

# Recombinant Human IL-6

Catalog # FL174

## Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 0.01 EU/ $\mu$ g of rHuIL-6 protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Human
Tag	Tag free.
Activity	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 $\geq 1.0 \times 10^7$ IU/mg
Formulation	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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 $\leq -20^\circ\text{C}$ . Further dilutions should be made in appropriate buffered solutions.
Accession #	P05231 Val30-Met212
Amino acid sequence	VPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGIALRKETCNKSNMCESSKEALAEENLNLPKMAEKDGCQSGFNEETCLVKIITGLLEFEVYLEYLQNRFESEEQARAVQMSTKVLIQFLQKKAKNLDAITTPDPTTNASLLTKLQAQNQWLQDMTTHLILRSFKEFLQSSLRALRQM
Molecular weight	Approximately 20.8 kDa, a single non-glycosylated polypeptide chain containing 183 amino acids.
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$ . Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, $-20$ to $-70^\circ\text{C}$ as supplied. 1 month, 2 to $8^\circ\text{C}$ under sterile conditions after reconstitution. 3 months, $-20$ to $-70^\circ\text{C}$ under sterile conditions after reconstitution.
Precautions	Recombinant Human IL-6 is for research use only and not for use in diagnostic or therapeutic procedures.

## Background

IL-6 is a pleiotropic cytokine that plays an important role in host defense by regulating immune and inflammatory responses. Produced by T cells, monocytes, fibroblasts, endothelial cells and keratinocytes, 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. IL-6 signals through the IL-6 receptor system that consists of two chains, IL-6R  $\alpha$  and gp130. Both human and murine are equally active on murine cells. Recombinant Human IL-6 is a 20.8kDa protein containing 183 amino acid.

