



## Recombinant Human Interleukin-6 (rhIL-6)

Catalog #101-06

### 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-6R $\alpha$  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.

### Specifications

|                      |                                                                                                                                                                                                                               |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Synonyms:            | BSF-2, CDF, Hybridoma growth factor, IFN-beta-2                                                                                                                                                                               |
| AA Sequence:         | SVPPGEDSKDV AAPHRQPLTS SERIDKQIRY<br>ILDGISALRK ETCNKS NMCE SSKEALAENN<br>LNLPKMAEKD GCFQSGFNEE TCLVKIITGL<br>LEFEVYLEYL QNRFESSEEQ ARAVQMSTKV<br>LIQFLQKKAK NLDAITTPDP TTNASLLTKL<br>QAQNQWLQDM TTHLILRSFK EFLQSSLRAL<br>RQM |
| Source:              | <i>Escherichia coli</i>                                                                                                                                                                                                       |
| Molecular Weight:    | 20.8 kDa, a single non-glycosylated polypeptide chain containing 184 amino acids                                                                                                                                              |
| Purity               | > 95%                                                                                                                                                                                                                         |
| Physical Appearance: | White lyophilized powder.                                                                                                                                                                                                     |
| Endotoxin:           | <0.1 ng/ $\mu$ g of protein (<1 EU/ $\mu$ g)                                                                                                                                                                                  |

Rev. 0

**Formulation**

Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.4.

**Reconstitution**

Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.

**Shipping and Storage**

Gel pack. Upon receipt, store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.

**Usage**

rhIL-6 is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.