

PRODUCT INFORMATION

GMP® Human IL-18 Protein, Tag Free, E. coli

v. 250301

Catalog number	C01192-GMP-100 / C01192-GMP-1000
Package	100 µg / 1 mg
Description	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.
Species of Origin	Human
Expression System	<i>Escherichia coli</i>
Sequence	Tyr37-Asp193
Endotoxin level	<0.05 EU per 1 µg of the protein by the LAL method.
Activity	Measure by its ability to induce IFN gamma secretion in KG-1 cells. The ED ₅₀ for this effect is <6 ng/mL. The specific activity of recombinant human IL-18 is > 1 x 10 ⁷ IU/mg, which is calibrated against the human IL-18 WHO International Standard (NIBSC code: 03/200).
Purity	>95% as determined by SDS-PAGE analysis.
Mycoplasma	Not detected
Form	Lyophilized
Storage Buffer	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile H ₂ O to a concentration not less than 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
Stability & Storage	This product is stable after storage at:

-
- -20°C for 12 months in lyophilized state from date of receipt.
 - -20°C or -80°C for 1 month under sterile conditions after reconstitution.

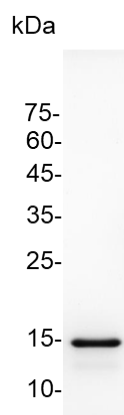
Avoid repeated freeze/thaw cycles.

Manufacturing Specifications

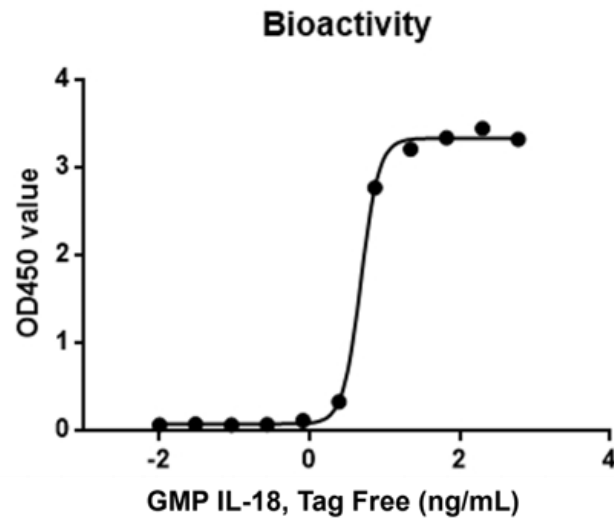
Croyez GMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP-certified facility. The processes include:

- Animal-free reagent and laboratory
 - Manufactured and tested under GMP guideline
 - 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
-

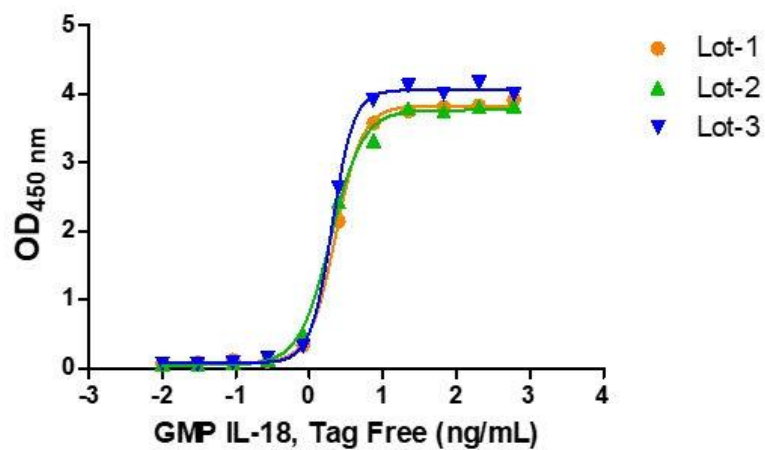
Data



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



Measure by its ability to induce IFN gamma secretion in KG-1 cells. The ED₅₀ for this effect is < 6 ng/ mL. The specific activity of recombinant human IL-18 is > 1 x 10⁷ IU/ mg.



To demonstrate lot-to-lot consistency of GMP IL-18, the activity of three separate lots was examined and plotted on the same graph.

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