

Serpin E1 Protein, Mouse (N172S, R253G, HEK293, His)

Cat. No.:	HY-P71133
Synonyms:	Plasminogen activator inhibitor 1; Endothelial plasminogen activator inhibitor; Serpin E1; Mr1; Pai1; Planh1;
Species:	Mouse
Source:	HEK293
Accession:	P22777 (T23-P402, N172S, R253G)
Gene ID:	18787
Molecular Weight:	Approximately 48.54 kDa

PROPERTIES

AA Sequence	<pre> T L P L R E S H T A H Q A T D F G V K V F Q Q V V Q A S K D R N V V F S P Y G V S S V L A M L Q M T T A G K T R R Q I Q D A M G F K V N E K G T A H A L R Q L S K E L M G P W N K N E I S T A D A I F V Q R D L E L V Q G F M P H F F K L F Q T M V K Q V D F S E V E R A R F I I N D W V E R H T K G M I S D L L A K G A V D E L T R L V L V N A L Y F S G Q W K T P F L E A S T H Q R L F H K S D G S T V S V P M M A Q S N K F N Y T E F T T P D G L E Y D V V E L P Y Q G D T L S M F I A A P F E K D V H L S A L T N I L D A E L I R Q W K G N M T R L P R L L I L P K F S L E T E V D L R G P L E K L G M P D M F S A T L A D F T S L S D Q E Q L S V A Q A L Q K V R I E V N E S G T V A S S S T A F V I S A R M A P T E M V I D R S F L F V V R H N P T E T I L F M G Q V M E P </pre>
Biological Activity	Data is not available
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Serpin E1, a serine protease inhibitor, exerts its regulatory functions through various mechanisms. It inhibits TMPRSS7 and serves as a primary inhibitor for both tissue-type plasminogen activator (PLAT) and urokinase-type plasminogen activator (PLAU). Acting as a crucial PLAT inhibitor, it plays a vital role in down-regulating fibrinolysis and orchestrates the controlled degradation of blood clots. In its capacity as a PLAU inhibitor, Serpin E1 is implicated in the regulation of cell adhesion and spreading. Beyond its role as a protease inhibitor, it acts as a regulator of cell migration, notably contributing to the stimulation of keratinocyte migration during cutaneous injury repair. Furthermore, Serpin E1 is involved in cellular and replicative senescence, playing a role in alveolar type 2 cells' senescence in the lung. Additionally, it participates in the regulation of cementogenic differentiation of periodontal ligament stem cells and influences odontoblast differentiation and dentin formation during odontogenesis. Serpin E1 forms a heterodimer with TMPRSS7, interacts with various proteins like VTN, PPP1CB, SORL1, LRP1, and PLAUR, and engages in complex interactions in different cellular contexts, emphasizing its multifaceted regulatory role.

Caution: Product has not been fully validated for medical applications. For research use only.

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