## abcam

### Product datasheet

# Recombinant human Plasminogen protein (Active) ab200264

**Description** 

Product name Recombinant human Plasminogen protein (Active)

**Biological activity** Fully biologically active when compared to standard. The activity is assayed on anti-proliferation

and anti-migration of endothelial cells in vitro and antiangiogenesis in vivo. The specific activity of

anti-migration of endothelial cells in vitro is 0.55×10<sup>5</sup>Units/mg.

Purity > 95 % SDS-PAGE.

>95% HPLC analyses.

Endotoxin level < 1.000 Eu/µg

Expression system Escherichia coli

Accession <u>P00747</u>

Protein length Protein fragment

Animal free No

Nature Recombinant

**Species** Human

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

Predicted molecular weight 30 kDa

Amino acids 98 to 356

#### **Specifications**

Our <u>Abpromise guarantee</u> covers the use of ab200264 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Functional Studies

**HPLC** 

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SDS-PAGE

Form Lyophilized

**Additional notes** Endotoxin level determined by LAL method.

#### **Preparation and Storage**

Stability and Storage Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C. Avoid freeze / thaw cycle.

pH: 5.50

Constituents: 4% Mannitol, 0.16% Sodium acetate

This product is an active protein and may elicit a biological response in vivo, handle with caution.

**Reconstitution**We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the

bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and

store at -20°C to -70°C.

#### **General Info**

**Function** Plasmin dissolves the fibrin of blood clots and acts as a proteolytic factor in a variety of other

processes including embryonic development, tissue remodeling, tumor invasion, and

inflammation. In ovulation, weakens the walls of the Graafian follicle. It activates the urokinase-type plasminogen activator, collagenases and several complement zymogens, such as C1 and C5. Cleavage of fibronectin and laminin leads to cell detachment and apoptosis. Also cleaves fibrin, thrombospondin and von Willebrand factor. Its role in tissue remodeling and tumor invasion may

be modulated by CSPG4. Binds to cells.

Angiostatin is an angiogenesis inhibitor that blocks neovascularization and growth of

experimental primary and metastatic tumors in vivo.

**Tissue specificity** Present in plasma and many other extracellular fluids. It is synthesized in the liver.

Involvement in disease Defects in PLG are a cause of susceptibility to thrombosis (THR) [MIM:188050]. It is a

multifactorial disorder of hemostasis characterized by abnormal platelet aggregation in response

to various agents and recurrent thrombi formation.

Defects in PLG are the cause of plasminogen deficiency (PLGD) [MIM:217090]. PLGD is

characterized by decreased serum plasminogen activity. Two forms of the disorder are

distinguished: type 1 deficiency is additionally characterized by decreased plasminogen antigen levels and clinical symptoms, whereas type 2 deficiency, also known as dysplasminogenemia, is characterized by normal, or slightly reduced antigen levels, and absence of clinical manifestations.

Plasminogen deficiency type 1 results in markedly impaired extracellular fibrinolysis and chronic mucosal pseudomembranous lesions due to subepithelial fibrin deposition and inflammation. The

most common clinical manifestation of type 1 deficiency is ligneous conjunctivitis in which pseudomembranes formation on the palpebral surfaces of the eye progresses to white, yellow-white, or red thick masses with a wood-like consistency that replace the normal mucosa.

**Sequence similarities**Belongs to the peptidase S1 family. Plasminogen subfamily.

Contains 5 kringle domains. Contains 1 PAN domain.

Contains 1 peptidase S1 domain.

**Domain** Kringle domains mediate interaction with CSPG4.

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Post-translational	N-linked glycan contains N-acetyllactosamine and sialic acid. O-linked glycans consist of Gal-
modifications	GalNAc disaccharide modified with up to 2 sialic acid residues (microheterogeneity).
	In the presence of the inhibitor, the activation involves only cleavage after Arg-580, yielding two
	chains held together by two disulfide bonds. In the absence of the inhibitor, the activation involves
	additionally the removal of the activation peptide.
Cellular localization	Secreted. Locates to the cell surface where it is proteolytically cleaved to produce the active

plasmin. Interaction with HRG tethers it to the cell surface.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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