Recombinant Rhesus Macaque Interleukin-3

#R00201

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 an interleukin, 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. The rhesus macaque IL-3 reported to be a monomer, as it is known, contains 124 amino acids residues which is a single non-glycosylated polypeptide. Specifically, recombinant rhesus macaque, human and murine IL-3 share low homology.

AA Sequence

APMTQTTSLKTSWAKCSNMIDEIITHLNQPPLPSPDF
NNLNEEDQTILVEKNLRRSNLEAFSKAVKSLQNASAIE
SILKNLPPCLPMATAAPTRPPIRITNGDRNDFRRKLKF
YLKTLENEQAQ

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	P25140
GeneID	706946
Species	Rhesus
Source	Escherichia coli.
Molecular Weight	Approximately 14.0 kDa, a single non-glycosylated polypeptide chain containing 124 amino acids.
Purity	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity	Assay #1: Fully biologically active when compared to standard. The ED_{50} as determined by the

	dose-dependent stimulation of the proliferation of murine NFS-60 cells is less than 5.0 ng/ml, corresponding to a specific activity of > 2×10^5 IU/mg. Assay #2: The ED_{50} as determined by a cell proliferation assay using human TF-1 cells is less than 0.05 ng/ml, corresponding to a specific activity of > 2.0×10^7 IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4, 5 % trehalose.
Endotoxin	Less than 1 EU/μg of rRhIL-3 as determined by LAL method.