

# Recombinant Canine Interleukin-3

#R00290

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. 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.

## AA Sequence

RPFSTDLPKQYFTMINEIMEMLNKSPSPSEEPLDSNE  
KETLLEDTLRLPNLDVFLNASSKFHKNGLLIWNNLKEF

LPLLPTPTPRGEPISIMENNWGDFQRKLKKYLEALDN  
FLNFKNKP

## 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

|                            |                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Synonyms</b>            | Hematopoietic Growth Factor, MCGF, Multipotential Colony-stimulating Factor, P-cell-stimulating Factor                            |
| <b>Accession</b>           | Q9BDX4                                                                                                                            |
| <b>GeneID</b>              | 481497                                                                                                                            |
| <b>Species</b>             | Canine                                                                                                                            |
| <b>Source</b>              | Escherichia coli.                                                                                                                 |
| <b>Molecular Weight</b>    | Approximately 14.0 kDa, a single non-glycosylated polypeptide chain containing 120 amino acids.                                   |
| <b>Purity</b>              | > 97 % by SDS-PAGE and HPLC analyses.                                                                                             |
| <b>Biological Activity</b> | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using human |

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|----------------------------|-----------------------------------------------------------------------------------------------------------|
|                            | TF-1 cells is less than 0.2 ng/ml, corresponding to a specific activity of > 5.0 × 10 <sup>6</sup> IU/mg. |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.                                                 |
| <b>Formulation</b>         | Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.                                  |
| <b>Endotoxin</b>           | Less than 1 EU/μg of rCalL-3 as determined by LAL method.                                                 |

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