

Mouse SerpinA10 / ZPI Protein (His Tag)

Catalog Number: 50315-M08H



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Biological Solution Specialist

General Information

Gene Name Synonym:

PZI; ZPI; PZI; ZPI

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.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

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: Phe 22

Molecular Mass:

The secreted recombinant mouse SERPINA10 comprises 438 amino acids with a predicted molecular mass of 51 kDa. As a result of glycosylation, the apparent molecular mass of the protein is approximately 60-80 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, 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:

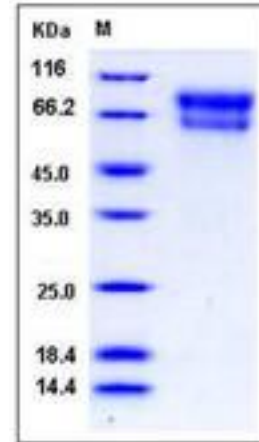
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Mouse protein Z-dependent protease inhibitor, also known as PZ-dependent protease inhibitor, SERPINA10 and ZPI, is a secreted protein which belongs to the serpin family. It is expressed by the liver and secreted in plasma. SERPINA10 / Serpin-A10 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 1000 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.

References

1. Han X, et al., 1998, Proc Natl Acad Sci. USA 95: 9250-5.
2. Han X, et al., 2000, Blood 96: 3049-55.
3. Irving JA, et al., 2000, Genome Res. 10 (12): 1845-64.

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