

## Recombinant Human IL6 protein

**Cat. No.** IL6-12H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human IL6 protein was expressed in Escherichia coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	183
<b>Description</b>	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.
<b>Form</b>	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
<b>Bio-activity</b>	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

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	<p>less than 0.1 ng/ml, corresponding to a specific activity of <math>&gt; 1.0 \times 10^7</math> IU/mg.</p> <p>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 <math>&gt; 1.25 \times 10^7</math> IU/mg.</p>
<b>Molecular Mass</b>	Approximately 20.8 kDa, a single non-glycosylated polypeptide chain containing 183 amino acids.
<b>AA Sequence</b>	VPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISALRKETCNKSNMCESSKEALAE NNLNLPKMAEKDGCFQSGFNEETCLVKIITGLLEFEVYLEYLQNRFESSEEQARAVQ MSTKVLIQFLQKKAKNLDAITPDPTTNASLLTKLQAQNQWLQDMTTHLILRSFKEFL QSSLRALRQM
<b>Endotoxin</b>	Less than 1.0 EU/g of rHuLL-6 as determined by LAL method.
<b>Purity</b>	>96% by SDS-PAGE and HPLC analysis.
<b>Storage</b>	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.
<b>Reconstitution</b>	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 $\leq -20$ centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

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<b>Gene Name</b>	IL6
<b>Official Symbol</b>	IL6
<b>Synonyms</b>	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;
<b>Gene ID</b>	<a href="#">3569</a>
<b>mRNA Refseq</b>	<a href="#">NM_000600</a>
<b>Protein Refseq</b>	<a href="#">NP_000591</a>
<b>MIM</b>	<a href="#">147620</a>
<b>UniProt ID</b>	<a href="#">P05231</a>