

ARAP3 (T-16): sc-66328



The Power to Question

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. ARAP3 (ankyrin repeat and pleckstrin homology domain-containing protein 3), also known as centaurin- $\delta 3$ (Cnt- $\delta 3$), acts as a GTPase activating protein for ARF and Rho G proteins. ARAP3 consists of a Ras association (RA) domain, five pleckstin homology (PH) domains, three ankyrin repeats, a sterile α motif (SAM) domain, a Rho-GAP domain and an Arf-GAP domain. ARAP3 localizes to the cytoplasm and is ubiquitously expressed, with highest expression in peripheral blood leukocytes.

REFERENCES

1. Krugmann, S., 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.
2. Lu, Q., et al. 2004. EST-based genome-wide gene inactivation identifies ARAP3 as a host protein affecting cellular susceptibility to anthrax toxin. *Proc. Natl. Acad. Sci. USA* 101: 17246-17251.
3. I, S.T., et al. 2004. ARAP3 is transiently tyrosine phosphorylated in cells attaching to fibronectin and inhibits cell spreading in a Rho GAP-dependent manner. *J. Cell Sci.* 117: 6071-6084.
4. Krugmann, S., et al. 2004. ARAP3 is a PI3K- and rap-regulated GAP for RhoA. *Curr. Biol.* 14: 1380-1384.
5. Logan, M.R., et al. 2006. Regulation of the actin cytoskeleton by PIP2 in cytokinesis. *Biol. Cell* 98: 377-388.
6. Krugmann, S., et al. 2006. ARAP3 is essential for formation of lamellipodia after growth factor stimulation. *J. Cell Sci.* 119: 425-432.
7. Lindmo, K., et al. 2006. Regulation of membrane traffic by phosphoinositide 3-kinases. *J. Cell Sci.* 119: 605-614.
8. Krugmann, S., et al. 2006. Purification of ARAP3 and characterization of GAP activities. *Methods Enzymol.* 406: 91-103.

CHROMOSOMAL LOCATION

Genetic locus: ARAP3 (human) mapping to 5q31.3; Arap3 (mouse) mapping to 18 B3.

SOURCE

ARAP3 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARAP3 of human origin.

STORAGE

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

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-66328 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARAP3 (T-16) is recommended for detection of ARAP3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

ARAP3 (T-16) is also recommended for detection of ARAP3 in additional species, including canine, bovine and porcine.

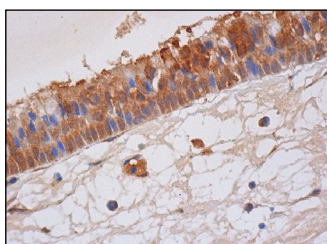
Suitable for use as control antibody for ARAP3 siRNA (h): sc-61988, ARAP3 siRNA (m): sc-61989, ARAP3 shRNA Plasmid (h): sc-61988-SH, ARAP3 shRNA Plasmid (m): sc-61989-SH, ARAP3 shRNA (h) Lentiviral Particles: sc-61988-V and ARAP3 shRNA (m) Lentiviral Particles: sc-61989-V.

Molecular Weight of ARAP3: 170 kDa.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ARAP3 (T-16): sc-66328. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing cytoplasmic staining of respiratory epithelial cells.

RESEARCH USE

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