

Recombinant Human Interleukin 6 (interferon, beta 2), HQ-tagged

Cat. No. IL6-5309H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant human IL-6 is a 20.9 kDa protein containing 184 amino acid residues. Human IL-6 is active on murine cells but murine IL-6 is inactive on human cells.

Species

Human

Source

Hordeum Vulgare

Description

IL-6 is a multifunctional cytokine that has an important role in host defense by regulating immune and inflammatory responses. It is expressed by a variety of normal and transformed cells including T cells, B cells, monocytes/macrophages, fibroblasts and various tumor cells. IL-6 has diverse biological functions, it stimulates B-cell differentiation and antibody production, synergizes with IL-3 in megakaryocyte development and platelet production, induces expression of hepatic acute-phase proteins, and regulates bone metabolism.

Form

Sterile filtered through a 0.2 µm filter. Lyophilized from 50 mM MES pH 6.5, 500 mM NaCl.

Molecular Weight

23.9 kDa

Purity

Greater than 95% by SDS-PAGE gel analysis. Purified product carries no pyrogenic or pro-inflammatory contaminants, as assayed with monocyte activation test using Human 10-plex Cytokine Assay measuring IL-6, TNF-α and IL-1β induction.

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Endotoxin Level	Endotoxin level is less than 0.005ng per ug of product (0.05EU/ug) as measured by turbidimetric kinetic assay.
Biological Activity	Bioactivity is assayed by measuring the dose dependent effect of human IL-6 on proliferation of TF-1 cells. The EDSO for this batch of recombinant human IL-6 is 0.20ng/ml, corresponding to 5.0 x 10 ⁶ U/mg specific activity. Optimal concentration should be determined for specific applications and cell lines.
Reconstitution	Centrifuge vial prior to opening. First add sterile distilled water to the vial to fully solubilize the protein to a concentration not less than 100 ug/ml. After complete solubilization of the protein, it can be further diluted to other aqueous solutions.
Storage	Store lyophilized protein at -20°C to -80°C. Reconstituted protein is stable for 1 week at 2-4°C. For long term storage, aliquot and store at -20°C to -80°C with a carrier protein (0.1% HSA or BSA) as a stabilizer. Please note that the addition of any carrier protein into this product may produce unwanted endotoxin. This depends upon the particular application employed. Avoid repeated freeze-thaw cycles.
Official Symbol	IL6

GENE INFORMATION

Gene Name	IL6 interleukin 6 (interferon, beta 2) [Homo sapiens]
Synonyms	IL6; interleukin 6(interferon, beta 2); HGF; HSF; BSF2; IL-6; IFNB2; interleukin-6; CDF; BSF-2; IFN-beta-2; interferon beta-2; interleukin BSF-2; OTTHUMP00000158544; OTTHUMP00000198486; OTTHUMP00000198489; OTTHUMP00000198490; hybridoma growth factor; CTL differentiation factor; B cell stimulatory factor-2; B-cell stimulatory factor 2; B-cell differentiation factor
Gene ID	3569

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mRNA Refseq	NM_000600
Protein Refseq	NP_000591
MIM	147620
UniProt ID	P05231
Chromosome Location	7p21-p15
Pathway	ATF-2 transcriptionfactor network; Adipogenesis; African trypanosomiasis; Amoebiasis; AndrogenReceptor Signaling Pathway; Cytokine Signaling in Immune system; Cytokinesand Inflammatory Response; Cytosolic DNA-sensing pathway; Graft-versus-hostdisease; HTLV-I infection; Hematopoietic cell lineage; Herpes simplexinfection; IL-6 Signaling Pathway; Immune System; Influenza A
Function	cytokine activity;growth factor activity; interleukin-6 receptor binding; contributes_tointerleukin-6 receptor binding

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PDB rendering
based on 1ALU.



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