

Recombinant Human SERPINE1 Protein

Cat. No. SERPINE1-5509H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	SERPINE1 was expressed in E. coli, with a molecule weight of 113.0 kDa.
Species	Human
Source	E.coli
Description	SERPINE1 also known as endothelial plasminogen activator inhibitor or serpin E1 is a protein that in humans is encoded by the SERPINE1 gene. SERPINE1 is a serine protease inhibitor (serpin) that functions as the principal inhibitor of tissue plasminogen activator (tPA) and urokinase (uPA), the activators of plasminogen and hence fibrinolysis (the physiological breakdown of bloodclots). It is a serine protease inhibitor (serpin) protein (SERPINE1). The other PAI, plasminogen activator inhibitor-2 (PAI-2) is secreted by the placenta and only present in significant amounts during pregnancy. In addition, protease nexin acts as an inhibitor of tPA and urokinase. PAI-1, however, is the main inhibitor of the plasminogen activators.
Molecule Weight	113.0 kDa
Form	Liquid in 0.4 M HEPES + 0.1 M NaCl, pH 7.4.
Concentration	1.0 mg/ml
Storage	Store in working aliquots at -80°C. Avoid repeated freeze-thaw cycles.
Official Symbol	SERPINE1

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Pathways

Adipogenesis; BMAL1:CLOCK/NPAS2 Activates Gene Expression; Blood Clotting Cascade; Complement and Coagulation Cascades; Dissolution of Fibrin Clot; E2F transcription factor network; HIF-2-alpha transcription factor network; Platelet activation; Platelet degranulation; Regulation of nuclear SMAD2/3 signaling; Response to elevated platelet cytosolic Ca²⁺; Selenium Pathway; Senescence and Autophagy; TGF Beta Signaling Pathway; p53 signaling pathway

GENE INFORMATION
Gene Name

SERPINE1 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1 [Homo sapiens]

Synonyms

SERPINE1; serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1; PAI; PAI1; PAI-1; PLANH1; plasminogen activator inhibitor 1; serpinE1; OTTHUMP00000211478; endothelial plasminogen activator inhibitor; serine(or cysteine) proteinase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1

Gene ID

5054

mRNA Refseq

NM_000602

Protein Refseq

NP_000593

MIM

173360

UniProt ID

P05121

Chromosome Location

7q21.3-q22

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Function

peptidase inhibitor activity; protease binding; protein binding; contributes to receptor binding; serine-type endopeptidase inhibitor activity

**PAI-1 in complex with
the SMB domain of
Vitronectin PDB
1OC0.**

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