

ARFGAP2 (C-5): sc-376998

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

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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.
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CHROMOSOMAL LOCATION

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

SOURCE

ARFGAP2 (C-5) is a mouse monoclonal antibody raised against amino acids 311-430 mapping near the C-terminus of ARFGAP2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ARFGAP2 (C-5) 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 μ g per 100-500 μ g 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.

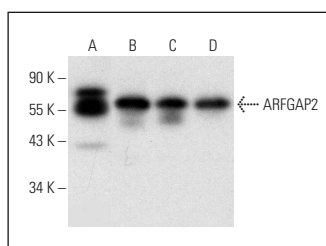
Molecular Weight of ARFGAP2: 57 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Ramos cell lysate: sc-2216 or RT-4 whole cell lysate: sc-364257.

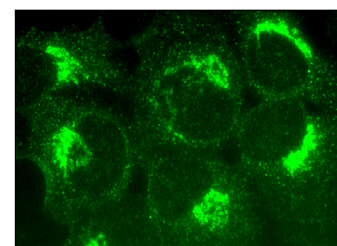
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 (C-5): sc-376998. Western blot analysis of ARFGAP2 expression in Hep G2 (A), Ramos (B), RT-4 (C) and U-251-MG (D) whole cell lysates.



ARFGAP2 (C-5): sc-376998. Immunofluorescence staining of methanol-fixed HeLa cells showing Golgi apparatus localization.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.