SANTA CRUZ BIOTECHNOLOGY, INC.

ARF (H-50): sc-9063

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 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. Erickson, J.W., et al. 1996. Mammalian Cdc42 is a brefeldin A-sensitive component of the Golgi apparatus. J. Biol. Chem. 271: 26850-26854.

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.

ARF (H-50) is available conjugated to phycoerythrin (sc-9063 PE), 200 µg/ml, for IF, IHC(P) and FCM..

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 10^6 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: HeLa whole cell lysate: sc-2200, Caki-1 cell lysate: sc-2224 or KNRK whole cell lysate: sc-2214.

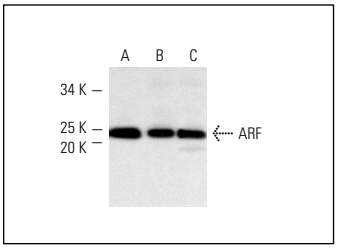
STORAGE

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

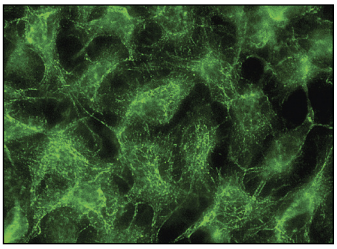
RESEARCH USE

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

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): 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.
6. Riebeling, C., et al. 2003. Expression and regulation of phospholipase D isoenzymes in human melanoma cells and primary melanocytes. Melanoma Res. 13: 555-562.
7. Anthonio, E.A., et al. 2009. Small G proteins in peroxisome biogenesis: the potential involvement of ADP-ribosylation factor 6. BMC Cell Biol. 10: 58.

PROTOCOLS

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