

The background of the page is a photograph of a laboratory setting. A person wearing a white lab coat and gloves is using a pipette to transfer liquid into a small vial. The scene is brightly lit, and the focus is on the hands and the pipette. A teal-colored banner with a white arrow pointing right is overlaid on the bottom left of the image.

Oncogene Science uPA ELISA and PAI-1 ELISA

Urokinase-type Plasminogen Activator (uPA)
Plasminogen Activator Inhibitor, type 1 (PAI-1)
For Research Use Only. Not for use in diagnostic procedures.

Urokinase-type Plasminogen Activator (uPA)

→ Use

The Oncogene Science® uPA ELISA is an enzyme-linked immunoassay used to quantitate pro-, high molecular weight (HMW)- and low molecular weight (LMW)-uPA found in human serum or plasma. This test is for research use only (RUO) and is not for use in diagnostic procedures.

→ uPA

uPA is a 52-kDa serine proteinase and is involved in tissue remodeling, cell migration, and angiogenesis, as well as tumor cell invasion and metastasis [1,2]. The enzymatic activity of uPA is regulated by two plasminogen activator inhibitors called PAI-1 and PAI-2. These can bind to the catalytically active B chain of uPA.

When active uPA is bound to its receptor, subsequent PAI-1 binding results in internalization and degradation of the complex [2]. Secreted uPA may originate from several cell types, including tumor tissue [3], adjacent stromal cells, or fibroblasts [4].

The significance of uPA expression and subsequent proteinase activity has been the subject of detailed studies in a variety of models. Additionally, more recent research has been dedicated to understanding uPA and its potential uses when measured in serum or plasma [12–15,17,18,21–23,25,26]. The uPA ELISA offers cancer researchers a reproducible way to study the role that uPA plays in cancer development, progression and treatment.



Plasminogen Activator Inhibitor, type 1 (PAI-1)

→ Use

The Oncogene Science PAI-1 ELISA is an enzyme-linked immunoassay used to quantitate PAI-1 found in human plasma. This test is for research use only (RUO) and is not for use in diagnostic procedures.

→ PAI-1

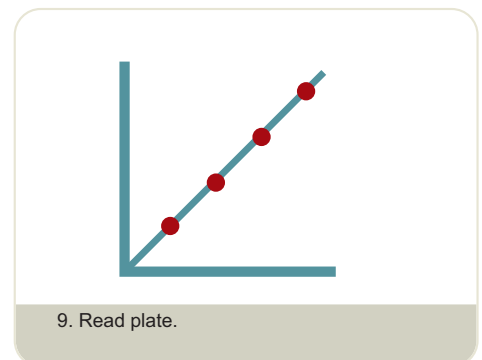
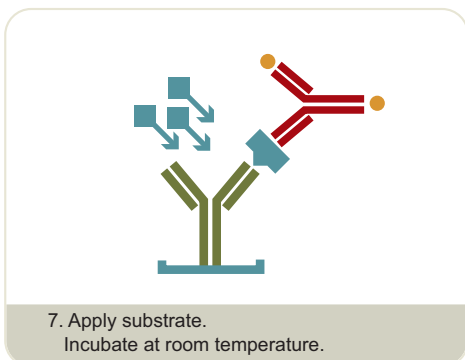
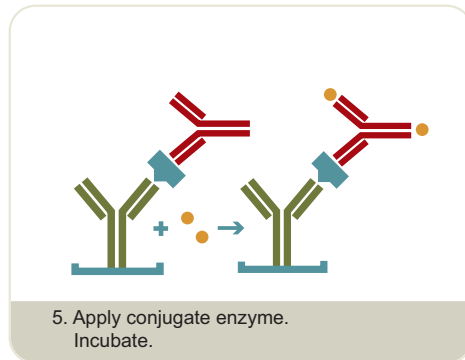
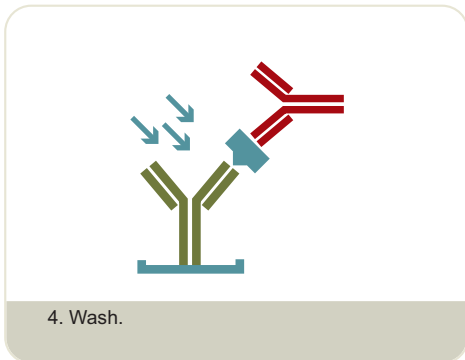
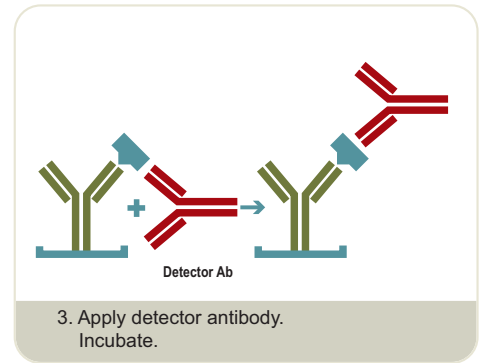
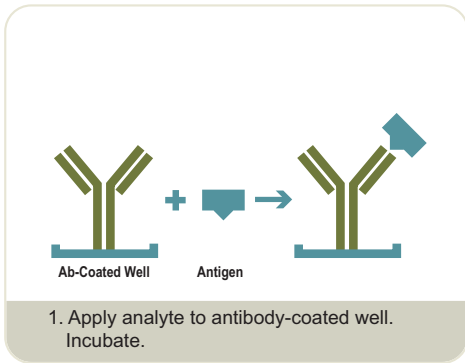
PAI-1 is a 50-kDa glycoprotein member of the serine protease inhibitor superfamily and is the principal physiological inhibitor of both forms of plasminogen activators (PA's), uPA (urokinase-type plasminogen activator), and tPA (tissue-type plasminogen activator). It is secreted in an active form, and can be measured in plasma samples using the PAI-1 ELISA. It is hypothesized that high levels of PAI-1 serve to protect the tumor stroma from degradation by high amounts of secreted uPA [5,6].

