

****REPRESENTATIVE DATASHEET******Sheep anti-human
Plasminogen Activator Inhibitor Type 1
Whole IgG from antiserum
10 mg**

Product #: SAPAI-IG
Lot #: XXXX
Expiry date: XXXX

Store at -10 to -20°C

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For Research Use Only.
Not for use in diagnostic procedures.

Description of PAI-1

Type I plasminogen activator inhibitor, PAI-1, is a 50 kDa single-chain glycoprotein which belongs to the serine protease inhibitor (SERPIN) family of proteins. The concentration of PAI-1 in normal human plasma is very low, with an average concentration of approximately 20 ng/ml. The plasma concentrations of PAI-1 can be affected by a number of factors including diurnal variations, age, sex, pregnancy, obesity and exercise status. PAI-1 is synthesized by various cell types including endothelial cells, hepatocytes, vascular smooth muscle cells, fibroblasts, mesothelial cells, granulosa cells and malignant cell lines. It is also found in the α -granules of platelets as well as plasma. PAI-1 exists in at least three different conformations, including an active form with a half-life of approximately 1 – 3 hours, a latent form and a proteolytically or oxidatively inactivated form. The plasma glycoprotein vitronectin has been shown to bind active PAI-1 and stabilize it in its active conformation, extending its functional half-life to greater than 24 hours. Little specific binding of the latent or inactive forms of PAI-1 to vitronectin occurs. PAI-1 is considered to be the primary regulator of plasminogen activation *in vivo*. It is the major physiologic inhibitor of both the single chain and two-chain forms of tPA, being able to inhibit the single-chain form at least 10000 times greater than other PAIs.¹⁻³

REFERENCES and REVIEWS

1. Kruihof, E.K.O. Plasminogen activator inhibitor type 1: biochemical, biological and clinical aspects. *Fibrinolysis*, 2:59-70, 1988.
2. Edelberg, J.M, Sane, D.C., and Pizzo, S.V. Vascular regulation of plasminogen activator inhibitor-1 activity. *Semin. Thromb. Hemost.*, 20(4):319-323, 1994.
3. Loskutoff, D.J., Sawdey, M., and Mimuro, J. Type 1 plasminogen activator inhibitor, *Prog. Thromb. Haemost.*, 9:87-115, 1988.

Product Specifications**Description:**

Vial containing XXXX ml of whole IgG representing approximately 1 ml of antiserum. Total protein is 10 mg.

Format:

Whole IgG, clear liquid.

Host Animal:

Sheep

Immunogen:

Recombinant Plasminogen Activator Inhibitor-1 (PAI-1) prepared from bacterial extracts.

Concentration:

IgG concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient ($E^{1\%}_{280}$) of 13.4.

Buffer:

10 mM HEPES, pH 7.4, 150 mM NaCl, 50% (v/v) glycerol.

Storage:

Store between -10 and -20°C. Product will become viscous but will not freeze. Avoid storage in frost-free freezers. Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use.

Specificity:

This antibody is specific for PAI-1 as demonstrated by immunoelectrophoresis and ELISA.

Applications:

Suitable for use as a source of antibodies to PAI-1.

Species Cross Reactivity: (immunodiffusion vs. citrated plasma)

Not determined.

Related Products:

Cat #: **SAPAI-HRP** Sheep anti-human PAI-1, IgG peroxidase
Cat #: **PAI-DP** Human plasma deficient in PAI-1, immune depleted
Cat #: **TPA/PAI-DP** Human plasma deficient in tPA/PAI, immune depleted

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