

Recombinant Human Serpin Peptidase Inhibitor, Clade E (nexin, plasminogen activator inhibitor type 1), Member 1, His-tagged

Cat. No. SERPINE1-5506H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human SERPINE1 containing four mutations that stabilize the activity of PAI-1. The N-terminus has been modified with a 6xHis tag, which allows for the immobilization of functionally active PAI-1 onto surfaces such as metal chelate microtiter plates or Ni ²⁺ resins.
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	43.0 kDa
Form	Frozen liquid in 0.05 M sodium phosphate + 0.1 M NaCl + 1 mM EDTA, pH 6.6.

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Concentration	2.5 mg/ml
Storage	Store in working aliquots at -80°C. Avoid repeated freeze-thaw cycles.
Official Symbol	SERPINE1
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 Ca ²⁺ ; 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

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UniProt ID	P05121
Chromosome Location	7q21.3-q22
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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