

## Serpin I2 Protein, Human, Recombinant (His)

### General Information

Synonyms:	PI14;TSA2004;PANCPIN;MEPI;Serpin I2;serpin peptidase inhibitor, clade I (pancpin), member 2
Protein Construction:	A DNA sequence encoding the human SERPINI2 (NP_006208.1) (Met 1-Leu 405) was expressed, with a polyhistidine tag at the C-terminus. Predicted N terminal: Ser 19
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O75830
Molecular Weight:	45.5 kDa (predicted); 45-55 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

#### 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

Serpins are the largest and most diverse family of serine protease inhibitors which are involved in some fundamental biological processes such as blood coagulation, complement activation, fibrinolysis, angiogenesis, inflammation and tumor suppression and are expressed in a cell-specific manner. Serpins are a group of proteins with similar structures that were first identified as a set of proteins able to inhibit proteases. The acronym serpin

was originally coined because many serpins inhibit chymotrypsin-like serine proteases (serine protease inhibitors). Over 1 serpins have been identified. Serpin-I2, also known as myoepithelium-derived serine protease inhibitor, Pancreas-specific protein TSA24, Peptidase inhibitor 14, PI14, SERPINI2 and MEPI, is a secreted protein that belongs to the serpin family. It is expressed in pancreas and adipose tissues. SERPINI2 deficiency directly results in the acinar cell apoptosis and malabsorption.

### Reference

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