

## Serpin A4 Protein, Human, Recombinant (His)

### General Information

Synonyms:	Kallistatin;Peptidase Inhibitor 4;KST;Kallikrein Inhibitor;Serpin A4;SERPINA4;PI-4;PI4
Protein Construction:	Gln21-Pro427
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P29622
Molecular Weight:	60-80 KDa (reducing condition)
AA Sequence:	Gln21-Pro427

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris-HCl, 10 mM CaCl <sub>2</sub> , 150 mM NaCl, pH 8.0.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

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

Serpin Peptidase Inhibitor, Clade A (α-1 Antiproteinase, Antitrypsin), Member 4 (Serpin A4) is a member of the Serpin family. Serpin A4 exists as a monomer and some homodimers. Serpin A4 is expressed by the liver and secreted in plasma. Serpin A4 is a regulator of vascular homeostasis capable of controlling a wide spectrum of biological actions in the cardiovascular and renal systems. It can inhibit intracellular reactive oxygen species formation in cultured cardiac and renal cells. In addition, Serpin A4 has anti-inflammatory effect. Heparin blocks

kallistatin's complex formation with tissue kallikrein and abolishes its inhibitory effect on tissue kallikrein's activity.

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