

ARAP2 (S-13): sc-51031

BACKGROUND

The ADP-ribosylation factor (ARF) family of small GTP-binding proteins are involved in vesicular transport regulation and in controlling cytoskeletal organization and cell adhesion. These proteins are best characterized as regulators of membrane traffic. The Centaurin GTPase-activating protein family comprise a subset of ARF regulatory molecules that transduce PI 3-kinase activation into coordinated control of ARF-dependent pathways. This family includes ARAP2, a GTPase-activating protein that controls Actin cytoskeleton remodeling by regulating Rho ARF family members. The ARAP2 protein localizes to the cytoplasm and is expressed in various tissues including brain, thymus, lymph node, thyroid, spinal cord, trachea, heart, skeletal muscle, spleen, kidney, liver, placenta, lung and peripheral blood leukocytes. It contains one ARF-GAP domain, five PH domains, one Ras-associating domain, one Rho-GAP domain and one SAM (sterile α motif) domain.

REFERENCES

- Nagase, T., Ishikawa, K., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1998. Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 31-39.
- Krugmann, S., Anderson, K.E., Ridley, S.H., Risso, N., McGregor, A., Coadwell, J., Davidson, K., Eguinoa, A., Ellison, C.D., Lipp, P., Manifava, M., Ktistakis, N., Painter, G., Thuring, J.W., Cooper, M.A., Lim, Z.Y., Holmes, A.B., et al. 2002. Identification of ARAP3, a novel PI3K effector regulating both ARF and Rho GTPases, by selective capture on phosphoinositide affinity matrices. Mol. Cell 9: 95-108.
- Miura, K., Jacques, K.M., Stauffer, S., Kubosaki, A., Zhu, K., Hirsch, D.S., Resau, J., Zheng, Y. and Randazzo, P.A. 2002. ARAP1: a point of convergence for ARF and Rho signaling. Mol. Cell 9: 109-119.
- Santy, L.C. and Casanova, J.E. 2002. GTPase signaling: bridging the GAP between ARF and Rho. Curr. Biol. 12: R360-362.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606645. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: ARAP2 (human) mapping to 4p14; Arap2 (mouse) mapping to 5 C3.1.

SOURCE

ARAP2 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARAP2 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-51031 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARAP2 (S-13) is recommended for detection of ARAP2 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ARAP2 siRNA (h): sc-60198, ARAP2 siRNA (m): sc-60199, ARAP2 shRNA Plasmid (h): sc-60198-SH, ARAP2 shRNA Plasmid (m): sc-60199-SH, ARAP2 shRNA (h) Lentiviral Particles: sc-60198-V and ARAP2 shRNA (m) Lentiviral Particles: sc-60199-V.

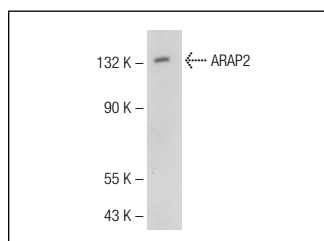
Molecular Weight of ARAP2: 190 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214

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



ARAP2 (S-13): sc-51031. Western blot analysis of ARAP2 expression in KNRK whole cell lysate.

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.

PROTOCOLS

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