

Datasheet for ABIN7536362

IL-2 Protein (His tag)

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Overview

Quantity:	100 µg
Target:	IL-2 (IL2)
Origin:	Rat
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This IL-2 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Rat IL-2 Protein
Sequence:	PTSSPAKETQ QHLEQLLLDL QVLLRGIDNY KNLKLPMMMLT FKFYLPKQAT ELKHLQCLEN ELGALQRVLD LTQSKSFHLE DAGNFISNIR VTVVKLKGSE NKFECCQFDDE PATVVEFLRR WIAICQSIIS TMTQ
Specificity:	Pro22-Gln155
Purity:	> 97 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	< 0.1EU/µg
Biological Activity Comment:	Measured in a cell proliferation assay using HT-2 mouse T cells. The ED50 for this effect is 0.65-2.6 ng/mL, corresponding to a specific activity of $3.85 \times 10^5 \sim 1.54 \times 10^6$ units/mg.

Target Details

Target:	IL-2 (IL2)
Alternative Name:	IL-2 (IL2 Products)
Background:	Description: Interleukin-2, also known as a T-cell growth factor, TCGF, Aldesleukin, and IL2, is a secreted protein that belongs to the IL-2 family. Interleukin-2 / IL-2 was the first interleukin molecule to be discovered. Interleukin-2 / IL-2 Molecule was first purified to homogeneity by immunoaffinity chromatography by Kendall Smith and his team at Dartmouth Medical School. Interleukin-2 / IL-2 was also the first cytokine shown to mediate its effects via a specific IL-2 receptor, and it was also the first interleukin to be cloned and expressed from a complementary DNA (cDNA) library. Interleukin-2 / IL-2 was designated number 2 because Smith's data at the time indicated that IL-1, produced by macrophages, facilitates IL-2 production by T lymphocytes (T cells). Interleukin-2 / IL-2 is produced by T-cells in response to antigenic or mitogenic stimulation, this protein is required for T-cell proliferation and other activities crucial to regulation of the immune response. Interleukin-2 / IL-2 is normally produced by the body during an immune response. When environmental substances (molecules or microbes) gain access to the body, these substances (termed antigens) are recognized as foreign by antigen receptors that are expressed on the surface of lymphocytes. Antigen binding to the T cell receptor (TCR) stimulates the secretion of Interleukin-2 / IL-2 and the expression of IL-2 receptors IL-2R. The IL-2 / IL-2R interaction then stimulates the growth, differentiation, and survival of antigen-selected cytotoxic T cells via the activation of the expression of specific genes. Interleukin-2 / IL-2 can stimulate B-cells, monocytes, lymphokine-activated killer cells, natural killer cells, and glioma cells. Name: IL-2,IL2
Gene ID:	116562
UniProt:	P17108
Pathways:	JAK-STAT Signaling , Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process , Production of Molecular Mediator of Immune Response , Activated T Cell Proliferation

Application Details

Restrictions:	For Research Use only
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Handling

Format:	Lyophilized
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Handling

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 stabilizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 % Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.
Concentration:	0.86 mg/mL
Buffer:	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.
Storage:	-20 °C, -80 °C
Storage Comment:	Store the lyophilized protein at -20°C to -80°C for 12 months. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.