

ARFGAP2 (F-11): sc-377049

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 cyto-plasmic 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 G_s 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.

CHROMOSOMAL LOCATION

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

SOURCE

ARFGAP2 (F-11) 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 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ARFGAP2 (F-11) is available conjugated to agarose (sc-377049 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377049 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377049 PE), fluorescein (sc-377049 FITC), Alexa Fluor® 488 (sc-377049 AF488), Alexa Fluor® 546 (sc-377049 AF546), Alexa Fluor® 594 (sc-377049 AF594) or Alexa Fluor® 647 (sc-377049 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377049 AF680) or Alexa Fluor® 790 (sc-377049 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

ARFGAP2 (F-11) 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), immunohistochemistry (including paraffin-embedded sections) (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.

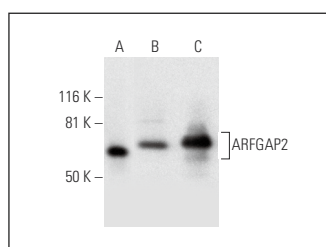
Molecular Weight of ARFGAP2: 57 kDa.

Positive Controls: mouse brain extract: sc-2253, HeLa nuclear extract: sc-2120 or human brain extract: sc-364375.

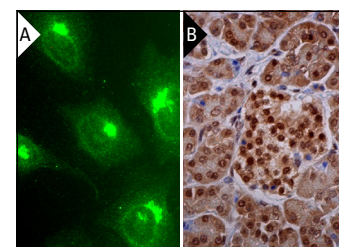
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ARFGAP2 (F-11): sc-377049. Western blot analysis of ARFGAP2 expression in human brain (A) and mouse brain (B) tissue extracts and HeLa nuclear extract (C).



ARFGAP2 (F-11): sc-377049. Immunofluorescence staining of methanol-fixed HeLa cells showing Golgi apparatus and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear and cytoplasmic staining of exocrine glandular cells and islets of Langerhans (B).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.