

Recombinant Mouse interleukin 2 Protein, Tag Free

Cat. No. IL2-194M Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant mouse IL-2 protein (P04351) (Ala 21-Gln 169) without tag was expressed in HEK293.

Species Mouse

Source HEK293

Protein Length 21-169aa

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.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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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

Non

Molecular Mass

17.6 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 [*Mus musculus* (house mouse)]

Official Symbol

Il2

Synonyms

IL2; interleukin 2; interleukin-2; TCGF; T-cell growth factor; Il-2;

Gene ID

16183

mRNA Refseq

NM_008366

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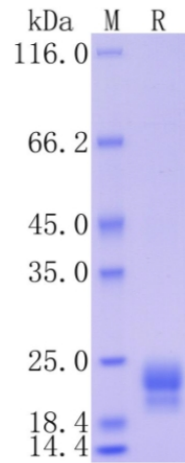
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Protein Refseq NP_032392

UniProt ID P04351

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



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