

Serpin A5 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	Serpin A5;Serpina5;Plasma serine protease inhibitor;Pci;Plasminogen activator inhibitor 3 (PAI-3;PAI3);Protein C inhibitor (PCI)
Protein Construction:	25-405 aa
Species:	Mouse
Expression Host:	Baculovirus Insect Cells
Accession:	P70458
Molecular Weight:	45.3 kDa (predicted)
AA Sequence:	SKKKKAKESSVGA VGPPSSKDFAFRLYRALVSESPGQNVFFSPLSVMSLGM LSLGAGLKTKTQILDGLG LSL QQGQEDKLHKGFQQLLQRFRQPSDGLQLSLGSALFKDPAVHIRDDFLSAMKTLYMSDTFSTNFGNPEIAKKQ INNYVAKQTKGKIVDFIKDL DSTHVMIVVNYIFFKAKWQTA FSETNTHKMDFHVTPKRRTTQVPM MNREDGYS YYLDQNISCTVVGIPYQGN AIALFILPSEGKMKQVEDGLDERTLRNWLKMFTKRRLDLYLPKFSIEATYKLENVL PKLGIQDVFTTHADLSGITDHTNIK LSEM VHKSMMEVEESGTTAAAITGAIFFRSARPS LKIEFTRPFL LTLME DSHILFVGKVTRP

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Heparin-dependent serine protease inhibitor acting in body fluids and secretions. Inactivates serine proteases by

binding irreversibly to their serine activation site. Involved in the regulation of intravascular and extravascular proteolytic activities. Plays hemostatic roles in the blood plasma. Acts as a procoagulant and proinflammatory factor by inhibiting the anticoagulant activated protein C factor as well as the generation of activated protein C factor by the thrombin/thrombomodulin complex. Acts as an anticoagulant factor by inhibiting blood coagulation factors like prothrombin, factor XI, factor Xa, plasma kallikrein and fibrinolytic enzymes such as tissue- and urinary-type plasminogen activators. In seminal plasma, inactivates several serine proteases implicated in the reproductive system. Inhibits the serpin acrosin; indirectly protects component of the male genital tract from being degraded by excessive released acrosin. Inhibits tissue- and urinary-type plasminogen activator, prostate-specific antigen and kallikrein activities; has a control on the sperm motility and fertilization. Inhibits the activated protein C-catalyzed degradation of SEMG1 and SEMG2; regulates the degradation of semenogelin during the process of transfer of spermatozoa from the male reproductive tract into the female tract. In urine, inhibits urinary-type plasminogen activator and kallikrein activities. Inactivates membrane-anchored serine proteases activities such as MPRSS7 and TMPRSS11E. Inhibits urinary-type plasminogen activator-dependent tumor cell invasion and metastasis. May also play a non-inhibitory role in seminal plasma and urine as a hydrophobic hormone carrier by its binding to retinoic acid.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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