

ARF (H-50): sc-9063

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 (Rac, CDC42) and WASP/Arp2/3 complexes. Additionally, ARFs play a central role in maintenance of organelle integrity, assembly of coat proteins, and activation of phospho-lipase D. The ARF proteins are categorized as class I (ARF1, ARF2, and ARF3), class II (ARF4 and ARF5) and class III (ARF6); members of each class share a common gene organization.

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. Erickson, J.W., et al. 1996. Mammalian Cdc42 is a brefeldin A-sensitive component of the Golgi apparatus. *J. Biol. Chem.* 271: 26850-26854.
4. Godi, A. et al. 1998. ADP ribosylation factor regulates spectrin binding to the Golgi complex. *PNAS* 95: 8607-8612.

SOURCE

ARF (H-50) is a rabbit polyclonal antibody raised against amino acids 128-177 mapping near the C-terminus of ADP-ribosylation factor 1(ARF) of human origin.

PRODUCT

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

Available as phycoerythrin (sc-9063 PE) conjugate for flow cytometry, 100 tests.

APPLICATIONS

ARF (H-50) is recommended for detection of ARF family proteins of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ARF (H-50) is also recommended for detection of ARF family proteins in additional species, including equine, canine, bovine, porcine and avian.

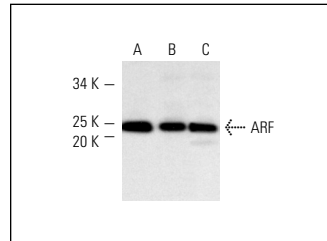
Molecular Weight of ARF: 21 kDa.

Positive Controls: ARF1 (h): 293T Lysate: sc-113571, Caki-1 cell lysate: sc-2224 or KNRK whole cell lysate: sc-2214.

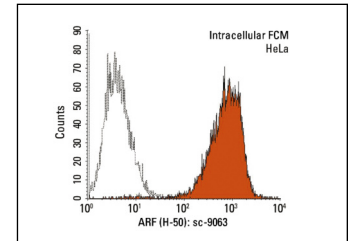
STORAGE

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

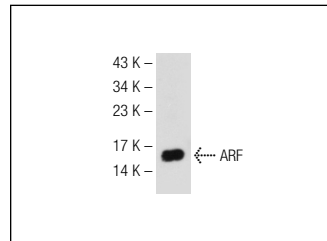
DATA



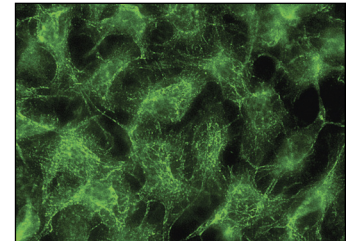
ARF (H-50): sc-9063. Western blot analysis of ARF expression in HeLa (A), Caki-1 (B) and KNRK (C) whole cell lysates.



ARF (H-50) PE: sc-9063 PE. Intracellular FCM analysis of fixed and permeabilized HeLa cells. Black line histogram represents the isotype control, normal rabbit IgG: sc-3871.



ARF (H-50): sc-9063. Western blot analysis of ARF expression in mouse placenta tissue extract.



ARF (H-50): sc-9063. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Wang, J.P., et al. 2002. 2-Benzyloxybenzaldehyde inhibits formyl-methionyl-leucyl-phenylalanine stimulation of phospholipase D activation in rat neutrophils. *Biochim. Biophys. Acta* 1573: 26-32.
2. Wang, J.P., et al. 2002. Inhibition of superoxide anion generation by YC-1 in rat neutrophils through cyclic GMP-dependent and -independent mechanisms. *Biochem. Pharmacol.* 63: 577-585.
3. Wang, J.P., et al. 2002. Inhibition of formyl-methionyl-leucyl-phenylalanine stimulated respiratory burst by cirsimaritin involves inhibition of phospholipase D signaling in rat neutrophils. *Naunyn Schmiedebergs Arch. Pharmacol.* 366: 307-314.
4. Chang, L.C., et al. 2003. Inhibition of formyl-methionyl-leucyl-phenylalanine stimulated phospholipase D activation in rat neutrophils by the synthetic isoquinoline DMDI. *Biochim. Biophys. Acta* 1620: 191-198.
5. Wang, J.P., et al. 2003. The blockade of formyl peptide-induced respiratory burst by 2',5'-dihydroxy-2-furfurylchalcone involves phospholipase D signaling in neutrophils. *Naunyn Schmiedebergs Arch. Pharmacol.* 368: 166-174.

RESEARCH USE

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