3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Interleukin-5 (IL-5)
Mouse, Recombinant
Expressed in *Sf* 21 Cells

Product Number **I 1145**

Product Description

Interleukin-5 (IL-5) is a product of activated T lymphocytes and exhibits activity on eosinophils, B cells and thymocytes. Synonyms or biological activities attributed to IL-5 include: EDF (eosinophil differentiating factor), BCGF-II (B cell growth factor-II), TRF (T cell replacing factor), IgA-EF (IgA enhancing factor), and EO-CSF (eosinophil colony stimulating factor).[1-4] Human and mouse IL-5 show limited species cross-reactivity.[5]

Natural IL-5 is a 45-50 kDa dimeric glycoprotein,[6,7] although glycosylation is not required for activity. Mouse IL-5 is an acidic glycoprotein. The mature mouse IL-5 molecule is a homodimer, each monomer is comprised of 113 amino acid residues and is heavily glycosylated.[8] Mouse, recombinant IL-5 induces IgM, IgG, and IgA synthesis by activated B cells as well as resting B cells.[8] Mouse recombinant IL-5 also induces DNA synthesis in activated B cells, and supports the growth of stromal cell-dependent and stromal cell independent early B cell precursor lines derived from bone marrow precursors.[8]

Reagents

Lyophilized from a 0.2 µm-filtered solution of phosphate buffered saline, pH 7.4 containing 250 µg bovine serum albumin (BSA) as a carrier protein.

Reconstitution

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

Storage/Stability

Prior to reconstitution, store at –20 °C.

After reconstitution, store at 0-5 °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.

Product Profile

The proliferative activity of mouse IL-5 is tested in culture using human TF-1 cells.[7]

References

1. Clutterbuck, E. J., et al.,Blood, **73**, 1504 (1989).
2. Takatsu, K., et al., Immunol. Rev., **102**, 107 (1988).
3. Sanderson, C. J., et al., J. Exp. Med., **162**, 60 (1985).
4. Ramos, T., Immunol. Lett., **21**, 277 (1989).
5. Kitamura, T., et al., J. Cell. Physiol., **140**, 323 (1989).
6. McKenzie, D. T., et al., J. Immunol., **139**, 2661 (1987).
7. Tominaga, A., et al., J. Immunol., **140**, 1175 (1988).
8. Honjo, T., et al., *Peptide Growth Factors and Their Receptors* I, p.627 Sporn, M., and Roberts, A., (eds.), Springer-Verlag, Berlin (1991).

JWM/daa 7/2003

Sigma brand products are sold through Sigma-Aldrich, Inc.
Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.