

Recombinant Rat Serpin Peptidase Inhibitor, Clade E (nexin, plasminogen activator inhibitor type 1), Member 1

Cat. No. Serpine1-5516R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant RatSerpine1 typically contains 95% active PAI-1.
Species	Rat
Source	E.coli
Description	Serpine1 is a serineprotease 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. Serpine1, however, is the main inhibitor of the plasminogen activators.
Form	Liquid in 0.05 M sodium acetate + 0.4 M NaCl + 1 mM EDTA, pH 5.0.
Molecular Weight	43.0 kDa
Storage	Store in working aliquots at -80°C. Avoid repeated freeze-thaw cycles.
Official Symbol	Serpine1
Pathways	Adipogenesis; Blood Clotting Cascade; Chagas disease (American trypanosomiasis); Complement and Coagulation Cascades; Dissolution of Fibrin Clot; Hemostasis;

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Plateletactivation; Platelet degranulation; Response to elevated platelet cytosolicCa²⁺; Senescence and Autophagy; TGF Beta Signaling Pathway; p53 pathway; p53signaling pathway

GENE INFORMATION

Gene Name	Serpine1 serpin peptidaseinhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1[Rattus norvegicus]
Synonyms	Serpine1; serpinpeptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1),member 1; Pai1; PAI1A; Planh; Pai1aa; RATPAI1A; plasminogen activatorinhibitor 1; PAI; PAI-1; serpin E1; endothelial plasminogen activator inhibitor;serine (or cysteine) proteinase inhibitor, member 1; serine (or cysteine)peptidase inhibitor, clade E, member 1; serine (or cysteine) proteinaseinhibitor, clade E, member 1; serine (or cysteine) proteinase inhibitor,clade E (nexin, plasminogen activator inhibitor type 1), member 1
Gene ID	24617
mRNA Refseq	NM_012620
Protein Refseq	NP_036752
UniProt ID	P20961
Chromosome Location	12q11-q12
Function	peptidase inhibitoractivity; protease binding; receptor binding; contributes to receptorbinding; serine-type endopeptidase inhibitor activity
PAI-1 in complexwith	

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