RECOMBINANT MOUSE INTERLEUKIN-7 (mIL-7)

Catalog # 02707	**5 µg per vial**
Catalog # 02907	**25 µg per vial**

PRODUCT DESCRIPTION:

Interleukin-7 (IL-7) is a stromal cell-derived growth factor produced in bone marrow, thymus and spleen. IL-7 promotes the proliferation of precursor B-cells, thymocytes, T cell progenitors and mature CD4+ and CD8+ T cells. IL-7 can induce the formation of lymphokine-activated killer (LAK) cells as well as the development of cytotoxic T lymphocytes (CTL). Recently, IL-7 was also shown to induce the V(D)J rearrangement of the T cell receptor β gene in mouse fetal thymocytes. Among myeloid lineage cells, IL-7 can up-regulate the production of pro-inflammatory cytokines and stimulate the tumorocidal activity of monocytes/macrophages. IL-7 binds to a high affinity receptor formed by the ligand binding subunit (IL-7 R) and the γ chain of the IL-2 receptor. Mouse IL-7 cDNA encodes a precursor protein of 154 amino residues containing a 25 amino acid residue signal peptide. The methionyl form of recombinant mouse
IL-7 contains 130 amino acid residues and has a molecular mass of approximately 15 kDa.

SOURCE:

A DNA sequence encoding the mature mouse IL-7 protein was expressed in *E. coli.*

PURITY:

Greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level less than 0.1 ng per 1 µg of the cytokine as determined by the LAL method.

FORMULATION:

Lyophilized from a sterile solution in PBS containing 50 µg of bovine serum albumin per 1 µg of cytokine.

RECONSTITUTION:

It is recommended that sterile PBS containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of no less than 1 µg/mL of the cytokine.

STABILITY/STORAGE:

Lyophilized samples are stable for greater than six months at -20°C to -70°C.
Reconstituted mouse IL-7 can be stored under sterile conditions at 2°C to 4°C for one month or at -20°C to
-70°C for three months without detectable loss of activity.

Avoid repeated freeze-thaw cycles.

ACTIVITY:

Activity was determined by T cell growth factor activity in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes and the ED_{50} for this effect was typically 0.15 - 0.3 ng/mL.

THIS REAGENT IS FOR RESEARCH USE ONLY.
IT IS NOT TO BE ADMINISTERED TO HUMANS.

STEMCELL TECHNOLOGIES INC
777 West Broadway, Suite 808
Vancouver, British Columbia
CANADA V5Z 4J7
Tel: (604) 877-0713 Toll-free Tel: 1-800-667-0322
Fax: (604) 877-0704 Toll-free Fax: 1-800-567-2899
Website: www.stemcell.com E-mail: info@stemcell.com
Revised October 2003