SANTA CRUZ BIOTECHNOLOGY, INC.

# uPAR (E-3): sc-376494

SANTA CRUZ BIOTECHNOLOGY

*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.

## CHROMOSOMAL LOCATION

Genetic locus: PLAUR (human) mapping to 19q13.31.

## SOURCE

uPAR (E-3) is a mouse monoclonal antibody raised against amino acids 1-290 representing full length uPAR of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

uPAR (E-3) is available conjugated to agarose (sc-376494 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376494 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376494 PE), fluorescein (sc-376494 FITC), Alexa Fluor® 488 (sc-376494 AF488), Alexa Fluor® 546 (sc-376494 AF546), Alexa Fluor® 594 (sc-376494 AF594) or Alexa Fluor® 647 (sc-376494 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376494 AF680) or Alexa Fluor® 790 (sc-376494 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

uPAR (E-3) is recommended for detection of uPAR of human origin by Western Blotting (starting dilution 1:100, 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), 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 uPAR siRNA (h): sc-36781, uPAR shRNA Plasmid (h): sc-36781-SH and uPAR shRNA (h) Lentiviral Particles: sc-36781-V.

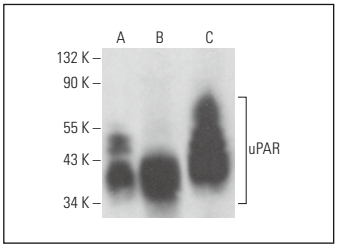
Molecular Weight of uPAR: 55-60 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, HeLa whole cell lysate: sc-2200 or NCI-H1299 whole cell lysate: sc-364234.

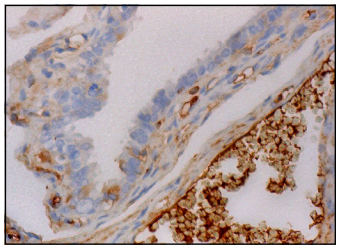
## STORAGE

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

## DATA




uPAR (E-3): sc-376494. Western blot analysis of uPAR expression in HUV-EC-C (**A**), NCI-H1299 (**B**) and HeLa (**C**) whole cell lysates.



uPAR (E-3): sc-376494. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic staining of glandular cells and staining of plasma in blood vessels.

## SELECT PRODUCT CITATIONS


1. Ding, Y., et al. 2016. Effect of urokinase-type plasminogen activator system in gastric cancer with peritoneal metastasis. Oncol. Lett. 11: 4208-4216.
2. Yang, H.L., et al. 2017. Lucidone promotes the cutaneous wound healing process via activation of the $PI_3K$/Akt, Wnt/β-catenin and NFκB signaling pathways. Biochim. Biophys. Acta 1864: 151-168.
3. Viedma-Rodríguez, R., et al. 2020. Epithelial mesenchymal transition and progression of breast cancer promoted by diabetes mellitus in mice are associated with increased expression of glycolytic and proteolytic enzymes. Horm. Cancer 11: 170-181.
4. Elhussieny, A., et al. 2021. Mesenchymal stem cells derived from human induced pluripotent stem cells improve the engraftment of myogenic cells by secreting urokinase-type plasminogen activator receptor (uPAR). Stem Cell Res. Ther. 12: 532.
5. Pesce, N.A., et al. 2024. Mitigation of human iris angiogenesis through uPAR/LRP-1 interaction antagonism in an organotypic *ex vivo* model. FASEB J. 38: e23533.


## RESEARCH USE

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

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.