SANTA CRUZ BIOTECHNOLOGY, INC.

Spir-1 (P-17): sc-85163



BACKGROUND

Spir-1 (spire homolog 1) is a 756 amino acid protein that localizes to the cytoskeleton, as well as to the perinuclear region of the cytoplasm, and contains one KIND domain and 2 WH2 domains. Functioning as an actin nucleation factor, Spir-1 assists in new filament growth and is involved in vesicle transport processes, effectively providing a link between intracellular transport and actin organization. Multiple isoforms of Spir-1 exist due to alternative splicing events. The gene encoding Spir-1 maps to human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases. There are a variety of diseases associated with defects in chromosome 18localized genes, some of which include Trisomy 18 (also known as Edwards syndrome), Niemann-Pick disease, hereditary hemorrhagic telangiectasia, erythropoietic protoporphyria and follicular lymphomas.

REFERENCES

- 1. Hirosawa, M., Nagase, T., Ishikawa, K., Kikuno, R., Nomura, N. and Ohara, 0. 1999. Characterization of cDNA clones selected by the GeneMark analysis from size-fractionated cDNA libraries from human brain. DNA Res. 6: 329-336.
- 2. Kerkhoff, E., Simpson, J.C., Leberfinger, C.B., Otto, I.M., Doerks, T., Bork, P., Rapp, U.R., Raabe, T. and Pepperkok, R. 2001. The Spir actin organizers are involved in vesicle transport processes. Curr. Biol. 11: 1963-1968.
- 3. Schumacher, N., Borawski, J.M., Leberfinger, C.B., Gessler, M. and Kerkhoff, E. 2004. Overlapping expression pattern of the actin organizers Spir-1 and formin-2 in the developing mouse nervous system and the adult brain. Gene Expr. Patterns 4: 249-255.
- 4. Benzinger, A., Muster, N., Koch, H.B., Yates, J.R. and Hermeking, H. 2005. Targeted proteomic analysis of 14-3-3 σ , a p53 effector commonly silenced in cancer. Mol. Cell. Proteomics 4: 785-795.
- 5. Quinlan, M.E., Heuser, J.E., Kerkhoff, E. and Mullins, R.D. 2005. Drosophila Spire is an actin nucleation factor. Nature 433: 382-388.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609216. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: SPIRE1 (human) mapping to 18p11.21; Spire1 (mouse) mapping to 18 E1.

SOURCE

Spir-1 (P-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Spir-1 of human origin.

PRODUCT

Each vial contains 100 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85163 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Spir-1 (P-17) is recommended for detection of Spir-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).

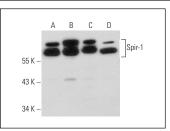
Spir-1 (P-17) is also recommended for detection of Spir-1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Spir-1 siRNA (h): sc-76567, Spir-1 siRNA (m): sc-153771, Spir-1 shRNA Plasmid (h): sc-76567-SH, Spir-1 shRNA Plasmid (m): sc-153771-SH, Spir-1 shRNA (h) Lentiviral Particles: sc-76567-V and Spir-1 shRNA (m) Lentiviral Particles: sc-153771-V.

Molecular Weight of Spir-1: 86 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, ARPE-19 whole cell lysate: sc-364357 or RPE-J cell lysate: sc-24771.

DATA



Spir-1 (P-17): sc-85163. Western blot analysis of Spir-1

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

MONOS

Satisfation

Guaranteed

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

alternatives to Spir-1 (P-17).

Try Spir-1 (4C5): sc-517039 or Spir-1 (H-1):

sc-515448, our highly recommended monoclonal

expression in U-251-MG (A), HEK293 (B), ARPE-19 (C) and RPE-J (D) whole cell lysates.