

## PRODUCT INFORMATION

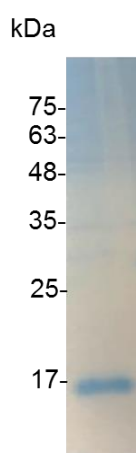
**Croyez GMP® IL-4 (Interleukin-4), Human**

<b>Catalog number</b>	C01006-GMP-100 / C01006-GMP-1000
<b>Package</b>	100 µg / 1 mg
<b>Description</b>	The interleukin-4 (IL-4) is a cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells. Upon activation by IL-4, Th2 cells subsequently produce additional IL-4 in a positive feedback loop. The cell that initially produces IL-4, thus inducing Th2 differentiation, has not been identified, but recent studies suggest that basophils may be the effector cell. It is closely related and has functions similar to IL-13.
<b>Source</b>	<i>Escherichia coli</i> Animal-free reagent and laboratory Manufactured and tested under GMP guideline
<b>Sequence</b>	MHKCDITLQEIIKTLNSLTEQKTLCTELTVTDIFAASKNTEKETFCRAATVLRQFY SHHEKDTRCLGATAQQFHRHKQLIRFLKRLDRNLWGLAGLNSCPVKEANQSTL ENFLERLKTIMREKYSKCSS with polyhistidine tag at the C-terminus
<b>Endotoxin level</b>	<0.1 EU per 1 µg of the protein by the LAL method.
<b>Activity</b>	Measure by its ability to induce TF-1 cells proliferation. The ED <sub>50</sub> for this effect is <0.2 ng/mL. The specific activity of recombinant human IL-4 is approximately >2.8 x 10 <sup>7</sup> IU/mg.
<b>Purity</b>	>98% as determined by SDS-PAGE. Purified by Ni-NTA chromatography.
<b>Formulation</b>	The protein was lyophilized from a solution containing 1X PBS, pH 8.0.
<b>Reconstitution</b>	It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 100 µg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
<b>Storage</b>	Lyophilized protein should be stored at -20°C. This product is stable for one year upon receipt, when handled and stored as instructed. Upon reconstitution, protein aliquots should be stored at -20°C or -80°C. Avoid repeated freeze/thaw cycles.
<b>Note</b>	Please use within one month after protein reconstitution.
<b>Specification</b>	Croyez GMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP-certified facility. The processes include: <ul style="list-style-type: none"> <li>● Testing and traceability of raw material</li> </ul>

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- Records of the maintenance and equipment calibration
  - Personnel training records
  - Batch-to-batch consistency
  - Documentation of QA control and process changes
  - Manufactured and tested under an ISO 13485:2016 certified quality management system
  - Stability monitor of product shelf-life
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**Reference**

1. Junttila IS. (2018) *Front Immunol.* 9: 888.
  2. Ho IC, Miaw SC. (2016) *Adv Exp Med Biol.* 941: 31-77.
  3. Brown MA, Hural J. (2017) *Crit Rev Immunol.* 37,2-6: 181-212.
  4. Luzina, IG. et al. (2012) *J Leukoc Biol.* 92,4: 753-64.
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SDS-PAGE analysis of Croyez GMP® IL-4, Human

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For Research Use Only. Not for use in diagnostic or therapeutic procedures.