

**Recombinant Human Vaspin**  
**Catalog # PBG10468****Specification**

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**Recombinant Human Vaspin - Product Information****Recombinant Human Vaspin - Additional Information****Description**

Vaspin is a newly described adipocytokine expressed predominantly in visceral white adipose tissues. Structure analysis of Vaspin predicts the presence of three  $\beta$ -sheets, nine  $\alpha$ -helices, and one central loop, which are distinctive structural features of Serpin family members. The serpins are irreversible ("suicidal") serine-protease inhibitors, characterized by having more than 30% sequence homology with  $\alpha$ 1-antitrypsin and a conserved tertiary structure, which contains an exposed reactive center loop that acts as a pseudo-substrate for the target proteinase. Members of this family play an important role in a number of fundamental biological processes including blood coagulation, fibrinolysis, complement activation, angiogenesis, inflammation, and tumor suppression. In human, the serpins represent approximately 2% of total serum proteins, of which 70% is  $\alpha$ 1- antitrypsin. Vaspin exhibits 40.2% sequence identity with  $\alpha$ -1-antitrypsin. Yet, its protease inhibitory activity is still unknown. Vaspin mRNA expression in visceral fat is positively correlated with BMI and percent of body fat. Administration of Vaspin to obese mice improved glucose tolerance and insulin sensitivity, reflected by normalized blood glucose levels. It also led to the reversal of altered expression of diabetes-relevant adipocytokines including leptin, adiponectin, resistin, and TNF- $\alpha$ . These findings suggest a potential clinical use for Vaspin in ameliorating certain aberrations seen in the diabetic/obesity metabolic syndrome. Recombinant human Vaspin is a 45.2 kDa protein containing 395 amino-acid residues.

**BiologicalActivity**

Data Not Available.

**Authenticity**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**Endotoxin**

Endotoxin level is <0.1 ng/  $\mu$ g of protein (<1EU/  $\mu$ g).

**Protein Content**

Verified by UV Spectroscopy and/or SDS-PAGE gel.

**Storage**

-20°C

**Precautions**

Recombinant Human Vaspin is for research use only and not for use in diagnostic or therapeutic procedures.

**Recombinant Human Vaspin - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **Recombinant Human Vaspin - Images**