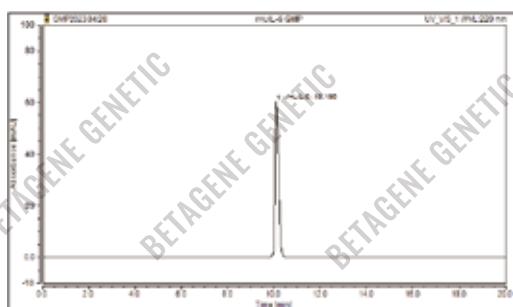


# RECOMBINANT HUMAN IL-6 TAG-FREE GMP

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical Appearance       | Sterile Filtered White lyophilized (freeze-dried) powder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Gene ID                   | 3569                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Description               | 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. Murine IL-6 is inactive on human cells, while both human and murine are equally active on murine cells. |
| Catalog Number            | GE15.1/GE15.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Unit Size                 | 20 $\mu$ g/100 $\mu$ g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Source                    | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Molecular Weight          | Approximately 20.8 kDa, a single non-glycosylated polypeptide chain containing 183 amino acids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| AA Sequence               | VPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISALRKETCNKSNMCESSKEALAENNLNLPKMAEKDGCFSQGFNEETCLVKIITGLLEFEVYLEYLQNRFFESSEEQARAVQMSTKVLIQFLQKKAKNLDAITTPDPTTNASLLTKLQAQNWQLQDMTTHILRSFKEFLQSSLRALRQM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Purity (HPLC)             | > 98%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Purity (SDS-PAGE)         | > 98%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Biological Activity       | Assay 1: The ED <sub>50</sub> 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 <sup>7</sup> Units/mg.<br>Assay 2: The ED <sub>50</sub> 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 <sup>6</sup> Units/mg.                                                                                                                                                                                                                                       |
| Host Cell DNA Residue     | < 0.02 ng/ $\mu$ g of protein tested by DNA Fluorescent Staining method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Host Cell Protein Residue | < 0.5 ng/ $\mu$ g of protein tested by ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Formulation               | Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in 20mM PB, 150mM NaCl, pH7.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Sterility                 | Negative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Endotoxin                 | < 0.01EU/ $\mu$ g as determined by LAL gel-clot method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Mycoplasma                | Negative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Reconstitution            | Before use this product, please read the direction below carefully.<br>1. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom.<br>2. Reconstitute in a sterile aqueous buffer to an appropriate concentration.<br>3. Stock solutions should be apportioned into working aliquots and stored at $\leq$ -20 °C. Further dilutions should be made in appropriate buffered solutions.                                                                                                                                                                                                                                                                       |
| Stability & Storage       | For long term storage, the product should be stored $\leq$ -20 °C.<br><b>Please avoid repeated freeze-thaw cycles after reconstitution.</b><br>1. At least 24 months from date of receipt, $\leq$ -20 °C as supplied;<br>2. 1 month, 2 to 8 °C under sterile conditions after reconstitution;<br>3. 3 months, -20 to -70 °C under sterile conditions after reconstitution.                                                                                                                                                                                                                                                                                                                     |
| Shipping                  | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



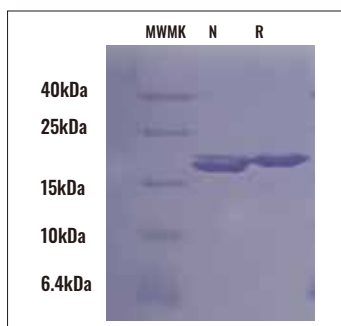
## DATA



## Purity of Recombinant Human IL-6

## HPLC

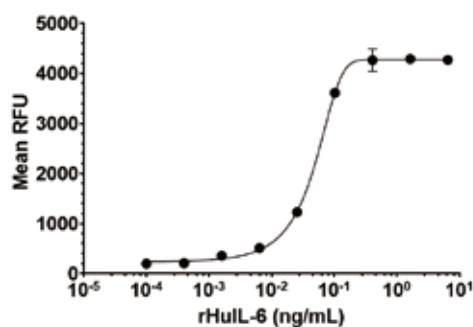
HPLC analysis of Recombinant Human IL-6. The major peak corresponds to the calculated purity of > 98%



## Purity of Recombinant Human IL-6

## SDS-PAGE

5 µg/lane of Recombinant Human IL-6 was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing R band at 20.8 kDa.



## Bioactivity of Recombinant Human IL-6

The ED<sub>50</sub> 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 × 10<sup>7</sup> Units/mg.

## CONTENTS

| Product                            | Cat. No.         | Amount        | Storage | Shelf life |
|------------------------------------|------------------|---------------|---------|------------|
| Recombinant Human IL-6 (GMP-Grade) | GE15.1<br>GE15.2 | 20µg<br>100µg | ≤-20°C  | 24 months  |

## LIMITED WARRANTY

BETAGENE™ Genetic and/or its affiliate(s) warrant their products as set forth in the BETAGENE Genetic' General Terms and Conditions of Sale. If you have any questions, please contact our staff at SALES@betagene.com.

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