Recombinant IPSP protein (His tag)

Catalog Number	546682
Synonyms	Acrosomal serine protease inhibitor; Plasminogen activator inhibitor 3; PAI-3; PAI3; Protein C inhibitor; PCI; Serpin A5
Species	Human
Expression System	E. coli
Accession	P05154
Molecular Weight	Predictes a molecular mass of 42.28 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	46-406
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 46-406 aa (P05154) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human SERPINA5 (aa 46-406) is a high-purity, stable fragment of Plasma serine protease inhibitor (Serpin A5), designed for structural and biochemical studies. This 361-amino acid fragment retains key functional characteristics, offering researchers a reliable tool to investigate serine protease inhibition mechanisms in hemostasis, reproduction, and cancer biology. The full-length SERPINA5 protein, also known as Protein C inhibitor or Serpin A5, is a heparin-dependent serine protease inhibitor that plays critical roles in regulating proteolytic activities in body fluids and secretions. It functions as both a procoagulant and anticoagulant factor in blood plasma by modulating activated protein C and other coagulation factors. In seminal plasma, it controls reproductive processes by inhibiting acrosin, plasminogen activators, and kallikrein activities, thereby protecting male genital tract components and regulating sperm motility and fertilization. The protein is secreted into extracellular spaces and localizes to specific regions of spermatozoa and platelet membranes, where it also demonstrates non-inhibitory functions as a hydrophobic hormone carrier for retinoic acid. Its involvement in inhibiting tumor cell invasion and metastasis further highlights its biomedical significance.