

# Human CCL4, Tag Free, E. coli

Catalog Number LDG166PHE

Package 5  $\mu g$  / 20  $\mu g$  / 100  $\mu g$  / Customized package

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



### **Specifications**

**Species of Origin** 

Human

**Affinity Tag** 

Tag Free

**Purity** 

>98% as determined by SDS-PAGE analysis.

**Activity** 

Measure by its ability to chemoattract BaF3 cells transfected with human CCR5. The ED $_{50}$  for this effect is <10 ng/mL.

**Form** 

Lyophilized

**Expression system** 

Escherichia coli

**Buffer** 

Lyophilized from a 0.2 µm filtered solution containing 50 mM Tris and 150 mM NaCl, pH 8.5.

Molecular weight

The protein has a calculated MW of 7.75 kDa. The protein migrates as 11 kDa under reducing condition (SDS-PAGE analysis).

**Endotoxin level** 

<0.1 EU per 1  $\mu g$  of the protein by the LAL method.

Background



#### **Background**

C-C Motif Chemokine Ligand 4 (CCL4) is a 7.66 kDa cytokine with 69 amino acid residues. CCL4, also named macrophage inflammatory protein-1β (MIP-1β), is mainly secreted from neutrophils, monocytes, B cells, T cells, fibroblasts, endothelial cells and epithelial cells. CCL4 recruits various immune cells like natural killer cells, monocytes, and neutrophils when CCL4 binds to CCR5. In addition, CCL4 mediates lymphocyte adhesion by Rac1 /Cdc42 signaling pathway and plays critical roles in different biological functions like maintenance of cell polarity, regulation of calcium ion transport and response to viruses.

#### **Synonyms**

Lymphocyte activation gene 1 protein, LAG-1, Macrophage inflammatory protein 1-beta, MIP-1beta, Monocyte adherence-induced protein 5alpha, Small-inducible cytokine A4-like, C-C motif chemokine 4-like

#### **Uniprot ID**

#P13236

#### **Sequence Note**

Ala24-Asn92

#### Instruction

#### Reconstitution

It is recommended to reconstitute the lyophilized protein in sterile  $H_2O$  to a concentration not less than 200  $\mu$ g/mL and incubate the stock solution for at least 20 min to ensure sufficient redissolved.

### Stability & Storage

This product is stable after storage at:

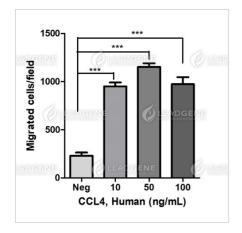
- -20°C for 12 months in lyophilized state from date of receipt.
- -20°C or -80°C for 1 month under sterile conditions after reconstitution.

Avoid repeated freeze/thaw cycles.

#### **Shipping**

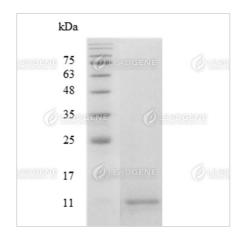
The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.

## **Image**



Measure by its ability to chemoattract human THP1 cells using a concentration range of 10-100 ng/mL. Activity analysis of recombinant

Human CCL4, Tag Free, E. coli.



SDS-PAGE analysis of recombinant human CCL4.

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