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Product Information

Interleukin-9 (IL-9)

Human, recombinant, expressed in Sf 21 cells

Catalog Number I 3394

Storage Temperature -20 °C

Product Description

Human Interleukin-9 was first identified based on its proliferative activity on a human myeloid leukemic cell line.¹ Human IL-9 stimulates the proliferation of the human megakaryocytic leukemic cell line M07e.² Human IL-9 supports erythroid colony formation, and synergizes with IL-4 in the production of IgE and IgG.^{3,4} There are high affinity receptors for IL-9 on a variety of hematopoietic cells, including T cells, mast cells, and macrophages.¹ The human IL-9 genomic sequence was determined, and the gene contains five exons and four introns.^{5,6} The IL-9 gene has been mapped to the long arm of human chromosome 5^{6,7} at band 5q31.2-31.3³ by *in situ* hybridization. Many growth factor, and growth factor receptor genes including GM-CSF, IL-3, IL-4, IL-5, endothelial cell growth factor, and platelet derived growth factor receptor, have been mapped to this region of chromosome 5. There is high sequence homology between mouse and human IL-9. The molecular weight of human IL-9 is 20-30 kDa.¹

Suitability: cell culture tested

Purity: ≥97% (SDS-PAGE and N-terminal analysis)

The biological activity of human recombinant IL-9 was determined in a cell proliferation assay using M07e cells, a human megakaryocytic leukemic cell line.⁸

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

Reconstitute the contents of the vial using 0.2 µm-filtered PBS containing 0.1% BSA to a concentration of not less than 1 µg/ml.

Storage and Stability

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 -20 °C or -70 °C. Repeated freezing and thawing is not recommended.

References

1. Yang, Y., *Leukemia and Lymphoma*, **8**, 441 (1992).
2. Yang, Y., et al., *Blood*, **74**, 1880 (1989).
3. Donahue, R., et al., *Blood*, **75**, 2271 (1990).
4. Petit-Frere, C., et al., *Cytokine*, **3**, 466 (1991).
5. Renauld, J., et al., *J. Immunol.*, **144**, 4235 (1990).
6. Kelleher, K., et al., *Blood*, **77**, 1436 (1991).
7. Mock, B., et al., *Immunogenetics*, **31**, 265 (1990).
8. Avanzi, G., et al., *Br. J. Haematology*, **69**, 359 (1988).

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