

# ARFGAP2 (E-16): sc-132627

## 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.  $\gamma$ -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 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping 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  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132627 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ARFGAP2 (E-16) 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  $\mu$ g per 100-500  $\mu$ 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); non cross-reactive with family members ARFGAP1 or ARFGAP3.

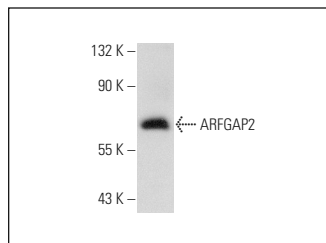
ARFGAP2 (E-16) is also recommended for detection of ARFGAP2 in additional species, including equine, canine, bovine, porcine and avian.

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

## DATA



ARFGAP2 (E-16): sc-132627. Western blot analysis of ARFGAP2 expression in mouse brain tissue extract.

## RESEARCH USE

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



Try **ARFGAP2 (F-11): sc-377049** or **ARFGAP2 (C-5): sc-376998**, our highly recommended monoclonal alternatives to ARFGAP2 (E-16).