SANTA CRUZ BIOTECHNOLOGY, INC.

ARFGAP1/3 (C-15): sc-46779

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptor kinases (GRKs) are activated by activated G protein-coupled receptors. GRKs function to phosphorylate and inactivate cell surface receptors in the heterotrimeric G protein signaling cascade. GIT1 (for GRK-interactor 1) and GIT2 are GTPase-activating proteins (GAPs) for members of the ADP ribosylation factor (ARF) family of small GTP-binding proteins, which are involved in vesicular trafficking. Another member of the ARF family, the cytoplasmic ARFGAP (ADP-ribosylation factor GTPase-activating protein) 1/3 protein, is involved in the dissociation of coat proteins from Golgi-derived membranes and vesicles. ARFGAP1/3, a cytoplasmic protein localizing to the perinuclear region, plays a role in protein secretion and vesicle transport and promotes hydrolysis of GTP bound to ARF1. The activity of the ARFGAP1/3 protein is phospholipid sensitive. It is primarily expressed in endocrine glands and testis, but is also highly expressed in adult brain, thymus and lung.

REFERENCES

1. Zhang, C., et al. 2000. Characterization, chromosomal assignment, and tissue expression of a novel human gene belonging to the ARFGAP family. Genomics 63: 400-408.
2. Turner, C.E., et al. 2001. Paxillin-ARFGAP signaling and the cytoskeleton. Curr. Opin. Cell Biol. 13: 593-599.
3. Liu, X., et al. 2001. Functional characterization of novel human ARFGAP3. FEBS Lett. 490: 79-83.
4. Collins, J.E., et al. 2004. A genome annotation-driven approach to cloning the human ORFeome. Genome Biol. 5: R84.
5. Yoon, H.Y., et al. 2004. Differences between AGAP1, ASAP1 and ARFGAP1 in substrate recognition: interaction with the N-terminus of ARF1. Cell. Signal. 16: 1033-1044.
6. SWISS-PROT/TrEMBL (Q9NP61). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: ARFGAP1 (human) mapping to 20q13.33, ARFGAP3 (human) mapping to 22q13.2; Arfgap1 (mouse) mapping to 2 H4, Arfgap3 (mouse) mapping to 15 E1.

SOURCE

ARFGAP1/3 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ARFGAP1 and ARFGAP3 of human 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-46779 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARFGAP1/3 (C-15) is recommended for detection of ARFGAP1/3 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).

Suitable for use as control antibody for ARFGAP1/3 siRNA (h): sc-60200, ARFGAP1/3 siRNA (m): sc-60201, ARFGAP1/3 shRNA Plasmid (h): sc-60200-SH, ARFGAP1/3 shRNA Plasmid (m): sc-60201-SH, ARFGAP1/3 shRNA (h) Lentiviral Particles: sc-60200-V and ARFGAP1/3 shRNA (m) Lentiviral Particles: sc-60201-V.

Molecular Weight of ARFGAP1: 44 kDa.

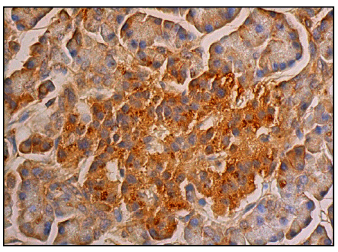
Molecular Weight of ARFGAP3: 57 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse testis extract: sc-2405 or NTERA-2 whole cell lysate.

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



ARFGAP1/3 (C-15): sc-46779. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

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.