SANTA CRUZ BIOTECHNOLOGY, INC.

ARAP1 (A-3): sc-393138

BACKGROUND

ARAP1 (ARFGAP, Rho GAP, Ankyrin repeat and pleckstrin homology domains-containing protein 1), also designated Centaurin δ2 (CENTD2), contains ARFGAP, Rho GAP, Ankyrin repeat, Ras-associating and pleckstrin homology domains. ARAP1 displays Rho GAP and phosphatidylinositol (3,4,5) trisphosphate (PIP3)-dependent ARFGAP activity. It associates with the Golgi, and the ARFGAP activity mediates changes in the Golgi and the formation of filopodia. The Rho GAP activity may mediate cell rounding and loss of stress fibers. At least three transcript variants encoding different isoforms have been found for this gene. ARAP1 can associate with G protein receptor Angiotensin 1 (AT1) and influences recycling of the AT1 receptor to the plasma membrane. ARAP1 transcript levels are abundant in ovary, lung, liver and kidney. Northern blots indicate a ubiquitous 5.5 kb ARAP1 transcript and an additional 7 kb transcript present in heart and skeletal muscle.

REFERENCES

1. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XI. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 277-286.
2. Jacques, K.M., et al. 2002. ARF1 dissociates from the clathrin adaptor GGA prior to being inactivated by ARF GTPase-activating proteins. J. Biol. Chem. 277: 47235-47241.
3. Miura, K., et al. 2002. ARAP1: a point of convergence for ARF and Rho signaling. Mol. Cell 9: 109-119.

CHROMOSOMAL LOCATION

Genetic locus: ARAP1 (human) mapping to 11q13.4; Arap1 (mouse) mapping to 7 E3.

SOURCE

ARAP1 (A-3) is a mouse monoclonal antibody raised against amino acids 809-928 mapping within an internal region of ARAP1 of human origin.

PRODUCT

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

ARAP1 (A-3) is available conjugated to agarose (sc-393138 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393138 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393138 PE), fluorescein (sc-393138 FITC), Alexa Fluor® 488 (sc-393138 AF488), Alexa Fluor® 546 (sc-393138 AF546), Alexa Fluor® 594 (sc-393138 AF594) or Alexa Fluor® 647 (sc-393138 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393138 AF680) or Alexa Fluor® 790 (sc-393138 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

ARAP1 (A-3) is recommended for detection of ARAP1 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ARAP1 siRNA (h): sc-44444, ARAP1 siRNA (m): sc-45742, ARAP1 shRNA Plasmid (h): sc-44444-SH, ARAP1 shRNA Plasmid (m): sc-45742-SH, ARAP1 shRNA (h) Lentiviral Particles: sc-44444-V and ARAP1 shRNA (m) Lentiviral Particles: sc-45742-V.

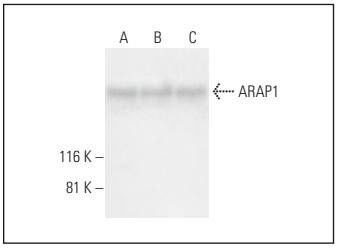
Molecular Weight of ARAP1: 136 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ARAP1 (A-3): sc-393138. Western blot analysis of ARAP1 expression in K-562 (**A**), HeLa (**B**) and NIH/3T3 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Li, X., et al. 2020. LncRNA ARAP1-AS2 promotes high glucose-induced human proximal tubular cell injury via persistent transactivation of the EGFR by interacting with ARAP1. J. Cell. Mol. Med. 24: 12994-13009.
2. Li, X., et al. 2023. YY1-induced upregulation of LncRNA-ARAP1-AS2 and ARAP1 promotes diabetic kidney fibrosis via aberrant glycolysis associated with EGFR/PKM2/HIF-1α pathway. Front. Pharmacol. 14: 1069348.

RESEARCH USE

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