SANTA CRUZ BIOTECHNOLOGY, INC.

uPAR (L-17): sc-9796

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The Power to Question

BACKGROUND

Urokinase plasminogen activator receptor (uPAR), also designated CD87, is a glycoprotein I-anchored surface receptor specific for urokinase plasminogen activator (uPA). Upon binding to uPAR, uPA converts the surface bound, large serum β-globulin, plasminogen to plasmin. Plasmin, which is also designated fibrinolysin, is a Trypsin- like enzyme that acts on Arg-Lys bonds and induces pericellular proteolysis in fibrin and fibrinogen, and thereby contributes to the systematic activation of the coagulation cascade. This pathway is observed during re-epithelialization of lesions, wound healing and tissue remodeling. uPA and uPAR are known to be overexpressed in mesenchymal and epithelial origin tumor cells and are required for tumor invasion and metastasis. Ras, MEK, ERK and MLCK function as downstream effectors in the uPAR-dependent signaling cascade, which is initiated by uPA binding, and promotes cellular migration in an integrin selective manner.

REFERENCES

1. Milligan, K.S. 1987. Tissue-type plasminogen activator: a new fibrinolytic agent. Heart Lung 16: 69-74.
2. Roldan, A.L., et al. 1990. Cloning and expression of the receptor for human urokinase plasminogen activator, a central molecule in cell surface, plasmin dependent proteolysis. EMBO J. 9: 467-474.
3. Behrendt, N., et al. 1990. The human receptor for urokinase plasminogen activator. NH_2-terminal amino acid sequence and glycosylation variants. J. Biol. Chem. 265: 6453-6460.
4. Solberg, H., et al. 1992. Identification and characterization of the murine cell surface receptor for the urokinase-type plasminogen activator. Eur. J. Biochem. 205: 451-458.
5. Prentice, C.R., et al. 1993. The fibrinolytic response to ancrod therapy: characterization of fibrinogen and fibrin degradation products. Br. J. Haematol. 83: 276-281.
6. Ghiso, J.A., et al. 1999. Deregulation of the signaling pathways controlling urokinase production. Its relationship with the invasive phenotype. Eur. J. Biochem. 263: 295-304.

CHROMOSOMAL LOCATION

Genetic locus: Plaur (mouse) mapping to 7 A3.

SOURCE

uPAR (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of uPAR of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-9796 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

uPAR (L-17) is recommended for detection of uPAR of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (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 uPAR siRNA (m): sc-36782, uPAR shRNA Plasmid (m): sc-36782-SH and uPAR shRNA (m) Lentiviral Particles: sc-36782-V.

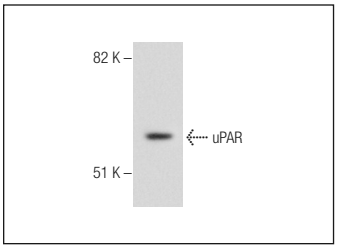
Molecular Weight of uPAR: 55-60 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



uPAR (L-17): sc-9796. Western blot analysis of uPAR expression in RAW 264.7 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Besta, F., et al. 2004. Reduced β3-endonexin levels are associated with enhanced urokinase-type plasminogen activator receptor expression in $ApoE^{-/-}$ mice. Thromb. Res. 114: 283-292.

STORAGE

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