

Recombinant Canine Interleukin-3

Information

Gene ID	481497
Accession #	Q9BDX4
Alternate Names	Hematopoietic Growth Factor, MCGF, Multipotential Colony-stimulating Factor, P-cell-stimulating Factor
Source	Escherichia coli.
M.Wt	Approximately 14.0 kDa, a single non-glycosylated polypeptide chain containing 120 amino acids.
AA Sequence	RPFSTDLPKQ YFTMINEIME MLNKSPSPSE EPLDSNEKET LLEDTLRLPN LDVFLNASSK FHKNGLLIWN NLKEFLPLLP TPTPRGEPIS IMENNWGDFQ RKLKKYLEAL DNFLNFKNKP
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
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.
Biological Activity	Fully biologically active when compared to standard. The ED as determined by a cell proliferation assay using human TF-1 cells is less than 0.2 ng/ml, corresponding to a specific activity of > 5.0 × 10 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10µg	100µg	500µg
Recombinant Canine Interleukin-3	10µg	100µg	500µg

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- 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

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rCalL-3 as determined by LAL method.

Description

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. The canine IL-3 reported to be a monomer, as it is known, contains 120 amino acids residues which is a single non-glycosylated polypeptide. The canine IL-3 shares < 40 % amino acid sequence identity with IL-3 of other mammals.

Reference

1. Yang YC, Ciarletta AB, Temple PA, et al. 1986. Cell. 47:3-10
2. Otsuka T, Miyajima A, Brown N, et al. 1988. J Immunol. 140:2288-95
3. Shin IS, Kim HR, Nam MJ, et al. 2001. J Vet Sci. 2:115-20.

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