

Technical Bulletin

Plasminogen Activator Inhibitor 1 (PAI-1) Human

Recombinant, expressed in *E. coli***A8111**

Storage Temperature: -20 °C

Synonyms: PAIE; PLANH1; Serpin E1 PAI-1; Serpine 1

Product Description

Plasminogen activator inhibitor 1 (PAI-1) protein belongs to the Serpin superfamily of serine protease inhibitors. It is the principal inhibitor of tissue plasminogen activator (tPA) and urokinase plasminogen activator (uPA), the activators of plasminogen, and therefore inhibits the fibrinolysis process. PAI is involved in extracellular matrix remodeling and has been implicated in processes like angiogenesis, chemotaxis, ovulation, and embryogenesis. PAI-1 is present in increased levels in various disease states such as a number of cancer forms, obesity and the metabolic syndrome.¹⁻¹²

This product is the active human PAI-1 protein with a molecular weight of ~43 kDa.

Product Profile

Purity: ≥ 90% by SDS-PAGE

Activity: ≥ 200,000 U/mg protein

Unit definition: 1 Unit irreversibly inhibits (100% inhibition) 1 Unit of tissue plasminogen activator (tPA) under physiological conditions (neutral pH and 37 °C).

This product is supplied as a lyophilized powder from a solution containing 0.5 M sodium chloride, 20 mM sodium acetate, and 50 mg/mL trehalose.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute with 0.25 mg/mL of ultrapure water. The reconstituted product contains 0.25 mg protein per mL in 0.5 M sodium chloride, 20 mM sodium acetate, and 50 mg/mL trehalose.

The solution should be left 15 minutes in RT until the it is clear.

Storage/Stability

Store the product at -20 °C. The product has a recommended retest date of 2 years, as supplied, properly stored, and unopened. After reconstitution, the enzyme should be refrozen at -70 °C in aliquots. The reconstituted product is stable for 1 month at -20 °C and for at least 2 months at -70 °C.

References

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