

Product Information

Interleukin-6, human, Carrier Free recombinant, expressed in *E. coli*

Catalog Number **I2786**

Storage Temperature –20 °C

Synonyms: IL-6, B cell stimulating factor (BSF-2), plasmacytoma growth factor (PCT-GF), interferon β 2 (IFN β 2), monocyte derived human B cell growth factor, hepatocyte stimulating factor (HSF), interleukin hybridoma/plasmacytoma-1 (IL-HP1)

Product Description

Interleukin-6 (IL-6) is a multifunctional 26 kDa protein originally discovered in the medium of RNA-stimulated fibroblastoid cells.¹ Interleukin-6 appears to be directly involved in the immune responses that occur after infection and cellular injury, and it may prove to be as important as IL-1 and TNF- α in regulating the acute phase response.^{2,3}

IL-6 is reportedly produced by fibroblasts, activated T cells, activated monocytes or macrophages, and endothelial cells. It acts upon a variety of cells including fibroblasts, myeloid progenitor cells, T cells, B cells, and hepatocytes. IL-6 induces multiple effects as indicated by its numerous synonyms.⁴ In addition, IL-6 appears to interact with IL-2 in the proliferation of T lymphocytes.⁵ IL-6 potentiates the proliferative effect of IL-3 on multipotential hematopoietic progenitors.⁶

This product is lyophilized from a 0.2 μ m-filtered solution of phosphate buffered saline, pH 7.4, containing a stabilizer.

Purity: >97% (SDS-PAGE)

EC₅₀: 0.2–2.0 ng/mL

The biological activity of recombinant human IL-6 was tested in culture by measuring its ability to stimulate proliferation of the IL-6 dependent mouse T1165.85.2.1 cells. The EC₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Endotoxin level: ≤1 EU/ μ gP

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute the contents of the vial with endotoxin free water to a concentration of 100 μ g/mL. For lower concentrations, the prepared solution should be diluted in medium containing at least 0.5% protein before use (e.g., cell culture medium containing 5–10% serum).

Storage/Stability

Store the product at –20 °C. When stored at –20 °C, the product is stable for at least 2 years. After reconstitution, store at 2–8 °C for a maximum of 3 months. For extended storage freeze in working aliquots at –70 °C or –20 °C. Repeated freezing and thawing is not recommended.

References

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2. Gauldie, J. et al., Interferon beta 2/B-cell stimulatory factor type 2 shares identity with monocyte-derived hepatocyte-stimulating factor and regulates the major acute phase protein response in liver cells. *Proc. Natl. Acad. Sci. USA*, **84**, 7521-7255 (1987).
3. Van Snick, J., Interleukin-6: an overview. *Ann. Rev. Immunol.*, **8**, 253-278 (1990).
4. Kishimoto, T., IL-6: from laboratory to bedside. *Clin. Rev. Allergy Immunol.*, **28**, 177-186 (2005).
5. Nordan, R. et al., Purification and NH2-terminal sequence of a plasmacytoma growth factor derived from the murine macrophage cell line P388D1. *J. Immunol.*, **139**, 813-817 (1987).
6. Van Snick, J. et al., Purification and NH2-terminal amino acid sequence of a T-cell-derived lymphokine with growth factor activity for B-cell hybridomas. *Proc. Natl. Acad. Sci. USA*, **83**, 9679-9683 (1986).

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