

# LeadGMP® Human IL-10 Protein, His Tag, E. coli

Catalog Number LDG008PHE-GMP

Package 100 μg / 1 mg / Customized package

For full product information, images and publications, please visit our website.



# **Specifications**

**Species of Origin** 

Human

**Affinity Tag** 

His Tag (C-term)

**Purity** 

>98% as determined by SDS-PAGE analysis.

**Activity** 

Measure by its ability to induce MC/9-2 cells proliferation. The ED $_{50}$  for this effect is <1 ng/mL. The specific activity of recombinant human IL-10 is approximately >1 x10 $^{6}$  IU/ mg.

Mycoplasma

Not detected

**Expression system** 

Escherichia coli

**Buffer** 

Lyophilized from a 0.2  $\mu m$  filtered solution of PBS, pH 8.0.

Molecular weight

The protein has a calculated MW of 19.6 kDa. The protein migrates as 20 kDa under reducing condition (SDS-PAGE analysis).

**Endotoxin level** 

<0.05 EU per 1  $\mu g$  of the protein by the LAL method.

**Form** 

Lyophilized

**Background** 



# **Background**

Interleukin-10 (IL-10), also known as human cytokine synthesis inhibitory factor (CSIF), is an anti-inflammatory cytokine. Many different types of cells can produce IL-10, including immune cells and non-immune cells. IL-10 exerts inhibitory functions on DCs and macrophages, which is a potent inhibitor of antigen presentation and limit the production of the Th1associated cytokines IL-2 and interferon-y (IFN-y). IL-10 is also a key immunoregulator during infection due to its inhibitory effect on inflammatory cytokine production. Consequently, the excessive Th1 and CD8+ T cell responses could be suppressed during infection.

# **Synonyms**

Interleukin-10, Cytokine synthesis inhibitory factor, CSIF

#### **Uniprot ID**

P22301

#### **Sequence Note**

Ser19-Asn178

# Instruction

#### Reconstitution

It is recommended to reconstitute the lyophilized protein in sterile H<sub>2</sub>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.

#### Shipping

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.



# **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.

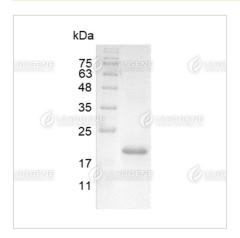
Avoid repeated freeze/thaw cycles.

#### **Manufacturing specifications**

LeadGMP® 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

# **Image**



SDS-PAGE analysis of LeadGMP® IL-10, Human

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