



Sheep Anti-Human Plasminogen (PG) Whole IgG from antiserum 5.0 mg

Catalogue: **SAPG-IG**
Lot No: **SAMPLE**
Expiry date: ****/******
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 at a concentration of PC in plasma is ~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 α_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 Arg⁵⁶⁰ to produce the two-chain active serine protease plasmin. In a positive feedback reaction, the plasmin generated cleaves a ~8 kDa peptide from glu-plasminogen, producing lys⁷⁷-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 α_2 antiplasmin. Other physiological inhibitors of plasmin include α_2 -macroglobulin and antithrombin¹⁻³.

REFERENCES and REVIEWS

1. Bachmann F; The Plasminogen-Plasmin Enzyme System; in Hemostasis and Thrombosis, 3rd Edition, eds. RW Coleman, 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 1.000 mL of whole IgG representing approximately 1 ml of antiserum. Total protein is 5 mg.

Format:

Whole IgG, clear liquid.

Host Animal:

Sheep

Immunogen:

Human plasminogen purified from plasma.

Concentration:

IgG concentration is 5.00 mg/ml, determined by absorbance using an extinction coefficient ($E_{280}^{1\%}$) of 13.4.

Buffer:

10 mM HEPES, 0.15 M NaCl, 50% (v/v) glycerol, pH 7.4.

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 antibodies to human Plasminogen.

Neutralizing activity:

Not determined.

RELATED PRODUCTS

GAPG-IG	Goat Anti-Human Plasminogen, IgG from antiserum
GAPG-AP	Goat Anti-Human Plasminogen, affinity purified IgG
GAPG-APHRP	Goat Anti-Human Pg, APIgG-peroxidase conjugate
SAPG-AP	Sheep Anti-Human Plasminogen, affinity purified IgG
PG-EIA	Paired antibody set for ELISA of Pg, 5 x 96 tests
PG-DP	Human plasma deficient in Pg, immune depleted

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