Product Information Sheet

Interleukin-2 (IL-2)

Human, Recombinant

SRP3085

Product Description

Recombinant Human Interleukin-2 is a 15.5 kDa protein containing 134 amino acid residues including one intrachain disulfide bond.

Interleukin-2 (IL-2), also known as T Cell Growth Factor (TCGF) and aldesleukin, is an immunomodulatory lymphokine produced by T cells in response to antigenic or mitogenic stimulation.[1] IL-2/IL-2 receptor signaling is required for T cell proliferation and other functions, which are essential for immune response. Interleukin-2 promotes growth and differentiation of B cells, NK cells, lymphokine-activated killer (LAK) cells, monocytes, macrophages, and oligodendrocytes. It has been shown to affect the activation and proliferation of NK cells, induce γ-interferon and B cell growth factor secretion,[2, 3] and modulate the expression of the IL-2 receptor (IL-2R).[4] Interleukin-2 has been isolated from a number of cell types [5, 6] and has been reproduced by recombinant DNA technology.[7]

Reagent

Recombinant Human Interleukin-2 is supplied as lyophilized with no additives. It is sterile filtered through a 0.2 µm filter.

Storage/Stability

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

Preparation Instructions

Reconstitute the contents of the vial using 100 mM acetic acid to a concentration of 0.1-1.0 mg/mL. This solution can then be diluted into other aqueous buffers and stored at 2-8 °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 Human Interleukin-2 is measured by the dose-dependent stimulation of the proliferation of the IL-2 dependent mouse cytotoxic T-cell line, CTLL-2.[8] 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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8. Gearing, A., et al., In: Lymphokines and Interferons, A Practical Approach, Clemens, M., et al. (eds.), 296 (IRL Press, Oxford, 1987).

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