SANTA CRUZ BIOTECHNOLOGY, INC.

ARFRP1 (A-8): sc-398568

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 and they play a central role in the maintenance of organelle integrity, assembly of coat proteins and activation of phospholipase D (PC-PLD). ARFRP1 (ADP-ribosylation factor related protein 1), also known as ARP or ARL18, is a 201 amino acid membrane-associated GTPase that localizes to the plasma membrane and the Golgi apparatus and is related to the ARF family of regulatory proteins. Expressed in a variety of tissues, ARFRP1 interacts with SYS1 and is thought to be involved in plasma membrane-related signaling events. ARFRP1 exists as multiple alternatively spliced isoforms and is encoded by a gene which maps to a gene cluster on chromosome 20 that is commonly overexpressed in tumors, suggesting a role for ARFRP1 in carcinogenesis.

REFERENCES

1. Schürmann, A., et al. 1995. ARP is a plasma membrane-associated Ras-related GTPase with remote similarity to the family of ADP-ribosylation factors. J. Biol. Chem. 270: 30657-30663.
2. Schürmann, A., et al. 1999. The ADP-ribosylation factor (ARF)-related GTPase ARF-related protein binds to the ARF-specific guanine nucleotide exchange factor cytohesin and inhibits the ARF-dependent activation of phospholipase D. J. Biol. Chem. 274: 9744-9751.
3. Bai, C., et al. 2000. Overexpression of M68/DcR3 in human gastrointestinal tract tumors independent of gene amplification and its location in a four-gene cluster. Proc. Natl. Acad. Sci. USA 97: 1230-1235.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604699. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: ARFRP1 (human) mapping to 20q13.33; Arfrp1 (mouse) mapping to 2 H4.

SOURCE

ARFRP1 (A-8) is a mouse monoclonal antibody raised against amino acids 137-201 mapping at the C-terminus of ARFRP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ARFRP1 (A-8) is available conjugated to agarose (sc-398568 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398568 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398568 PE), fluorescein (sc-398568 FITC), Alexa Fluor® 488 (sc-398568 AF488), Alexa Fluor® 546 (sc-398568 AF546), Alexa Fluor® 594 (sc-398568 AF594) or Alexa Fluor® 647 (sc-398568 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398568 AF680) or Alexa Fluor® 790 (sc-398568 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ARFRP1 (A-8) is recommended for detection of ARFRP1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ARFRP1 siRNA (h): sc-72531, ARFRP1 siRNA (m): sc-141192, ARFRP1 shRNA Plasmid (h): sc-72531-SH, ARFRP1 shRNA Plasmid (m): sc-141192-SH, ARFRP1 shRNA (h) Lentiviral Particles: sc-72531-V and ARFRP1 shRNA (m) Lentiviral Particles: sc-141192-V.

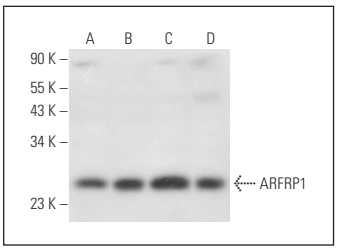
Molecular Weight of ARFRP1: 25 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, SK-OV-3 whole cell lysate: sc-364229 or Hep G2 cell lysate: sc-2227.

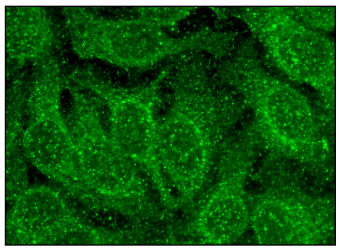
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ARFRP1 (A-8): sc-398568. Western blot analysis of ARFRP1 expression in HEK293T (**A**), Hep G2 (**B**), SK-OV-3 (**C**) and Jurkat (**D**) whole cell lysates.



ARFRP1 (A-8): sc-398568. Immunofluorescence staining of methanol-fixed HeLa cells showing Golgi apparatus localization.

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.

PROTOCOLS

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