



Product Information

INTERLEUKIN-11 (IL-11) HUMAN, RECOMBINANT Expressed in Sf21 Insect Cells

Product No. I 3644

Description

Interleukin-11 (IL-11) acts on hematopoietic progenitor cells and stromal cells.¹ The cDNA sequence of IL-11 is identical to the cDNA sequence of adipogenesis inhibitory factor (AGIF). Although human recombinant IL-11 has a predicted molecular mass of 19 kD, it migrates as a 23 kD band in SDS-PAGE. The human IL-11 gene consists of five exons and four introns and has been mapped on chromosome 19 at band 19q13.3-q13.4.¹ IL-11 will enhance the proliferation of IL-6 dependent plasmacytoma cells.^{2,3} IL-11 stimulates the production of erythrocytes⁴ and megakaryocytes.² Both IL-11 and IL-6 enhance the proliferation of mouse plasmacytoma cells,⁵ such as the plasmacytoma T1165. Synergistically with IL-3, IL-11 is able to shorten the G₀ period of early hematopoietic progenitors.⁶ The mature 178 amino acid recombinant protein is a non-glycosylated protein which does not contain any cysteine residues.

Performance Characteristics

The biological activity of human recombinant IL-11 is measured in a cell proliferation assay using T11 cells, a subline of the IL-6 dependent murine plasmacytoma cell line T1165.85.2.1.⁷ The EC₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Product Information

Expressed in Sf21 insect cells

Molecular Weight: 19 kD

Purity: ≥ 97% as determined by SDS-PAGE and N-terminal analysis.

EC₅₀: 0.02 - 0.4 ng/ml

Package size: 5 µg

Lyophilization Buffer: Lyophilized from a 0.2 µm- filtered solution of phosphate buffered saline, pH 7.4.

Carrier Protein: 250 µg bovine serum albumin (BSA).

Sterility: 0.2 µm filtered, aseptic fill

Endotoxin: ≤ 0.1 ng/µg IL-11

Reconstitution

Reconstitute the contents of the vial using sterile-filtered PBS containing 0.1% HSA or BSA to a concentration not less than 1 µg/ml.

Storage

Prior to reconstitution, store at -20 °C. 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

1. Kawashima, I., et al., Progress in Growth Factor Research, **4**, 191 (1992).
2. Paul, S., et al., Proc. Natl. Acad. Sci. USA, **87**, 7512 (1990).
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4. Quesniaux, V., et al., Blood, **80**, 1218 (1992).
5. van Damme, J., et al., J. Exp. Med., **165**, 914 (1987).
6. Musashi, M., et al., Proc. Natl. Acad. Sci. USA, **88**, 765 (1991).
7. Nordan, R., et al., J. Immunol., **139**, 813 (1987).

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