SANTA CRUZ BIOTECHNOLOGY, INC.

ARFGAP1/3 (D-8): sc-365418

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptor kinases (GRKs) are activated by activated G protein-coupled receptors, and they 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.

CHROMOSOMAL LOCATION

Genetic locus: ARFGAP3 (human) mapping to 22q13.2; Arfgap3 (mouse) mapping to 15 E1.

SOURCE

ARFGAP1/3 (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 145-169 near the N-terminus of ARFGAP1/3 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ARFGAP1/3 (D-8) is available conjugated to agarose (sc-365418 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365418 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365418 PE), fluorescein (sc-365418 FITC), Alexa Fluor® 488 (sc-365418 AF488), Alexa Fluor® 546 (sc-365418 AF546), Alexa Fluor® 594 (sc-365418 AF594) or Alexa Fluor® 647 (sc-365418 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365418 AF680) or Alexa Fluor® 790 (sc-365418 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365418 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ARFGAP1/3 (D-8) is recommended for detection of ARFGAP1/3 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 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: 45 kDa.

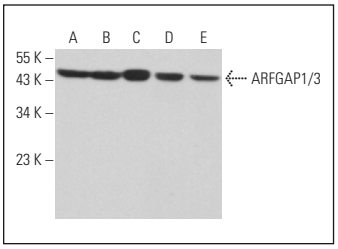
Molecular Weight of ARFGAP3: 57 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, A549 cell lysate: sc-2413 or PC-3 cell lysate: sc-2220.

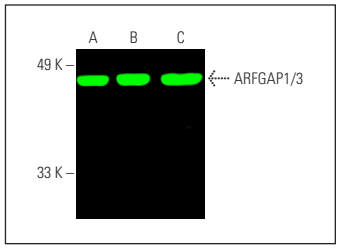
RECOMMENDED SUPPORT REAGENTS

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



ARFGAP1/3 (D-8): sc-365418. Western blot analysis of ARFGAP1/3 expression in Hep G2 (**A**), SJRH30 (**B**), PC-3 (**C**) and L6 (**D**) whole cell lysates and mouse testis tissue extract (**E**).



ARFGAP1/3 (D-8): sc-365418. Near-Infrared western blot analysis of ARFGAP1/3 expression in Hep G2 (**A**), A549 (**B**) and Jurkat (**C**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

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.