

## IL-3 Protein, Canine

<b>Cat. No.:</b>	HY-P7216
<b>Synonyms:</b>	rCaIL-3; Mast cell growth factor; MCGF; Hematopoietic growth factor
<b>Species:</b>	Canine
<b>Source:</b>	E. coli
<b>Accession:</b>	Q9BDX4 (R24-P143)
<b>Gene ID:</b>	481497
<b>Molecular Weight:</b>	Approximately 14.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>R P F S T D L P K Q    Y F T M I N E I M E    M L N K S P S P S E    E P L D S N E K E T</p> <p>L L E D T L L R P N    L D V F L N A S S K    F H K N G L L I W N    N L K E F L P L L P</p> <p>T P T P R G E P I S    I M E N N W G D F Q    R K L K K Y L E A L    D N F L N F K N K P</p>
<b>Biological Activity</b>	The ED <sub>50</sub> is <0.2 ng/mL as measured by human TF-1 cells, corresponding to a specific activity of >5.0 × 10 <sup>6</sup> units/mg.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>Interleukin-3 (IL-3) is a multipotent hematopoietic growth factor produced by activated T cells, monocytes/macrophages and stroma cells. Addition of IL-3 to the culture medium induces proliferation, maturation and probably self-renewal of pluripotent hematopoietic stem cells and cells of myeloid, erythroid and megakaryocytic lineages<sup>[1]</sup>. IL-3 preferentially supports the proliferation and differentiation of progenitors at early stages of hematopoietic development. In addition, IL-3 exerts a wide spectrum of biological activities on various target cell populations, including T cells, B cells, eosinophils, basophils and monocytes<sup>[2]</sup>.</p>
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## REFERENCES

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- [1]. Mangi MH, et al. Interleukin-3 in hematology and oncology: current state of knowledge and future directions. *Cytokines Cell Mol Ther.* 1999 Jun;5(2):87-95.
- [2]. Morris CF, et al. Molecular and cellular biology of interleukin-3. *Immunol Ser.* 1990;49:177-214.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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