

# Lys-Plasminogen (Human)

1.00 mg

Ref#: HPGL

Lot#: xxxxxx

Exp. Date: xxxx-xx



Store at +2 to +8°C

For Research Use Only

Not for Use in Diagnostic Procedures

For *in vitro* Use Only

<b>Description:</b>	Lys-Plasminogen (Human)
<b>Format:</b>	Lyophilized in 50 mM Tris-HCl / 0.1 M NaCl / pH 7.3
<b>Host:</b>	Human
<b>Storage:</b>	Store between +2 and +8°C After reconstitution aliquot and freeze at ≤-60°C
<b>Reconstitution:</b>	We recommend hydrating the protein with sterile water to the original volume
<b>Volume:</b>	1 vial containing 0.820 mL
<b>Total Protein:</b>	1.00 mg
<b>Concentration:</b>	1.22 mg/mL before lyophilisation by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 17.0$
<b>Molecular weight:</b>	83,000 daltons

Plasminogen 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 α2-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 an ~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 Lys-Plasminogen is purified from homogeneous Glu-Plasminogen by activation with Plasmin. This activation results in the release of a 76 amino acid residue peptide (Glu-Lys76). This Lys77-Plasminogen can be readily converted to Lys77-Plasmin by any of the common plasminogen activators. The protein purity is determined by SDS-PAGE.

The above protein was purified from Human plasma that was tested and found negative by FDA accepted methods for Anti-HIV 1/2, Anti-HTLV I & II, HBsAg, Anti-HCV, Syphilis, HBC Ab, HIV-1 p24 Ag or HIV-1 RNA, HCV RNA and HBV RNA. Donors are screened for CJD (Creutzfeld-Jakob Disease).