

AP31888PU-N**Polyclonal Antibody to uPA / PLAU - Aff - Purified****Alternate names:**

U-plasminogen activator, Urokinase, Urokinase-type plasminogen activator, Urokinase-type plasminogen activator chain B, Urokinase-type plasminogen activator long chain A, Urokinase-type plasminogen activator short chain A

Quantity:

0.5 mg

Background:

This gene encodes a serine protease involved in degradation of the extracellular matrix and possibly tumor cell migration and proliferation. A specific polymorphism in this gene may be associated with late-onset Alzheimer's disease and also with decreased affinity for fibrin-binding. This protein converts plasminogen to plasmin by specific cleavage of an Arg-Val bond in plasminogen. Plasmin in turn cleaves this protein at a Lys-Ile bond to form a two-chain derivative in which a single disulfide bond connects the amino-terminal A-chain to the catalytically active, carboxy-terminal B-chain. This two-chain derivative is also called HMW-uPA (high molecular weight uPA). HMW-uPA can be further processed into LMW-uPA (low molecular weight uPA) by cleavage of chain A into a short chain A (A1) and an amino-terminal fragment. LMW-uPA is proteolytically active but does not bind to the uPA receptor. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq]

Uniprot ID:

[P00749](#)

NCBI:

[NP_001138503.1](#)

GeneID:

[5328](#)

Host / Isotype:

Goat / IgG

Immunogen:

Extensively purified native HMW-tcuPA and LMW-scuPA (mixture 50/50), isolated from Human urine.

Pooled antisera are passed over DEAE-cellulose to produce IgG-enriched fraction, which is further subjected to absorption with immobilized total human serum proteins in order to remove non-specific antibodies.

Format:

State: Lyophilized purified IgG fraction

Purification: Affinity Chromatography: The affinity purified antibody is obtained by binding to immobilized native Human Urokinase (antigen used for immunization), followed by elution with acidic buffer, neutralization, dialysis, dispensing and lyophilization.

Buffer System: PBS with Mannitol

Reconstitution: Restore with 1 ml distilled water and add preservative if preferred.

Applications:

Immunoblotting Assays (Western, dot-blot).

Immunosorbent with the antibody can be used for Affinity purification of Urokinase in one step from biological fluids.

The antibody can be used for quantitative, specific and sensitive assay for Urokinase in Human fluids (**RIA, ELISA**) in combination with the inhibiting monoclonal antibody *clone* PGM2001 or non-inhibiting monoclonal antibody *clone* PGM2005.

It is very stable and can as such be used for conjugation with peroxydase, biotine,

FITC, etc. It can also be used in **Immunohistochemistry** on Frozen and Paraffin embedded tissue.

Recommended Dilutions:

Immunohistochemistry: 1/50.

ELISA: 1/5000 (starting dilution).

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

The antibody binds to human HMW-scuPA (54 kDa), HMW-tsuPA (52 kDa) and LMW-scuPA (33 kDa) with high apparent affinity ($K_d = 0.1$ nM) completely inhibiting the ability of urokinase to activate plasminogen. Urokinase reaction with synthetic substrate S2444 is also inhibited. The antibody is highly specific for urokinase, no crossreactions were found with other serine proteases (tissue plasminogen activator, plasmin, trypsin, chymotrypsin, elastase, thrombin). Human whole plasma or plasma proteins do not interfere with its binding to urokinase.

Species Reactivity:

Tested: Human.

Storage:

Store lyophilized at 2-8°C for 6 months or at -20°C long term.

After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.