

Datasheet for ABIN7197367
PAI1 Protein (His tag)



[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	PAI1 (SERPINE1)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This PAI1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human SerpinE1/PAI-1 Protein (His Tag)(Active)
Sequence:	Met 1-Pro 402
Characteristics:	A DNA sequence encoding the human SerpinE1 precursor (NP_000593.1) (Met 1-Pro 402) was expressed with a C-terminal polyhistidine tag.
Purity:	> 97 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to inhibit uPA cleavage of a peptide substrate, N-carbobenzyloxy-Gly-Gly-Arg-7-amido-4-methylcoumarin (Z-GGR-AMC). The IC50 value is < 60 nM.

Target Details

Target:	PAI1 (SERPINE1)
---------	-----------------

Target Details

Alternative Name: SerpinE1/PAI-1 ([SERPINE1 Products](#))

Background: Plasminogen activator inhibitor 1, also known as PAI-1, Endothelial plasminogen activator inhibitor, SerpinE1 and PLANH1, is a secreted glycoprotein which belongs to the serpin family. SerpinE1 is the primary physiological inhibitor of the two plasminogen activators urokinase (uPA) and tissue plasminogen activator (tPA). Its rapid interaction with TPA may function as a major control point in the regulation of fibrinolysis. Defects in SerpinE1 are the cause of plasminogen activator inhibitor-1 deficiency (PAI-1 deficiency) which is characterized by abnormal bleeding due to SerpinE1 defect in the plasma. High concentrations of SerpinE1 have been associated with thrombophilia which is an autosomal dominant disorder in which affected individuals are prone to develop serious spontaneous thrombosis. Studies of PAI-1 have contributed significantly to the elucidation of the protease inhibitory mechanism of serpins, which is based on a metastable native state becoming stabilised by insertion of the RCL into the central beta-sheet A and formation of covalent complexes with target proteases. Greater expression of PAI-1 has been associated with increased survival of cells and resistance to apoptosis. PAI-1 appears to influence apoptosis by decreasing cell adhesion (anoikis) as well as its effect on intracellular signaling. PAI-1, in its active state, also binds to the extracellular protein vitronectin. When in complex with its target proteases, it binds with high affinity to endocytosis receptors of the low density receptor family. The mechanisms of PAI-1 overexpression during obesity are complex, and it is conceivable that several inducers are involved at the same time at several sites of synthesis. PAI-1 is also implicated in adipose tissue development. It suggests that PAI-1 inhibitors serve in the control of atherothrombosis. Synonym: Plasminogen Activator Inhibitor 1, PAI, PAI-1, Endothelial Plasminogen Activator Inhibitor, Serpin E1, SERPINE1, PAI1, PLANH1, SERPINE1

Molecular Weight: 44.2 kDa

NCBI Accession: [NP_000593](#)

Pathways: [p53 Signaling](#), [Cellular Response to Molecule of Bacterial Origin](#), [Carbohydrate Homeostasis](#), [Autophagy](#), [Smooth Muscle Cell Migration](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Handling

Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 50 mM NaAc, 0.1M NaCl, pH 5.5
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.