

POR1 (N-19): sc-9799

BACKGROUND

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

1. Van Aelst, L., et al. 1996. Identification of a novel Rac 1-interacting protein involved in membrane ruffling. *EMBO J.* 15: 3778-3786.
2. Joneson, T., et al. 1996. Rac regulation of Actin polymerization and proliferation by a pathway distinct from Jun kinase. *Science* 274: 1374-1376.
3. D'Souza-Schorey, C., et al. 1997. A role for POR1, a Rac 1-interacting protein, in ARF6-mediated cytoskeletal rearrangements. *EMBO J.* 16: 5445-5454.
4. D'Souza-Schorey, C., et al. 1998. ARF6 targets recycling vesicles to the plasma membrane: insights from an ultrastructural investigation. *J. Cell Biol.* 140: 603-616.
5. Gauthier-Rouviere, C., et al. 1998. Rho G GTPase controls a pathway that independently activates Rac 1 and Cdc42Hs. *Mol. Biol. Cell* 9: 1379-1394.
6. Radhakrishna, H., et al. 1999. ARF6 requirement for Rac ruffling suggests a role for membrane trafficking in cortical Actin rearrangements. *J. Cell Sci.* 112: 855-866.

CHROMOSOMAL LOCATION

Genetic locus: ARFIP2 (human) mapping to 11p15.4; Arfp2 (mouse) mapping to 7 E3.

SOURCE

POR1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of POR1 of mouse 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-9799 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

POR1 (N-19) is recommended for detection of POR1 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).

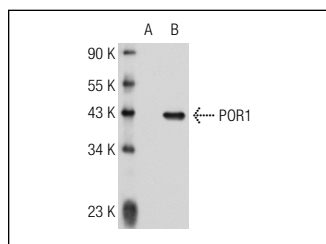
POR1 (N-19) is also recommended for detection of POR1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for POR1 siRNA (h): sc-41192, POR1 siRNA (m): sc-41193, POR1 shRNA Plasmid (h): sc-41192-SH, POR1 shRNA Plasmid (m): sc-41193-SH, POR1 shRNA (h) Lentiviral Particles: sc-41192-V and POR1 shRNA (m) Lentiviral Particles: sc-41193-V.

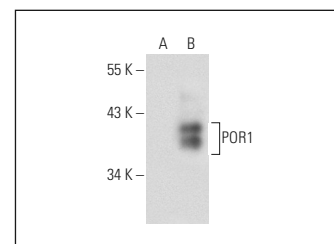
Molecular Weight of POR1: 33 kDa.

Positive Controls: POR1 (h): 293T Lysate: sc-171384, POR1 (m): 293T Lysate: sc-127368 or HeLa whole cell lysate: sc-2200.

DATA



POR1 (N-19): sc-9799. Western blot analysis of POR1 expression in non-transfected: sc-117752 (A) and mouse POR1 transfected: sc-127368 (B) 293T whole cell lysates.



POR1 (N-19): sc-9799. Western blot analysis of POR1 expression in non-transfected: sc-117752 (A) and human POR1 transfected: sc-171384 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Rangone, H., et al. 2005. Phosphorylation of arfaptin 2 at Ser 260 by Akt inhibits polyQ-Huntingtin-induced toxicity by rescuing proteasome impairment. *J. Biol. Chem.* 280: 22021-22028.

PROTOCOLS

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



Try **POR1 (E-3): sc-271478**, our highly recommended monoclonal alternative to POR1 (N-19).