

Product Information

Interleukin-6 human from human osteosarcoma cells

Catalog Number **I3268**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonym: IL-6

Product Description

Interleukin-6 (IL-6) is a multipotent cytokine, which mediates the helper function of T cells. IL-6 affects T cells and other tissues and cells.¹ It acts as a hepatocyte stimulating factor and induces various acute-phase proteins in liver cells. IL-6 acts on hematopoietic stem cells in cooperation with IL-3 to promote the transition from the G_0 to the G_1 phase in the cell cycle. IL-6 induces maturation of megakaryocytes, resulting in an increase in platelets. IL-6 acts as a potent growth factor for human myeloma and murine plasmacytoma cells. IL-6 induces differentiation of M1 murine myeloid leukemic cells into macrophages and it induces neuronal differentiation of PC-12 pheochromocytoma cells in a manner similar to that induced by nerve growth factor.^{2,3}

This Interleukin-6 product is isolated from human MG-63 osteosarcoma cells induced with human IL-1 β . It is supplied in a phosphate buffered saline solution containing 0.1% human serum albumin.

Purity: $\geq 90\%$ (SDS-PAGE)

IL-6 activity is determined in a bioassay system of T-1165 cell proliferation. One unit is defined as the amount of IL-6 required to induce half-maximal proliferation of T-1165 cells *in vitro*.

Human IL-6 has also been compared to the first international standard for IL-6 (NIBSC code no. 89/548). One reference unit is equal to 15 International Units (IU) of IL-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.

Precautions and Disclaimer

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

Preparation Instructions

The contents of the vial may be further diluted using PBS or tissue culture media containing 0.1–1.0% human serum albumin (HSA) or 1–10% serum according to the application. If aseptic technique is used, additional filtration should not be necessary and should be avoided due to possible adsorption to the filter membrane.

Storage/Stability

Store the product in aliquots at $-20\text{ }^{\circ}\text{C}$. Prolonged storage of product or repeated freezing and thawing is not recommended and will result in decreased biological activity.

References

1. Kishimoto, T., et al., *Science*, **258**, 593 (1992).
2. Kisimoto, T., *Blood*, **74**, 1 (1989).
3. Van Snick, J., *Annu. Rev. Immunol.*, **8**, 253 (1990).
4. Van Damme, J., and Billiau, A., *Methods Enzymol.*, **78**, 101 (1981).

EM,JWM,PSS,MAM 11/10-1

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