

# Plasminogen (Mouse)

1.0 mg

Ref#: MPG

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>      | Plasminogen (Mouse)                                                            |
| <b>Format:</b>           | Lyophilized in 50 mM Tris-HCl/ 0.1 M NaCl/ pH 7.2                              |
| <b>Host:</b>             | Mouse                                                                          |
| <b>Storage:</b>          | Store between +2 and +8°C<br>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 <b>0.513 mL</b>                                              |
| <b>Total Protein:</b>    | <b>1.00 mg</b>                                                                 |
| <b>Concentration:</b>    | <b>1.95 mg/mL</b> before lyophilisation by Absorbance                          |
| <b>Molecular weight:</b> | 90,000 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 murine Plasminogen is purified from mouse plasma, Plasminogen is >94% pure by SDS-PAGE