Recombinant Murine Interleukin-3

#R00218

Size: 10 μg/100 μg/500 μg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Interleukin-3 (IL-3) is a type of biological signal (cytokine) which is encoded by the IL-3 gene located on chromosome 5 and produced primarily by activated T cells beside human thymic epithelial cells, activated murine mast cells, murine keratinocytes and neurons/astrocytes. The protein acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. In addition, it exerts its biological activities through binding to interleukin-3 receptors included α and β subunits. The Mouse IL-3 is different from human IL-3 and contains 140 amino acids residues. Specifically, mouse and human IL-3 share low homology and have not cross species activity.

AA Sequence

DTHRLTRTLNCSSIVKEIIGKLPEPELKTDDEGPSLRN KSFRRVNLSKFVESQGEVDPEDRYVIKSNLQKLNCCL PTSANDSALPGVFIRDLDDFRKKLRFYMVHLNDLETV LTSRPPQPASGSVSPNRGTVEC

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Hematopoietic growth factor, MCGF, Multipotential colony-stimulating factor, P-cell-stimulating factor.
Accession	P01586
GeneID	16187
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 14.8 kDa globular protein containing 134 amino acid residues.
Purity	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by the dose-dependent stimulation of the proliferation of murine

	M-NFS-60 cells is less than 0.05 ng/ml, corresponding to a specific activity of > 2 × 10^7 IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/μg of rMuIL-3 as determined by LAL method.