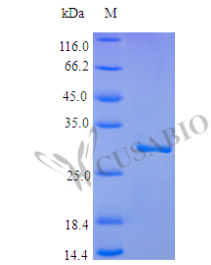
Recombinant Human Plasminogen protein (PLG), partial (Active)

Product Code	CSB-AP002261HU
Abbreviation	Recombinant Human PLG protein, partial (Active)
Uniprot No.	P00747
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 μm filtered 20 mM NaAc, pH 5.5, 4 % mannitol
Product Type	Other
Immunogen Species	Homo sapiens (Human)
Biological Activity	Fully biologically active when compared to standard. The specific activity determined by an assay on anti-proliferation and anti-migration using endothelial cells in vitro and anti-angiogenesis in vivo is $5.5x10^5$ IU/mg.
Purity	>95% as determined by SDS-PAGE.
Sequence	VYLSECKTGN GKNYRGTMSK TKNGITCQKW SSTSPHRPRF SPATHPSEGL EENYCRNPDN DPQGPWCYTT DPEKRYDYCD ILECEEECMH CSGENYDGKI SKTMSGLECQ AWDSQSPHAH GYIPSKFPNK NLKKNYCRNP DRELRPWCFT TDPNKRWELC DIPRCTTPPP SSGPTYQCLK GTGENYRGNV AVTVSGHTCQ HWSAQTPHTH NRTPENFPCK NLDENYCRNP DGKRAPWCHT TNSQVRWEYC KIPSCDSSP
Research Area	Cancer
Source	E.coli
Target Names	PLG
Expression Region	98-356aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag-Free
Mol. Weight	29.7 kDa
Protein Length	Partial
PubMed ID	2318848; 3030813; 14574404; 15489334; 122932; 6148961; 126863; 142009; 4694729; 4240117; 6919539; 6094526; 9201958; 3356193; 9102401; 9054441; 7525077; 9102221; 9548733; 10077593; 10889192; 14699093; 16043488; 18780401; 2143188; 19712047; 24275569; 165714
Image	



Description

Our active recombinant human plasminogen protein (PLG) is produced by expressing the gene fragment that encodes the 98-356aa region of the human PLG in E.coli. Its specific activity is 5.5x105 IU/mg, determined by an assay on anti-proliferation and anti-migration using endothelial cells in vitro and anti-angiogenesis in vivo. Its endotoxin level is below 1.0 EU/μg as determined by the LAL method. It achieves over 90% purity, as measured by SDS-PAGE.

Human PLG is a crucial protein in the fibrinolytic system, primarily responsible for the conversion of fibrin into soluble fibrin degradation products, thereby facilitating the dissolution of blood clots. It is synthesized in the liver and circulates in the bloodstream as an inactive zymogen. Upon activation by plasminogen activators such as tPA and uPA, PLG is converted into plasmin, which exhibits proteolytic activity essential for various physiological processes, including wound healing, tissue remodeling, and inflammation [1][2][3].

PLG interaction with various proteins, including those from pathogens is crucial for the immune response, as many pathogens exploit plasminogen to evade host defenses by binding to it and activating it to plasmin, which can degrade extracellular matrix components and promote tissue invasion [4][5][6]. In addition to its role in fibrinolysis, PLG is involved in cellular processes such as migration and invasion [7][8].

References:

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Endotoxin	Less than 1.0 EU/μg as determined by LAL method.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.