

Active Recombinant Human Plasminogen

Cat. No. PLG-4186H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human PLG is produced from Human Fluid is a glycosylated polypeptide chain which migrates as a doublet 50 kDa on SDS-PAGE. The PLG is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
Description	<p>There are several proteolytic fragments or specific domains of proteins that act as inhibitors of angiogenesis. These include fragments of plasminogen such as Angiostatin protein kringles 1-4 and kringles 1-5, Endostatin, Restin, PEX, the N-terminal fragment of prolactin, and the Nterminally truncated platelet factor.</p> <p>Angiostatin is a proteolytic protein fragment of plasminogen that is comprised of the first 4 kringle regions. PLG prevents the growth of endothelial cells, and its systemic administration inhibits the growth of primary carcinomas in mice. Angiostatin Kringles 1-3 segment has a larger inhibitory activity than the Angiostatin kringles 1-4 fragment.</p> <p>The protease-activated angiostatin kringles 1-5 is the most potent plasminogen fragment with over 50 times larger endothelial cell specific inhibitory activity.</p> <p>Angiostatin kringles 1-5 systemic administration inhibits growth of fibrosarcoma and significantly reduces neovascularization. Angiostatin is an angiogenesis inhibitor in mouse serum and urine. Angiostatin is a 38 kDa protein fragment of the plasminogen composed of the 1st 4 kringle domains of plasminogen. PLG is also named plasminogen kringles 1-4 and PK1-4. Angiostatin protein is manufactured by the protelytic cleavage of plasminogen by a serine protease from several prostate</p>

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	carcinoma cell lines. The manufacturing of angiostatin by pancreatic cancer cells can be inhibited by TGF-beta 1 along with plasminogen activator inhibitor type-1 (PAI1).
Form	Lyophilized from a (1mg/ml) solution in containing 20mM Hepes buffer pH-8.2 & 20mM NaCl.
Purity	Greater than 98.0% as determined by SDS-PAGE.
Bio-activity	Human PLG significantly inhibits basic-FGF induced endothelial cell proliferation and migration at concentration ranging from 300nM-1.0 uM.
Physical Appearance	Sterile Filtered lyophilized powder.
Solubility	It is recommended to reconstitute the lyophilized PLG in sterile 18Mμ-cm H2O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Storage	Lyophilized PLG although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution PLG should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	PLG plasminogen [Homo sapiens]
Official Symbol	PLG
Synonyms	PLG; plasminogen; DKFZp779M0222; plasmin; OTTHUMP00000017544; OTTHUMP00000017545; OTTHUMP000000197002
Gene ID	5340

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mRNA Refseq	NM_000301
Protein Refseq	NP_000292
MIM	173350
UniProt ID	P00747
Chromosome Location	6q26
Pathway	Blood Clotting Cascade; Complement and Coagulation Cascades; Diabetes pathways; Dissolution of Fibrin Clot; Formation of Platelet plug; Hemostasis; Influenza A; Platelet Activation; Platelet degranulation; Selenium Pathway; Signaling by PDGF; Staphylococcus aureus infection; Syndecan-4-mediated signaling events; amb2 Integrin signaling; p75(NTR)-mediated signaling
Function	apolipoprotein binding; cell surface binding; peptidase activity; protein binding; serine-type endopeptidase activity
Protein PLG PDB 1b2i	