

Datasheet for ABIN6253248

IL-2 Protein (AA 21-153, C145S) (His tag)



[Go to Product page](#)

Overview

Quantity:	10 µg
Target:	IL-2 (IL2)
Protein Characteristics:	AA 21-153, C145S
Origin:	Human, Mouse
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:	IL-2 (C145S Mutant) (human) (rec.) (His)
Specificity:	Human IL-2 (aa 21-153) (mutation C145S) is fused at the C-terminus to a His-tag.
Characteristics:	Protein. Human IL-2 (aa 21-153) (mutation C145S) is fused at the C-terminus to a His-tag. Source: HEK 293 cells. Endotoxin content: <0.01 EU/µg protein (LAL test, Lonza). Lyophilized from 0.2µm-filtered solution in PBS. Purity: >95 % (SDS-PAGE). Interleukin-2 (IL-2) is a 133 amino acid glycoprotein with one intramolecular disulfide bond and variable glycosylation. It is secreted by activated T cells and induces proliferation and maturation of activated T cells, natural killer cells, and lymphokine activated killer cells. IL-2 also stimulates proliferation of antibody-producing B cells, activates neutrophils, and induces mononuclear cells to secrete IFN-gamma and TNF-alpha and -beta. Moreover, studies have shown that IL-2 is required for activation-induced apoptosis, an important homeostatic mechanism in the immune system, which is involved in the maintenance of peripheral tolerance to self-antigens. The modified IL-2

Product Details

protein containing a substitution at position C145S retains full biological activity, suggesting that the cysteine at this position is not involved in a disulfide bond and that a free sulfhydryl group at that position is not necessary for receptor binding. Additionally, the C145S mutation insertion avoids non-specific disulfides and improves the physical properties of the protein.

Purity: >95 % (SDS-PAGE)

Endotoxin Level: <0.01EU/μg protein (LAL test, Lonza).

Biological Activity Comment: Measured by its ability to stimulate the proliferation of mouse CTLL-2 cells. The ED50 for this effect is typically 0.1ng/mL, corresponding to a specific activity of 1x 10⁷ units/mg.

Target Details

Target: IL-2 (IL2)

Alternative Name: IL-2 ([IL2 Products](#))

Background: Alternate Names/Synonyms: Interleukin-2, Aldesleukin

Product Description: Interleukin-2 (IL-2) is a 133 amino acid glycoprotein with one intramolecular disulfide bond and variable glycosylation. It is secreted by activated T cells and induces proliferation and maturation of activated T cells, natural killer cells, and lymphokine activated killer cells. IL-2 also stimulates proliferation of antibody-producing B cells, activates neutrophils, and induces mononuclear cells to secrete IFN-gamma and TNF-alpha and -beta. Moreover, studies have shown that IL-2 is required for activation-induced apoptosis, an important homeostatic mechanism in the immune system, which is involved in the maintenance of peripheral tolerance to self-antigens. The modified IL-2 protein containing a substitution at position C145S retains full biological activity, suggesting that the cysteine at this position is not involved in a disulfide bond and that a free sulfhydryl group at that position is not necessary for receptor binding. Additionally, the C145S mutation insertion avoids non-specific disulfides and improves the physical properties of the protein.

Molecular Weight: ~19kDa (SDS-PAGE)

NCBI Accession: [NP_000577](#)

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

Handling

Format:	Lyophilized
Concentration:	Lot specific
Buffer:	Lyophilized from 0.2µm-filtered solution in PBS.
Handling Advice:	Avoid freeze/thaw cycles. PBS containing at least 0.1 % BSA should be used for further dilutions.
Storage:	4 °C,-20 °C
Storage Comment:	Short Term Storage: +4°C Long Term Storage: -20°C Use & Stability: Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.