High PAI-1 levels also may contribute to tumor-induced angiogenesis [7,8]. Initial studies which focused on elevated uPA and PAI-1 levels in tumor lysates and cytosols have suggested that high levels may be associated with poor prognosis in primary breast cancer patients as well as an increased risk of disease recurrence [9-11]. Similar studies are now reviewing the potential role of plasma PAI-1 in a variety of cancers [12,16,19,20,24,26].



ELISA Procedure for uPA and PAI-1

Results are available in one day for researchers who require a standardized, reliable result for comparing values within the laboratory and between laboratories.



→ For additional product information or to place an order, please visit www.oncogene.com.

Ordering Information for uPA

Part Number	Description			
06489892	uPA ELISA (RUO)	1 Plate	96 Wells	38 Samples†
06489906	uPA ELISA Controls (RUO)		1 mL	3 Levels

Each plate contains 96 antibody-coated test wells (12 strips of 8).

The uPA ELISA also includes the following required materials to ensure accurate, consistently reproducible results:

- uPA Standards
- Sample Diluent
- Detector Antibody
- Conjugate Diluent
- Conjugate Concentrate
- Substrate Diluent
- Substrate Tablets
- Filtered RO Water
- Stop Solution
- Platewash Concentrate (20x)
- Microtiter Plate

Ordering Information for PAI-1

Part Number	Description			
06489914	PAI-1 ELISA (RUO)	1 Plate	96 Wells	38 Samples†
06489922	PAI-1 ELISA Controls (RUO)		1 mL	3 Levels

Each plate contains 96 antibody-coated test wells (12 strips of 8).

The PAI-1 ELISA also includes the following required materials to ensure accurate, consistently reproducible results:

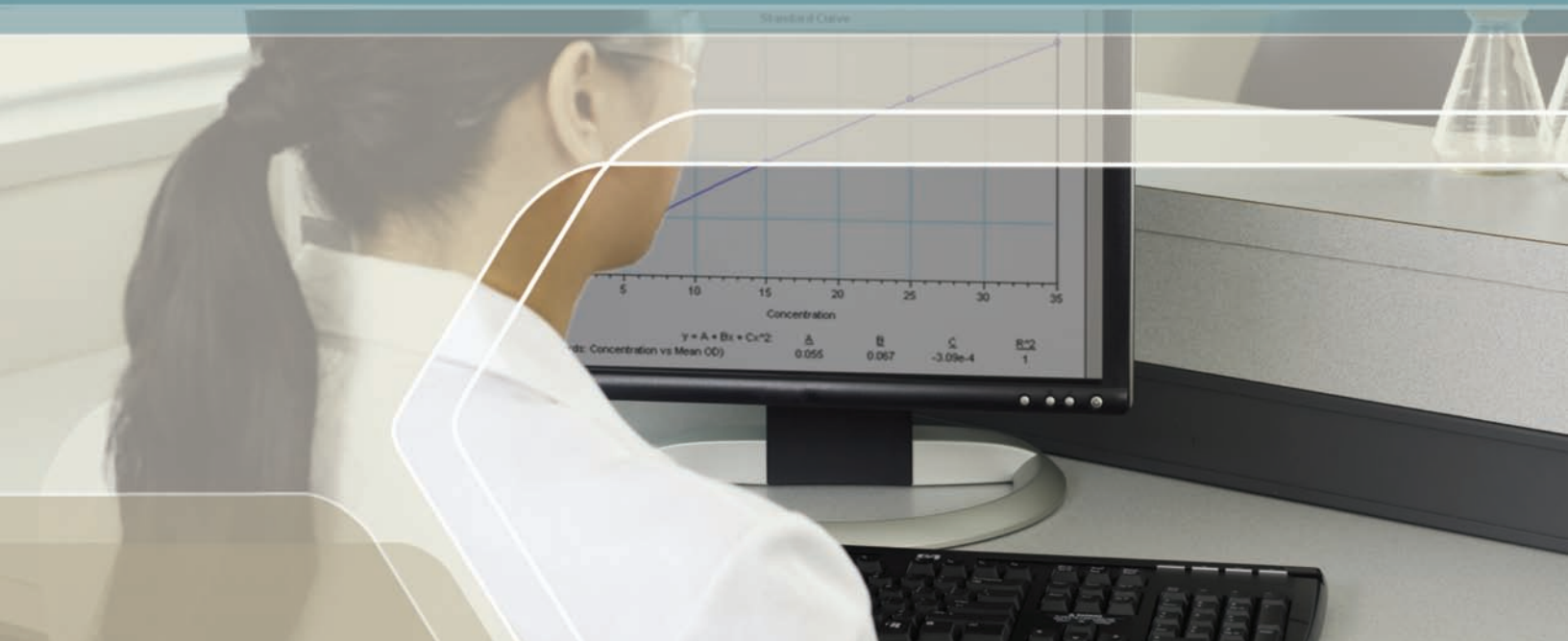
- PAI-1 Standards
- Sample Diluent
- Detector Antibody
- Conjugate Diluent
- Conjugate Concentrate
- Substrate Diluent
- Substrate Tablets
- Stop Solution
- Platewash Concentrate (20x)
- Microtiter Plate

†Tests to be run in duplicate.



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