

Human PAI-1 / Serpin E1

Synonyms: Plasminogen Activator Inhibitor-1, Serpin E1

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
5 µg	1797.950.002		
25 µg	1797.950.010		
1 mg	1797.950.199		

Please enquire for bulk quantities and other vial sizes

Description

Plasminogen Activator Inhibitor-1 (PAI-1, Serpin E1) is a member of the serpin family of serine protease inhibitors, and is the primary inhibitor of urokinase and tissue plasminogen activator (tPA). PAI-1 is expressed predominantly in adipose, liver and vascular tissues, and is also produced by certain tumor cells. Elevated levels of PAI-1 are associated with obesity, diabetes and cardiovascular disease, and increased production of PAI-1 is induced by various obesity related factors such as TNF α , glucose, insulin, and very-low-density lipoprotein. The obesity related elevation of PAI-1 levels along with the consequential deficiency in plasminogen activators can lead directly to increased risk of thrombosis and other coronary diseases. Accordingly, PAI-1 has been implicated as an important molecular link between obesity and coronary disease. PAI-1 can also specifically bind vitronectin (VTN) to form a stable active complex with an increased circulatory half life relative to free PAI-1. Recombinant human PAI-1 is a 42.7 kDa protein containing 379 amino acid residues.

- **Source** *E. Coli*
- **Purity** $\geq 95\%$ (SDS-PAGE)
- **Endotoxin level** < 0.1 ng/ μ g of protein (
- **Buffer** Sodium Acetate (50mM pH 5,5), NaCl (0,1 M), 10% Glycerol*

Biological Activity

The IC₅₀ of < 3.0 nM was determined by its inhibitory effect against uPA cleavage of a chromogenic substrate (Z-GGR-AMC).

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please avoid repeated freeze-thaw cycles.**

Amino Acid Sequence

MGSSHHHHHH SGLVPRGSH MVHPPSYVA HLASDFGVRV FQOVAQASKD RNVVFSPLYGVASVLAMLQLT
 TGGETQQQIQ AAMGFKIDDK GMAPALRHLY KELMGPWNKD EISTTDAIFVQRDLKLVQGF MPHFFRLFRS
 TVKQVDFSEV ERARFIINDW VKTHTKGMIS NLLGKGAVDQLTRLVNLVNL YFNGQWKTPF PDSSTHRRLF
 HKSDGSTVSV PMMAQTNKFN YTEFTTPDGHYYDILELPYH GDTLSMFIAA PYEKEVPLSA LTNILSAQLI
 SHWKGNMTRL PRLLVLPKFSLETEVDLRKP LENLGMTDMF RQFQADFTSL SDQEPLHVAQ ALQVKKIEVN
 ESGTVASSSTAVIVSARMAP EEIIMDRPFL FVVRHNPTGT VLFMGQVMEP

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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