

DESCRIPTION

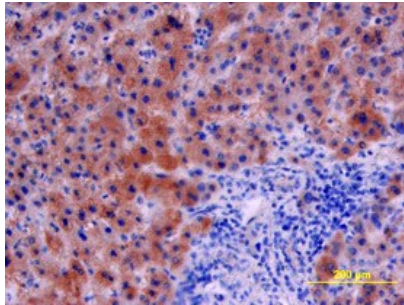
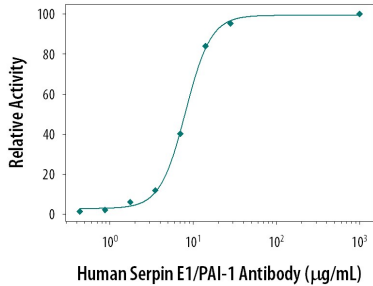
Species Reactivity	Human
Specificity	Detects human Serpin E1/PAI-1 in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant mouse Serpin E1 is observed and less than 2% cross-reactivity with recombinant human (rh) Serpin A1, rhSerpin A3, rhSerpin A4, rhSerpin A5, rhSerpin C1, rhSerpin F2, and rhSerpin F1/PEDF is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Serpin E1/PAI-1 Gly21-Pro402 Accession # P05121
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Serpin E1/PAI-1 (Catalog # 1786-PI)
Immunohistochemistry	5-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Serpin E1/PAI-1 (Catalog # 1786-PI), see our available Western blot detection antibodies
Neutralization		Measured by its ability to neutralize Recombinant Human Serpin E1 (1.35 µg/mL, Catalog # 1786-PI) inhibition of Recombinant Human u-Plasminogen Activator (uPA)/Urokinase (0.1 µg/mL, Catalog # 1310-SE) cleavage of the fluorogenic peptide substrate Z-GGR-AMC (100 µM). The Neutralization Dose (ND ₅₀) is typically 10 µg/mL.

DATA

<p>Immunohistochemistry</p>  <p>Serpin E1/PAI-1 in Human Liver Cancer Tissue. Serpin E1/PAI-1 was detected in immersion fixed paraffin-embedded sections of human liver cancer tissue using Goat Anti-Human Serpin E1/PAI-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1786) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>	<p>Neutralization</p>  <p>Neutralization of Serpin E1/PAI-1 Activity by Human Serpin E1/PAI-1 Antibody. Recombinant Human u-Plasminogen Activator (uPA)/Urokinase (0.1 µg/mL, Catalog # 1310-SE) activity is measured in the presence of Recombinant Human Serpin E1 (1.35 µg/mL, Catalog # 1786-PI) that has been preincubated with increasing concentrations of Goat Anti-Human Serpin E1/PAI-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1786). The ND₅₀ is typically 10 µg/mL.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

As a member of the Serpin superfamily of serine protease inhibitors, Serpin E1/PAI-1 is the principle inhibitor of urokinase-type plasminogen activator (uPA) and tissue-type PA (1, 2). As important regulators of extracellular matrix remodeling, uPA and PAI-1 play a major role in many processes such as angiogenesis, tumor invasion and obesity (2-4). For example, uPA and PAI-1 are the only tumor prognostic factors validated at the highest level of evidence with regard to their clinical utility in breast cancer (5). The human PAI-1 is initially synthesized as 402 amino acid precursor with a N-terminal signal peptide (6, 7). PAI-1 may exist in one of two possible conformations, designated as active or latent (8). The purified recombinant human (rh) PAI-1 is active against rhuPA. The heterogeneity at the N-terminus of the purified rhPAI-1 has been observed before for both the recombinant and native proteins (9).

References:

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3. Duffy, M.J. (2002) *Clin. Chem.* **48**:1194.
4. Juhan-Vague, I. *et al.* (2003) *J. Thromb. Haemost.* **1**:1575.
5. Harbeck, N. *et al.* (2002) *Clin. Breast Cancer* **3**:196.
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