

GMP Recombinant Human IL6 protein

Cat. No. IL6-4321HG Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human IL6 protein was expressed in Escherichia coli. This product is produced under cGMP guidelines.

Species Human

Source E.coli

ProteinLength 183

Description Interleukin-6 (IL-6) is an interleukin that in humans is encoded by the IL-6 gene and acts as both a pro-inflammatory and anti-inflammatory cytokine. It is secreted by T cells and macrophages to stimulate immune response. Furthermore, It plays an essential role in the final differentiation of B-cells into Ig-secreting cells involved in lymphocyte and monocyte differentiation. It also induces myeloma and plasmacytoma growth and induces nerve cells differentiation acts on B-cells, T-cells, hepatocytes, hematopoietic progenitor cells and cells of the CNS. The human IL-6 is a single non-glycosylated polypeptide chain containing 183 amino acids and it signals through a cell-surface type I cytokine receptor complex consisting of the ligand-binding IL-6Ra chain (CD126), and the signal- transducing component gp130 (also called CD130). The human IL-6 shares about 40% a.a. sequence identity with mouse and rat IL-6 and it is equally active on mouse and rat cells.

Form Lyophilized from a 0.2µm filtered concentrated solution in 20 mM Tris-HCl, pH 8.0, 150 mM NaCl.

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Bio-activity	<p>Assay #1: Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using IL-6-dependent murine 7TD1 cells is less than 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg. Assay #2: Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using IL-6-dependent murine T1165 cells is less than 0.8 ng/ml, corresponding to a specific activity of $> 1.25 \times 10^7$ IU/mg.</p>
Molecular Mass	Approximately 20.8 kDa, a single non-glycosylated polypeptide chain containing 183 amino acids.
AA Sequence	VPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISALRKETCNKSNMCESSKEALAE NNLNLPKMAEKDGCQSGFNEETCLVKIITGLLEFEVYLEYLQNRFFESSEEQARAVQ MSTKVLIQFLQKKAKNLDAITTPDPTTNASLLTKLQAQNQWLQDMTTHLILRSFKEFL QSSLRALRQM
Endotoxin	Less than 0.01 EU/g of rHuIL-6 GMP as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

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GENE INFORMATION

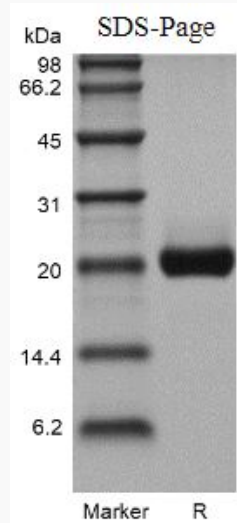
Gene Name	IL6
Official Symbol	IL6
Synonyms	IL6; interleukin 6 (interferon, beta 2); IFNB2; interleukin-6; BSF2; HGF; HSF; IL 6; CDF; BSF-2; IFN-beta-2; interferon beta-2; interleukin BSF-2; hybridoma growth factor; CTL differentiation factor; B-cell stimulatory factor 2; B-cell differentiation factor; IL-6;
Gene ID	3569
mRNA Refseq	NM_000600
Protein Refseq	NP_000591
MIM	147620
UniProt ID	P05231

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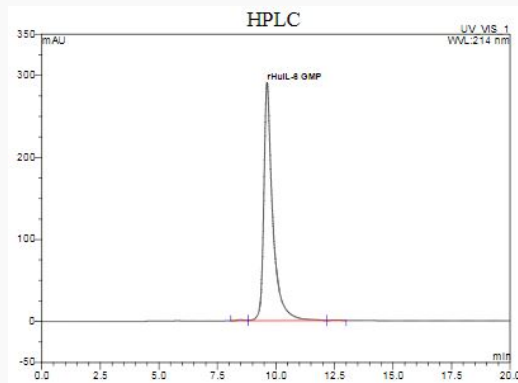
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SDS-PAGE of IL6-4321HG



HPLC of IL6-4321HG



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