

Serpin A10 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 10;ZPI; serpin peptidase inhibitor, clade A (α -1 antiproteinase, antitrypsin), member 10;Serpin A10; PZI
Protein Construction:	A DNA sequence encoding the mature form of mouse SERPINA10 isoform 1 (Q8R121-1) (Met 1-Leu 448) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Phe 22
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q8R121-1
Molecular Weight:	51 kDa (predicted); 60-80 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:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m 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

Protein Z-dependent protease inhibitor, also known as PZ-dependent protease inhibitor, SERPINA1 and ZPI, is a secreted protein that belongs to the serpin family. It is expressed by the liver and secreted in plasma. SERPINA1 / Serpin-A1 inhibits factor Xa activity in the presence of protein Z, calcium and phospholipid. 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 now been identified, these include 36 human proteins, as well as molecules in plants, fungi, bacteria, archaea and certain viruses. Serpins are the largest and most diverse family of protease inhibitors. Most serpins control proteolytic cascades, certain serpins do not inhibit enzymes, but instead perform diverse functions such as storage (ovalbumin, in egg white), hormone carriage proteins (thyroxine-binding globulin, cortisol-binding globulin) and tumor suppressor genes (maspin). Most inhibitory serpins target chymotrypsin-like serine proteases. These enzymes are defined by the presence of a nucleophilic serine residue in their catalytic site. Some serpins inhibit other classes of protease. A number of such serpins have been shown to target cysteine proteases. These enzymes differ from serine proteases in that they are defined by the presence of a nucleophilic cysteine residue, rather than a serine residue, in their catalytic site.

Reference

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