

ARFGAP2 (h): 293T Lysate: sc-176858

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 ARFGAP 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.

CHROMOSOMAL LOCATION

Genetic locus: ARFGAP2 (human) mapping to 11p11.2.

PRODUCT

ARFGAP2 (h): 293T Lysate represents a lysate of human ARFGAP2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

ARFGAP2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive ARFGAP2 antibodies. Recommended use: 10-20 μ l per lane.

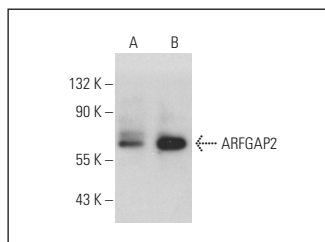
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ARFGAP2 (RG-7): sc-100979 is recommended as a positive control antibody for Western Blot analysis of enhanced human ARFGAP2 expression in ARFGAP2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



ARFGAP2 (RG-7): sc-100979. Western blot analysis of ARFGAP2 expression in non-transfected: sc-117752 (A) and human ARFGAP2 transfected: sc-176858 (B) 293T whole cell lysates.

RESEARCH USE

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