

<b>Catalog number</b>	C01023-GMP-1000
<b>Package</b>	1 mg
<b>Description</b>	<p>Interleukin-18 (IL-18) is a cytokine that belongs to the IL-1 superfamily and is produced by macrophages and other cells. IL-18 works by binding to the IL-18 receptor, and together with IL-12 that it induces cell-mediated immunity following infection with microbial products like lipopolysaccharide (LPS). After stimulation with IL-18, natural killer (NK) cells and certain T cells release another important cytokine called interferon gamma or type II interferon that plays an important role in activating the macrophages or other cells. The combination of this cytokine and IL-12 has been shown to inhibit IL-4 dependent IgE and IgG1 production, and enhance IgG2a production in B cells. IL-18 binding protein (IL-18BP) can specifically interact with this cytokine, and thus negatively regulate its biological activity.</p>
<b>Source</b>	<p><i>Escherichia coli</i>          Animal-free reagent and laboratory          Manufactured and tested under GMP guideline</p>
<b>Sequence</b>	<p>MYFGKLESKLSVIRNLNDQVLFIDQGNRPLFEDMTDSDCRDNAPRTIFIISMYKD          SQPRGMAVTISVKCEKISTLSCENKIISFKEMNPPDNIKDTKSDIIFQRSVPGHD          NKMQFESSYEGYFLACEKERDLFKLILKKEDELGDRSIMFTVQNED with          polyhistidine tag at the C-terminus</p>
<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 IFN gamma secretion in KG-1 cells. The ED <sub>50</sub> for this effect is <6 ng/mL.
<b>Purity</b>	<p>&gt;98% as determined by SDS-PAGE analysis.          Purified by Ni-NTA chromatography.</p>
<b>Mycoplasma</b>	Negative when tested by PCR detection method.
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of 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.

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**Note** Please use within one month after protein reconstitution.

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**Specification** Croyez GMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP-certified facility. The processes include:

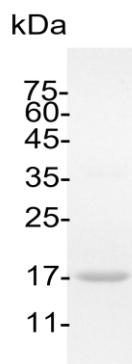
- Testing and traceability of raw material
- Records of the maintenance and equipment calibration
- Personnel training records
- Batch-to-batch consistency
- Documentation of QA control and process changes
- Manufactured and tested under an ISO 13485:2016 certified quality management system
- Stability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

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**Reference**

1. Takahashi HK. et al. (2004) *Clin Immunol.* 12: 30-4.
2. Dinarello CA. et al. (2013) *Front Immunol.* 4: 289.
3. Son YI. et al. (2001) *Cancer Res.* 61,3: 884-8.
4. Fukao T. et al. (2000) *J Immunol.* 164: 64-71.
5. Kaplanski G. (2018) *Immunol Rev.* 281,1: 138-153.

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SDS-PAGE analysis of GMP® IL-18, Human

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