

Recombinant Rat interleukin 2 Protein, His&Flag tagged

Cat. No. IL2-111R Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant rat IL-2 protein (P17108) (Ala 21-Gln 155) with both His, Flag tag at the C-terminus was expressed in HEK293.

Species Rat

Source HEK293

ProteinLength 21-155aa

Description

Cytokine produced by activated CD4-positive helper T-cells and to a lesser extent 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.

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Moreover, participates in the differentiation and homeostasis of effector T-cell subsets, including Th1, Th2, Th17 as well as memory CD8-positive T-cells.

Tag C-His&Flag

Molecular Mass 18.2 kDa

Endotoxin Less than 1.0 EU/μg by the LAL method.

Purity >95% as determined by SDS-PAGE.

Storage Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

Storage Buffer Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.

Reconstitution Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name [IL2 interleukin 2 \[Rattus norvegicus \]](#)

Official Symbol [IL2](#)

Synonyms IL2; interleukin 2; interleukin-2; IL-2; TCGF; T-cell growth factor;

Gene ID [116562](#)

mRNA Refseq [NM_053836](#)

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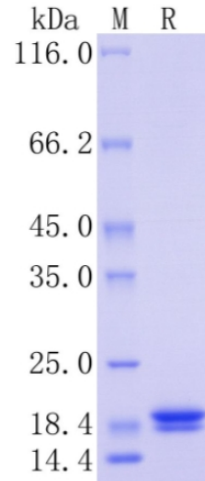
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Protein Refseq NP_446288

UniProt ID P17108

Protein on SDS-PAGE under reducing (R) condition.



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