



# Recombinant Protein Technical Manual

## Recombinant Mouse SerpinA10/ZPI Protein (His Tag)

RPES2945

### Product Data:

**Product SKU:** RPES2945

**Size:** 20µg

**Species:** Mouse

**Expression host:** HEK293 Cells

**Uniprot:** Q8R121

### Protein Information:

**Molecular Mass:** 51 kDa

**AP Molecular Mass:** 60-80 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** PZI;ZPI

## Immunogen Information:

**Sequence:** Met 1-Leu 448

## Background:

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.