



## Goat anti-human Plasminogen (Pg)

Affinity-Purified IgG

0.5 mg

**Product #:** GAPG-AP

**Lot #:** XXXX

**Expiry date:** XXXX

Store at -10 to -20°C

For Research Use Only.

Not for use in diagnostic procedures.

### Description of Plasminogen (Pg)

Plasminogen (Pg) is synthesized in the liver and circulates in plasma at a concentration of ~200 µg/ml (~2.3 µM). Plasminogen is a single-chain glycoprotein of ~88 kDa that consists of a catalytic domain followed by five kringle structures. Within these kringle structures are four low-affinity lysine binding sites and one high-affinity lysine binding site. It is through these lysine binding sites that plasminogen binds to fibrin and to  $\alpha_2$ antiplasmin. Native plasminogen (glu-plasminogen) exists in two variants that differ in their extent of glycosylation, and each variant has up to six isoelectric forms with respect to sialic acid content, for a total of 12 molecular forms. Activation of glu-plasminogen by the plasminogen activators urokinase (UPA), or tissue plasminogen activator (tPA) occurs by cleavage after residue Arg<sup>560</sup> to produce the two-chain active serine protease plasmin. In a positive feedback reaction, the plasmin generated cleaves an ~8 kDa peptide from glu-plasminogen, producing lys<sup>77</sup>-plasminogen which has a higher affinity for fibrin and when bound is a preferred substrate for plasminogen activators such as urokinase. Additional activators of plasminogen include kallikrein and activated factor XII. The primary inhibitor of plasmin in plasma is  $\alpha_2$ antiplasmin. Other physiological inhibitors of plasmin include  $\alpha_2$ macroglobulin and antithrombin<sup>1-3</sup>.

### REFERENCES and REVIEWS

1. Bachmann F; The Plasminogen-Plasmin Enzyme System; in Hemostasis and Thrombosis, 3<sup>rd</sup> Edition, eds. RW Colman, J Hirsh, VJ Marder and EW Salzman, pp. 1592-1622, J.B. Lippincott Co., Philadelphia PA, USA, 1994.
2. Castellino FJ, Powell JR; Human Plasminogen; Methods in Enzymology 80, pp 365-378, 1981.
3. Wiman B, Collen D; Molecular Mechanism of Physiological Fibrinolysis; Nature 272, pp 548-553, 1978.

### Product Specifications

#### Description:

Vial containing XXXX ml of IgG purified by affinity-chromatography on immobilized Pg. Total protein is 0.5 mg.

#### Format:

Affinity-purified IgG (APIgG), clear liquid.

#### Host Animal:

Goat

#### Immunogen:

Human plasminogen purified from plasma.

#### Concentration:

APIgG 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 plasminogen as demonstrated by immunoelectrophoresis and ELISA.

#### Applications:

Suitable as a source of enriched antibodies to human Pg.

#### Neutralizing activity:

Not determined

#### Species Cross Reactivity: (immunodiffusion vs. citrated plasma)

Human:	XXXXX	Mouse:	XXXX	Rat:	XXXX
Rabbit:	XXXX	Pig:	XXXX	Dog:	XXXX