



# Recombinant Protein Technical Manual

## Recombinant Human SerpinA5/SERPINA5 Protein (His Tag) RPES4574

### Product Data:

**Product SKU:** RPES4574

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P05154

### Protein Information:

**Molecular Mass:** 44.7 kDa

**AP Molecular Mass:** 45 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % 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 a 0.2 µm filtered solution of 20mM MES, 150mM NaCl, pH 5.5.

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

**Application:**

**Synonyms:** Plasma Serine Protease Inhibitor; Acrosomal Serine Protease Inhibitor; Plasminogen Activator Inhibitor 3; PAI-3; PAI3; Protein C Inhibitor; PCI; Serpin A5; SERPINA5; PCI; PLANH3; PROC1

## Immunogen Information:

**Sequence:** His20-Pro406

## Background:

Serpin A5 is a member of the human Serpin superfamily consists of at least 35 members. It is synthesized in the liver and has been detected in saliva, cerebral spinal fluid, amniotic fluid, tears and semen. As a potent inhibitor of the protein C anticoagulant pathway at the levels of both zymogen activation and enzyme inhibition, Serpin A5 additionally inhibits a variety of serine protease including thrombin, factor Xa, several kallekreins and acrosin. It plays a critical role in the processes of blood of blood coagulation and fertilization. Serpin A5 also inhibits urinary plasminogen activator (uPA), a mediator of tumor cell invasion, and regulates tumor growth and metastasis by inhibiting angiogenesis. Furthermore, recent studies have identified PCI as a potent and direct inhibitor of activated HGFA (hepatocyte growth factor activator), suggesting a novel function in the regulation of tissue repair and regeneration. Similar to Serpins C1 and D1, the thrombin inhibitory activity of serpinA5 is enhanced by heparin.