

## **Synonym**

CXCL8,GCP1,IL8,LECT,LUCT,LYNAP,MDNCF,MONAP,NAF,NAP-1

#### Source

Human IL-8 Protein, premium grade(IL8-H5217) is expressed from human 293 cells (HEK293). It contains AA Ser 28 - Ser 99 (Accession # P10145-1). Predicted N-terminus: Ser 28

Human IL-8 Protein, premium grade (IL8-H5217), designed for preclinical stage, has the same activity and performance with GMP Human IL-8 Protein, which enables a seamless transition from preclinical development to clinical phases. Premium Grade product offer a cost efficient alternative of GMP Grade products for the early development phase when safety of raw materials is not top priority. By using Premium Grade products in early development phase, you can transition easily into clinical and commercial phase without need to revalidate the raw materials and modify manufacturing process.

# **Molecular Characterization**

IL-8(Ser 28 - Ser 99) P10145-1

This protein carries no "tag".

The protein has a calculated MW of 8.4 kDa. The protein migrates as 9 kDa±3 kDa under reducing (R) condition, and 11 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than  $0.01\ EU$  per  $\mu g$  by the LAL method.

# **Host Cell Protein**

<0.5 ng/µg of protein tested by ELISA.

## **Host Cell DNA**

<0.02 ng/μg of protein tested by qPCR.

# **Sterility**

Negative

### Mycoplasma

Negative.

### **Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

#### **Formulation**

Lyophilized from  $0.22~\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### **Storage**

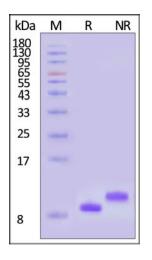
For long term storage, the product should be stored at lyophilized state at -20 $^{\circ}$ C or lower.

Please avoid repeated freeze-thaw cycles.

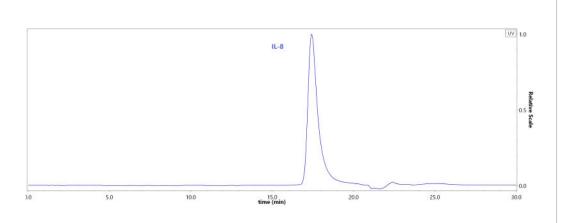
This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**



# SEC-HPLC





# Human IL-8 / CXCL8 Protein, premium grade

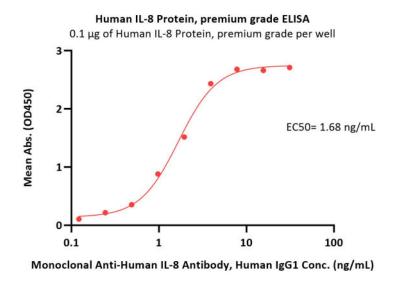
Catalog # IL8-H5217



Human IL-8 Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

The purity of Human IL-8 Protein, premium grade (Cat. No. IL8-H5217) was greater than 90% as determined by SEC-HPLC.

## **Bioactivity-ELISA**



Immobilized Human IL-8 Protein, premium grade (Cat. No. IL8-H5217) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-Human IL-8 Antibody, Human IgG1 with a linear range of 0.1-4 ng/mL (QC tested).

## **Background**

Interleukin 8 (IL8 or chemokine (C-X-C motif) ligand 8, CXCL8) is a chemokine produced by macrophages and other cell types such as epithelial cells, airway smooth muscle cells and endothelial cells. There are many receptors on the surface membrane capable of binding IL-8, the most frequently studied types are the G protein-coupled serpentine receptors CXCR1 and CXCR2. Expression and affinity for IL-8 differs between the two receptors (CXCR1 > CXCR2). IL-8(6-77) has a 5-10-fold higher activity on neutrophil activation, IL-8(5-77) has increased activity on neutrophil activation and IL-8(7-77) has a higher affinity to receptors CXCR1 and CXCR2 as compared to IL-8(1-77), respectively.

# **Clinical and Translational Updates**

