

Product Information

HumanKine™ Interleukin-3, human recombinant, expressed in HEK 293 cells

Catalog Number **H7166**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonym: IL-3

Product Description

HumanKine™ IL-3, expressed in human 293 cells, is a glycosylated monomer with an apparent molecular mass of 17–45 kDa due to glycosylation, which is absent when this cytokine is expressed in *E. coli*. Production in human 293 cells offers authentic glycosylation. Glycosylation contributes to stability in cell growth media and other applications.

Interleukin-3 (IL-3), originally called Colony Forming Unit-Stimulating Activity (CFU-SA),¹ is a multifunctional protein produced by activated T lymphocytes.² IL-3 supports the formation of multilineage colonies in the early development of multipotent hematopoietic progenitor cells. IL-3 induces colony formation of macrophages, neutrophils, mast cells, and megakaryocytes from agar suspended bone marrow cells.³ It interacts with IL-2 to stimulate growth of T lymphocytes⁴ and induces immunoglobulin secretion from activated B cells.⁵

Other synonyms for IL-3 include Pan-Specific Hematopoietin, Multicolony Stimulating Factor, Burst Promoting Activity, Histamine-Producing Cell Stimulating Factor, P Cell Stimulating Factor, and WEHI-3 factor.⁶ IL-3 is a species-specific, variably glycosylated cytokine.

This product is lyophilized from a PBS solution.

ED₅₀: $\leq 4.0\text{ ng/mL}$

The activity was determined by the dose dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line).

Purity: $\geq 95\%$ (SDS-PAGE)

Endotoxin level: $\leq 1\text{ EU}/\mu\text{g}$

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

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile PBS containing 0.1% endotoxin-free recombinant human serum albumin.

Storage/Stability

Store the product at $-20\text{ }^{\circ}\text{C}$. The lyophilized product remains active for one year at $-20\text{ }^{\circ}\text{C}$.

Upon reconstitution, the cytokine can be stored at $2-8\text{ }^{\circ}\text{C}$ for short term only, or at $-20\text{ }^{\circ}\text{C}$ to $-80\text{ }^{\circ}\text{C}$ in aliquots for long term. Avoid repeated freeze-thaw cycles.

References

1. Cerny, J., et al., *Nature*, **249**, 63 (1974).
2. Luger, T.A., et al., *J. Immunol.*, **134**, 915 (1985).
3. Schrader, J.W., et al., *Immunol. Rev.*, **76**, 79 (1983).
4. Santoli, D., et al., *J. Immunol.*, **141**, 519 (1988).
5. Tadmori, W., et al., *J. Immunol.*, **142**, 1950 (1989).
6. Schrader, J.W., *Annu. Rev. Immunol.*, **4**, 205 (1986).

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