



Product Information

Interleukin-6 (IL-6)

Mouse, Recombinant
Expressed in *E. coli*

Product Number **I 9646**

Storage Temperature $-20\text{ }^{\circ}\text{C}$

Product Description

Recombinant Mouse Interleukin-6 (IL-6) is a 21.7 kDa protein containing 187 amino acid residues that is expressed in *E. coli*.

Interleukin-6 (IL-6), is a multifunctional protein originally discovered in the medium taken from RNA-stimulated fibroblastoid cells.¹ Interleukin-6, a potent lymphoid cell growth factor, stimulates the growth and survivability of certain B cells and T cells. Interleukin-6 appears to be directly involved in the responses that occur after infection and injury. It may be as important as IL-1 and TNF- α in regulating the acute phase response.^{2,3} IL-6 is produced by fibroblasts, activated T cells, activated monocytes or macrophages, and endothelial cells. It acts on a variety of cells including fibroblasts, myeloid progenitor cells, T cells, B cells, and hepatocytes.³ Interleukin-6 induces multiple effects as indicated by its numerous synonyms, plasmacytoma growth factor (PCT-GF), interferon- β 2 (IFN- β 2), monocyte derived human B cell growth factor, B cell stimulating factor (BSF-2), hepatocyte stimulating factor (HSF) and interleukin hybridoma/plasmacytoma-1 (IL-HP1). In addition, IL-6 appears to interact with IL-2 in the proliferation of T lymphocytes.⁴ IL-6 also potentiates the proliferative effect of IL-3 on multipotential hematopoietic progenitors.⁵

Reagent

Recombinant Mouse Interleukin-6 (IL-6) is supplied lyophilized from a sterile filtered solution with no additives.

Storage/Stability

Prior to reconstitution, store the lyophilized protein at $-20\text{ }^{\circ}\text{C}$. It is stable for up to a few weeks at room temperature, but is best stored at $-20\text{ }^{\circ}\text{C}$. For extended storage, after reconstitution, store in working aliquots at $-20\text{ }^{\circ}\text{C}$. Repeated freezing and thawing is not recommended.

Preparations Instructions

Reconstitute the contents of the vial in water to a concentration of 0.1-1 mg/ml. **Note: Slow to dissolve.** This solution can then be diluted into other aqueous buffers and stored at 2-8 $^{\circ}\text{C}$ for up to 1 week. For extended storage, freeze in working aliquots. It may be advisable to centrifuge the vial prior to reconstitution.

Product Profile

The biological activity of recombinant mouse IL-6 was measured in a cell proliferation assay using the mouse 7TD1 cells.⁶ The EC_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

References

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2. Gauldie, J., et al., Proc. Natl. Acad. Sci. USA, **84**, 7251 (1987).
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4. Nordan, R., et al., Science, **233**, 566 (1986).
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6. Nordan, R., et al., J. Immunol., **139**, 813, (1987).

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