SANTA CRUZ BIOTECHNOLOGY, INC.

ARFGAP2 (B-6): sc-398537

BACKGROUND

The ADP-ribosylation factor (ARF) protein family are structurally and functionally conserved members of the Ras superfamily of regulatory GTP-binding proteins. ARFs influence vesicle trafficking and signal transduction in eukaryotic cells. ARF-dependent regulatory mechanisms include the coordination of spectrin interactions with Golgi membranes and the association of Actin to the Golgi via Rho family-dependent G-protein localization and WASP/Arp2/3 complexes. Additionally, ARFs play a central role in maintenance of organelle integrity, assembly of coat proteins and activation of phospholipase D (PC-PLD). ZNF289 (zinc-finger protein 289), also known as ARFGAP2 (ADP-ribosylation factor GTPase activating protein 2), IRZ, Zfp289 or Nbla10535, functions as a GTPase-activating protein (GAP) for ARF family proteins. Localizing to the cytoplasmic side of the Golgi apparatus, ZNF289 contains one ARF-GAP domain and is found associated with COP-I-coated vesicles.

REFERENCES

1. Randazzo, P.A., et al. 1994. The amino-terminus of ADP-ribosylation factor (ARF) 1 is essential for interaction with Gs and ARF GTPase-activating protein. J. Biol. Chem. 269: 29490-29494.
2. Amor, J.C., et al. 1994. Structure of the human ADP-ribosylation factor 1 complexed with GDP. Nature 372: 704-708.
3. Godi, A., et al. 1998. ADP ribosylation factor regulates spectrin binding to the Golgi complex. Proc. Natl. Acad. Sci. USA 95: 8607-8612.
4. Fucini, R.V., et al. 2000. Activated ADP-ribosylation factor assembles distinct pools of Actin on Golgi membranes. J. Biol. Chem. 275: 18824-18829.
5. Singh, J., et al. 2001. Molecular cloning and characterization of a zinc-finger protein involved in Id-1-stimulated mammary epithelial cell growth. J. Biol. Chem. 276: 11852-11858.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606908. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Watson, P.J., et al. 2004. γ-COP appendage domain—structure and function. Traffic 5: 79-88.
8. Frigerio, G., et al. 2007. Two human ARFGAPs associated with COP-I-coated vesicles. Traffic 8: 1644-1655.

CHROMOSOMAL LOCATION

Genetic locus: ARFGAP2 (human) mapping to 11p11.2; Arfgap2 (mouse) mapping to 2 E1.

SOURCE

ARFGAP2 (B-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 373-414 within an internal region of ARFGAP2 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 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398537 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ARFGAP2 (B-6) is recommended for detection of ARFGAP2 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 ARFGAP2 siRNA (h): sc-96479, ARFGAP2 siRNA (m): sc-108058, ARFGAP2 shRNA Plasmid (h): sc-96479-SH, ARFGAP2 shRNA Plasmid (m): sc-108058-SH, ARFGAP2 shRNA (h) Lentiviral Particles: sc-96479-V and ARFGAP2 shRNA (m) Lentiviral Particles: sc-108058-V.

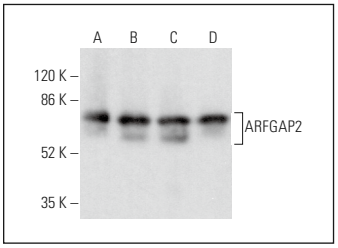
Molecular Weight of ARFGAP2: 57 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Ramos cell lysate: sc-2216 or U-251-MG whole cell lysate: sc-364176.

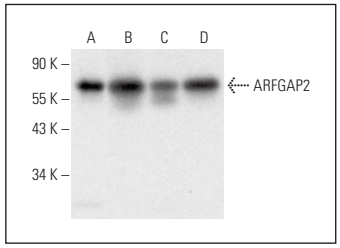
RECOMMENDED SUPPORT REAGENTS

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



ARFGAP2 (B-6): sc-398537. Western blot analysis of ARFGAP2 expression in HeLa (**A**), Raji (**B**), RAW 264.7 (**C**) and TK-1 (**D**) whole cell lysates.



ARFGAP2 (B-6): sc-398537. Western blot analysis of ARFGAP2 expression in HeLa (**A**), Ramos (**B**), RT-4 (**C**) and U-251-MG (**D**) whole cell lysates.

RESEARCH USE

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