



arfaptin 1 (N-20): sc-19245

BACKGROUND

ADP-ribosylation factors, or ARFs, enhance the ADP ribosyltransferase activity of cholera toxin and are implicated in vesicle transport between endoplasmic reticulum and the Golgi complex. Arfaptin 1, with a calculated molecular mass of 38.6 kDa, is recruited from the cytosol to Golgi membranes by ARFs in a guanosine 5-prime-O-(3-thiotriphosphate)-dependent and brefeldin A-sensitive manner but is not a constituent of coatomer. Arfaptin 1 binds to nonmyristoylated GTP-bound ARF3, but not to GDP-bound ARF3, and also to ARF1, another class I ARF. It binds with lower affinity to ARF5, a class II ARF, and with very little affinity to ARF6, a class III ARF. POR1 (also designated arfaptin 2) was first isolated as a Rac 1 binding protein necessary for Rac mediated actin polymerization and the subsequent formation of membrane ruffles and lamellipodia. POR1 has also been shown to interact with the ADP ribosylation factor ARF6, a GTPase that associates with the plasma membrane and intracellular endosome vesicles, in a GTP dependent manner. The association of POR1 with ARF6 stimulates induction of actin polymerization. POR1 appears to play a regulatory role through multiple signaling pathways in the reorganization of the cytoskeletal structure.

REFERENCES

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4. D'Souza-Schorey, C., Boshans, R.L., McDonough, M., Stahl, P.D. and Van Aelst, L. 1997. A role for POR1, a Rac1- interacting protein, in ARF6-mediated cytoskeletal rearrangements. *EMBO J.* 16: 5445-5454.
5. D'Souza-Schorey, C., van Donselaar, E., Hsu, V.W., Yang, C., Stahl, P.D. and Peters, P.J. 1998. ARF6 targets recycling vesicles to the plasma membrane: insights from an ultrastructural investigation. *J. Cell. Biol.* 140: 603-616.
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SOURCE

arfaptin 1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of arfaptin 1 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.

Blocking peptide available for competition studies, sc-19245 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

arfaptin 1 (N-20) is recommended for detection of arfaptin 1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for arfaptin 1 siRNA (h): sc-41190, arfaptin 1 siRNA (m): sc-41191, arfaptin 1 shRNA Plasmid (h): sc-41190-SH, arfaptin 1 shRNA Plasmid (m): sc-41191-SH, arfaptin 1 shRNA (h) Lentiviral Particles: sc-41190-V and arfaptin 1 shRNA (m) Lentiviral Particles: sc-41191-V.

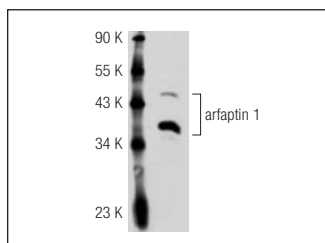
Molecular Weight of arfaptin 1: 44 kDa.

Positive Controls: JAR cell lysate: sc-2276 or mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



arfaptin 1 (N-20): sc-19245. Western blot analysis of arfaptin 1 expression in JAR whole cell lysate.

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 or our catalog for detailed protocols and support products.