

# Human SLPI Protein (His Tag)

Catalog Number: 10343-H08B



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

ALK1; ALP; BLPI; HUSI; HUSI-I; MPI; WAP4; WFDC4

### Protein Construction:

A DNA sequence encoding the human SLPI (P03973)( Met1-Ala132) was expressed, with a C-terminal polyhistidine tag.

**Source:** Human

**Expression Host:** Baculovirus-Insect Cells

## QC Testing

**Purity:** ≥ 90 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

### Bio Activity:

**Measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK (Dnp)-NH<sub>2</sub> (Catalog # ES002). The IC<sub>50</sub> value is**

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Ser 26

### Molecular Mass:

The secreted recombinant human SLPI consists of 118 amino acids and predicts a molecular mass of 13.17 KDa. The apparent molecular mass of the protein is approximately 15 KDa in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% gly, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

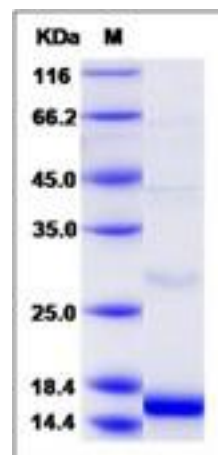
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Secretory leukoprotease inhibitor (SLPI), also called antileukoprotease (ALP), is a 12-kDa, nonglycosylated serine protease inhibitor present in mucous secretions. It is thought to play a role in protecting the mucosae from injury associated with inflammation. SLPI is locally produced by serous cells, including bronchial submucosal glands. Elafin and SLPI are members of larger families of proteins secreted predominantly at mucosal sites, and have been shown to be modulated in multiple pathological conditions. Elafin and SLPI are structurally related in that both have a fold with a four-disulfide core or whey acidic protein (WAP) domain responsible for inhibiting proteases. SLPI is a prominent innate immune protein of the respiratory tract, possessing serine protease inhibitor activity, antibacterial activity, and anti-inflammatory/immunomodulatory activity.

## References

1. Moreau T, *et al.* (2008) Multifaceted roles of human elafin and secretory leukocyte proteinase inhibitor (SLPI), two serine protease inhibitors of the chelonianin family. *Biochimie.* 90(2): 284-95.
2. Weldon S, *et al.* (2007) Innate host defense functions of secretory leucoprotease inhibitor. *Exp Lung Res.* 33(10): 485-91.
3. Williams SE, *et al.* (2006) SLPI and elafin: one glove, many fingers. *Clin Sci (Lond).* 110(1): 21-35.

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