

Recombinant Rat PAI1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52308

Size: 10ug, 100ug

Protein Name: Plasminogen activator inhibitor 1 (PAI) (PAI-1) (Endothelial plasminogen activator inhibitor) (Serpine E1)

Synonym: Serpine1, Pai1, Planh1

UniProt ID: P20961

UniProt Link: www.uniprot.org/uniprotkb/P20961/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 402 AA

Molecular Weight: 45 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MQMSSALTCLTLGLVLVFGKGFASPLPESHTAQQATNFGVKVFQHVQASKDRNVVFSPYGVSSVL
AMLQLTTAGKTRQQIQDAMGFNISERGTAPALRKLSKELMGSWNKNEISTADAIQVQRDLELVQGFM
PHFFKLFRTTVKQVDFSEVERARFIINDWVERHTKGMISDLLAKGAVNELTRLVLVNALYFNGQWKTP
FLEASTHQRLFHKSDGSTISVPMMAQNNKFNYTEFTTPDGHEYDILELPYHGETLSMFIAAPFEKDVP
LSAITNILDALIRQWKSNMTRLPRLLILPKFSLETEVDLRGPLEKLGMTDIFSSTQADFTSLSDQEQLS
VAQALQKVKIEVNESGTVASSSTAILVSARMAPTEMVLDRSFLFVVRHNPTETILFMGQLMEP

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Plasminogen activator inhibitor 1 (PAI) (PAI-1) (Endothelial plasminogen activator inhibitor) (Serpine E1) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Serine protease inhibitor. Inhibits TMPRSS7. Is a primary inhibitor of tissue-type plasminogen activator (PLAT) and urokinase-type plasminogen activator (PLAU). As PLAT inhibitor, it is required for fibrinolysis down-regulation and is responsible for the controlled degradation of blood clots. As PLAU inhibitor, it is involved in the regulation of cell adhesion and spreading. Acts as a regulator of cell migration, independently of its role as protease inhibitor. It is required for stimulation of keratinocyte migration during cutaneous injury repair. It is involved in cellular and replicative senescence (By similarity). Plays a role in alveolar type 2 cells senescence in the lung (By similarity). Is involved in the regulation of cementogenic differentiation of periodontal ligament stem cells, and regulates odontoblast differentiation and dentin formation during odontogenesis (By similarity).

Subcellular Localization: Secreted .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.