

uPA (C-20): sc-6830

BACKGROUND

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 disassociate to produce cleaved species that fold into stable inactive conformations.

CHROMOSOMAL LOCATION

Genetic locus: PLAU (human) mapping to 10q22.2.

SOURCE

uPA (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of uPA of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6830 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

uPA (C-20) is recommended for detection of β -chain and inactive 52 kDa precursor forms of uPA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

uPA (C-20) is also recommended for detection of β -chain and inactive 52 kDa precursor forms of uPA in additional species, including equine.

Suitable for use as control antibody for uPA siRNA (h): sc-36779, uPA shRNA Plasmid (h): sc-36779-SH and uPA shRNA (h) Lentiviral Particles: sc-36779-V.

Molecular Weight of uPA precursor: 55 kDa.

Molecular Weight of uPA active enzyme: 33 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224.

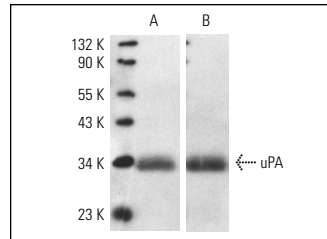
STORAGE

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

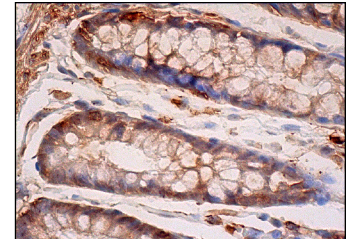
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Western blot analysis of authentic human uPA (A,B). Antibodies tested include uPA (C-20): sc-6830 (A) and uPA (M-20): sc-6831 (B).



uPA (C-20): sc-6830. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Sasaki, N., et al. 2001. Nuclear factor- κ B p65 (RelA) transcription factor is constitutively activated in human gastric carcinoma tissue. *Clin. Cancer Res.* 7: 4136-4142.
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- Piccolella, M., et al. 2008. suPAR, a soluble form of urokinase plasminogen activator receptor, inhibits human prostate cancer cell growth and invasion. *Int. J. Oncol.* 32: 185-191.
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- Santos, A., et al. 2010. Immunohistochemical analysis of urokinase plasminogen activator and its prognostic value in canine mammary tumours. *Vet. J.* 189: 43-48.
- Novotny, A., et al. 2010. A pharmacological analysis of the cholinergic regulation of urokinase-type plasminogen activator secretion in the human colon cancer cell line, HT-29. *Eur. J. Pharmacol.* 646: 22-30.
- Sakai, H., et al. 2011. Inhibition of p600 expression suppresses both invasiveness and anoikis resistance of gastric cancer. *Ann. Surg. Oncol.* 18: 2057-2065.



Try **uPA (PGM2005): sc-59729**, our highly recommended monoclonal alternative to uPA (C-20).