uPA (urokinase-type plasminogen activator) and tPA (tissue plasminogen activator) are serine proteases that are members of the trypsin family, and they are essential to the intrinsic coagulation system. tPA is primarily involved in fibrinolysis, whereas uPA principally mediates cell migration and tissue remodeling processes. uPA and tPA are responsible for cleaving plasminogen, a large serum β-globulin that is deposited on the Fibrin strands within a thrombus. uPA and tPA preferentially target plasminogen at the Arg-Val bond to produce plasmin (also designated fibrinolysin), which is a trypsin-like enzyme that acts on Arg-Lys bonds in Fibrin and Fibrinogen and contributes to the systematic activation of the coagulation cascade. uPA and tPA each consist of two chains that are designated A and B. The A chain of uPA can be cleaved, resulting in low and high molecular mass forms. uPA and tPA are regulated by the serpin family members PAI-1 and PAI-2, which are serine proteinase inhibitors that complex with uPA, tPA and other targeted proteinases and then slowly dissociate to produce cleaved species that fold into stable inactive conformations.

**REFERENCES**

**CHROMOSOMAL LOCATION**
Genetic locus: PLAU (human) mapping to 10q22.2; Plau (mouse) mapping to 14 A3.

**SOURCE**
uPA (H77A10) is a mouse monoclonal antibody raised against a recombinant protein corresponding to full-length wild-type (glycosylated) uPA of mouse origin.

**PRODUCT**
Each vial contains 200 µg IgG kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

uPA (H77A10) is available conjugated to agarose (sc-59727 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-59727 HRP), 200 µg/ml, for WB, IHQ and ELISA; to either phycoerythrin (sc-59727 PE), fluorescein (sc-59727 FITC), Alexa Fluor® 488 (sc-59727 AF488), Alexa Fluor® 546 (sc-59727 AF546), Alexa Fluor® 594 (sc-59727 AF594) or Alexa Fluor® 647 (sc-59727 AF647), 200 µg/ml, for WB (RGB), IF, IHQ and FCM; and to either Alexa Fluor® 680 (sc-59727 AF680) or Alexa Fluor® 790 (sc-59727 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**
- **Western Blotting**: use m-IgGκκ (dilution range: 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).
- Suitable for use as control antibody for uPA siRNA (h): sc-36779, uPA siRNA (m): sc-36780, uPA shRNA Plasmid (h): sc-36779-SH, uPA shRNA Plasmid (m): sc-36780-SH, uPA shRNA (h) Lentiviral Particles: sc-36779-V and uPA shRNA (m) Lentiviral Particles: sc-36780-V.
- Molecular Weight of uPA precursor: 55 kDa.
- Molecular Weight of uPA active enzyme: 33 kDa.

**RECOMMENDED SUPPORT REAGENTS**
To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκκ BP-HRP: sc-516102 or m-IgGκκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκκ BP-FITC: sc-516140 or m-IgGκκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359880. 3) Immunohistochemistry: use m-IgGκκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086 or Organo/Limonene Mount: sc-45087.

**SELECT PRODUCT CITATIONS**

**STORAGE**
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**
For research use only, not for use in diagnostic procedures.