

SLPI Protein, Human, Recombinant (His)

General Information

Synonyms:	HUSI;WFDC4;ALK1;HUSI-I;MPI;BLPI;ALP;WAP4
Protein Construction:	A DNA sequence encoding the human SLPI (P03973)(Met1-Ala132) was expressed, with a C-terminal polyhistidine tag.
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	P03973
Molecular Weight:	13.17 kDa (predicted); 15 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK (Dnp)-NH ₂ (Catalog # ES002).The IC ₅₀ value is <1 nM.
Purity:	≥ 90% as determined by SDS-PAGE. ≥ 95% as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from sterile 20 mM Tris, 500 mM NaCl, 10% gly, pH 7.4. Please contact us for any concerns or special requirements. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA.

Preparation and Storage

Reconstitution:

Please refer to the lot-specific COA.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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

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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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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