

ARFGAP1/3 (N-20): sc-46784

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.
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.

CHROMOSOMAL LOCATION

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

SOURCE

ARFGAP1/3 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ARFGAP1/3 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-46784 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ARFGAP1/3 (N-20) 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), 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).

ARFGAP1/3 (N-20) is also recommended for detection of ARFGAP1/3 in additional species, including canine and bovine.

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.

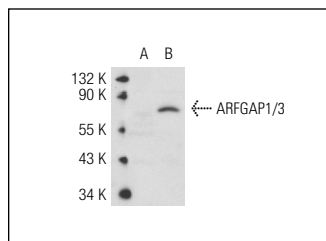
Molecular Weight of ARFGAP3: 57 kDa.

Positive Controls: ARFGAP1/3 (h4): 293T Lysate: sc-174378, HeLa whole cell lysate: sc-2200 or mouse testis extract: sc-2405.

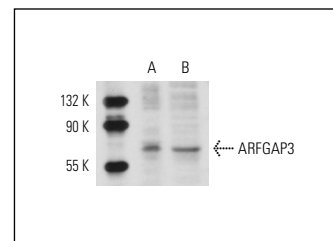
RECOMMENDED SECONDARY REAGENTS

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



ARFGAP1/3 (N-20): sc-46784. Western blot analysis of ARFGAP1/3 expression in non-transfected: sc-117752 (A) and human ARFGAP1/3 transfected: sc-174378 (B) 293T whole cell lysates.



ARFGAP1/3 (N-20): sc-46784. Western blot analysis of ARFGAP3 expression in HeLa whole cell lysate (A) and mouse testis tissue extract (B).

RESEARCH USE

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