



# Recombinant Protein Technical Manual

## Recombinant Human Vaspin/SerpinA12 Protein (His Tag)(Active)

RPE55175

### Product Data:

**Product SKU:** RPE55175

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_776249.1

### Protein Information:

**Molecular Mass:** 46.5 kDa

**AP Molecular Mass:** 50-55 kDa

**Tag:** C-His

**Bio-activity:** Measured by its ability to inhibit KLK7 cleavage the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH<sub>2</sub> (Catalog # ES002). The IC<sub>50</sub> is <75 nM.

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg 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:** Serpin A12; OL-64; Visceral Adipose Tissue-Derived Serine Protease Inhibitor; Vaspin; Visceral Adipose-Specific Serpin; SERPINA12

## Immunogen Information:

**Sequence:** Met 1-Lys 414

## Background:

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. SerpinA12, also known as OL-64, Visceral adipose tissue-derived serine protease inhibitor, Vaspin, Visceral adipose-specific serpin and SERPINA12, is a secreted protein which belongs to the serpin family. SerpinA12 / Vaspin is expressed in visceral adipose tissues. It may modulates insulin action conceivably only in the presence of its yet undefined target proteases in white adipose tissues. SerpinA12 / Vaspin may be the compensatory molecule in the pathogenesis of metabolic syndrome and SerpinA12 / Vaspin recombinant protein or vaspin-mimicking agents such as vaspin analogs, antibodies or small molecule agents may be the link to drug discovery and development.