

POSH (A-4): sc-376059

BACKGROUND

Rho, Rac and Cdc42 are members of the small GTPase family. These proteins act as molecular switches, cycling between an active GTP-bound state and an inactive GDP-bound state. Activation of these proteins results in rearrangements of filamentous Actin and the formation of actin stress fibers. Many of the targets of these GTPases are involved in signal transduction events mediated by Src3 homology (SH3) domains. POSH, for "plenty of SH3s", is a Rac binding protein with four SH3 domains. POSH preferentially interacts with the GTP form of RAC and not with the GDP-bound RAC. Ectopic expression of POSH elicits JNK activation and nuclear translocation of NFκB, suggesting that POSH is involved in Rac regulation of these kinase pathways. Overexpression of POSH has also been shown to induce apoptosis.

REFERENCES

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- Van Aelst, L. and D'Souza-Schorey, C. 1997. Rho GTPases and signaling networks. *Genes Dev.* 11: 2295-2322.
- Sasaki, T. and Takai, Y. 1998. The Rho small G protein family-Rho GDI system as a temporal and spatial determinant for cytoskeletal control. *Biochem. Biophys. Res. Commun.* 245: 641-645.
- Knaus, U.G. and Bokoch, G.M. 1998. The p21^{Rac/Cdc42}-activated kinases (PAKs). *Int. J. Biochem. Cell Biol.* 30: 857-862.
- Sudol, M. 1998. From Src Homology domains to other signaling modules: proposal of the "protein recognition code". *Oncogene* 17: 1469-1474.
- Tapon, N., et al. 1998. A new rac target POSH is an SH3-containing scaffold protein involved in the JNK and NFκB signalling pathways. *EMBO J.* 17: 1395-1404.

CHROMOSOMAL LOCATION

Genetic locus: SH3RF1 (human) mapping to 4q32.3; Sh3rf1 (mouse) mapping to 8 B3.1.

SOURCE

POSH (A-4) is a mouse monoclonal antibody raised against amino acids 591-880 mapping near the C-terminus of POSH of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

POSH (A-4) is recommended for detection of POSH of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 POSH siRNA (h): sc-36293, POSH siRNA (m): sc-36294, POSH shRNA Plasmid (h): sc-36293-SH, POSH shRNA Plasmid (m): sc-36294-SH, POSH shRNA (h) Lentiviral Particles: sc-36293-V and POSH shRNA (m) Lentiviral Particles: sc-36294-V.

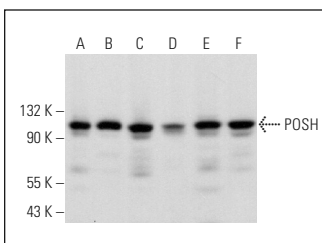
Molecular Weight of POSH: 110 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, A-431 whole cell lysate: sc-2201 or EOC 20 whole cell lysate: sc-364187.

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



POSH (A-4): sc-376059. Western blot analysis of POSH expression in KNRK (A), A-431 (B), Neuro-2A (C), EOC 20 (D), C6 (E) and AN3 CA (F) whole cell lysates.

RESEARCH USE

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