

ARFGAP2 (H-120): sc-292671

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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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 (H-120) is a rabbit polyclonal antibody raised against amino acids 311-430 mapping near the C-terminus of ARFGAP2 of human origin.

PRODUCT

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

APPLICATIONS

ARFGAP2 (H-120) is recommended for detection of ARFGAP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

ARFGAP2 (H-120) is also recommended for detection of ARFGAP2 in additional species, including canine.

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 nuclear extract: sc-2120, Hep G2 cell lysate: sc-2227 or mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.