# abcam

# Product datasheet

# Plasmin Activity Assay Kit (Fluorometric) ab204728

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#### Overview

Product name Plasmin Activity Assay Kit (Fluorometric)

**Detection method** Fluorescent

Sample type Plasma, Purified protein

**Assay type** Enzyme activity

Sensitivity 10 ng
Assay time 0h 20m

Species reactivity Reacts with: Mammals, Other species

Product overview Plasmin Activity Assay Kit (Fluorometric) (ab204728) is based on the ability of Plasmin to

proteolytically cleave a synthetic plasmin substrate and release a fluorophore, AMC, which can be easily quantified by fluorescence microplate readers at Ex/Em = 360/450 nm. This assay kit is

simple, rapid and can detect plasmin activity as low as 10 ng in a variety of samples.

Notes This product is manufactured by BioVision, an Abcam company and was previously called K381

Plasmin Activity Assay Kit (Fluorometric). K381-100 is the same size as the 100 test size of

ab204728.

Plasmin (EC 3.4.21.7) is a serine protease occurring in plasma as plasminogen. Upon activation via cleavage by plasminogen activators; plasmin solubilizes fibrin clots and activates and/or degrades compounds of the coagulation and complement systems. Plasminogen-Plasmin system has also been implicated in a wide variety of physiologic and pathologic processes, including

tumor growth, invasion and metastasis.

**Platform** Microplate reader

#### **Properties**

**Storage instructions** Store at -20°C. Please refer to protocols.

Components	100 tests
Plasmin Assay Buffer	1 x 15ml
Plasmin Dilution Buffer	1 x 1.5ml
Plasmin Enzyme	1 x 5µl

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Components	100 tests
Plasmin Substrate I	1 x 200μl

#### **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

Plasminogen deficiency

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.

Post-translational modifications

N-linked glycan contains N-acetyllactosamine and sialic acid. O-linked glycans consist of Gal-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

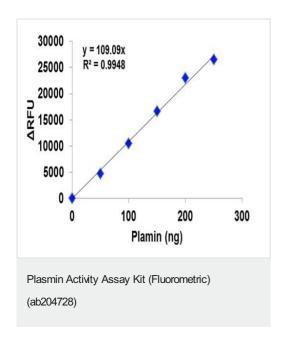
additionally the removal of the activation peptide.

**Cellular localization** 

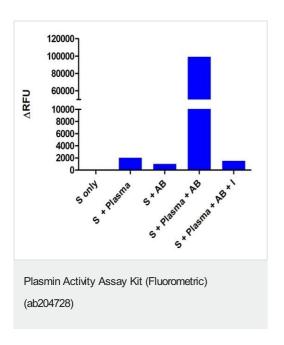
Secreted. Locates to the cell surface where it is proteolytically cleaved to produce the active

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

#### **Images**



Typical Plasmin standard curve.



Plasmin activity was measured in plasma samples in the presence and absence of a Plasmin inhibitor, Aprotinin. S = Substrate, I = Inhibitor, AB = Activation Buffer containing Urokinase

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