

Recombinant Human Interleukin-6

#R00041

Size: 5 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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-6Rα 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.

AA Sequence

VPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISAL
RKETCNKSNMCESSKEALAENNLNLPKMAEKDGC
FQSGFNEETCLVKIITGLLEFEVYLEYLQNRFESSEEQA
RAVQMSTKVLIQFLQKKAKNLDAITTPDPTTNASLLTK
LQAQNQWLQDMTTHLILRSFKEFLQSSLRALRQM

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 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	BSF-2, CDF, Hybridoma growth factor, IFN-beta-2.
Accession	P05231
GeneID	3569
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 20.8 kDa, a single non-glycosylated polypeptide chain containing 183 amino acids.
Purity	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity	Assay #1: Fully biologically active when compared to standard. The ED ₅₀ 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 $> 1.25 \times 10^6$ IU/mg.

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1.0 EU/µg of rHuIL-6 as determined by LAL method.
