2RG/CD132) or the low-affinity dimeric IL-2R (IL2RB and IL2RG). Interaction with the receptor leads to oligomerization and conformation changes in the IL-2R subunits resulting in downstream signaling starting with phosphorylation of JAK1 and JAK3. In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5. This process leads to activation of several pathways including STAT, phosphoinositide-3-kinase /PI3K and mitogen-activated protein kinase/MAPK pathways. Functions as a T-cell growth factor and can increase NK-cell cytolytic activity as well. Promotes strong proliferation of activated B-cells and subsequently immunoglobulin production. Plays a pivotal role in regulating the adaptive immune system by controlling the survival and proliferation of regulatory T-cells, which are required for the maintenance of immune tolerance. Moreover, participates in the differentiation and homeostasis of effector T-cell subsets, including Th1, Th2, Th17 as well as memory CD8-positive T-cells.

Basic Information

Description
Recombinant Rhesus macaque IL-2 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala21-Thr154) of Rhesus macaque IL-2(Accession #NP_001040595.1) fused with no-tag.

Activity

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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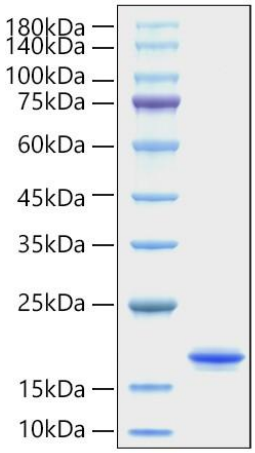
Validation Data



Recombinant Rhesus macaque IL-2 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.

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