

SPIN1 (S-14): sc-160836



The Power to Question

BACKGROUND

SPIN1 (spindlin 1), also known as SPIN or ovarian cancer-related protein (OCR), is a 262 amino acid nuclear protein suggested to play a role in regulation of the cell-cycle during the transition from gamete to embryo. A member of the SPIN/STSY family, SPIN1 localizes to interphase nucleus and mitotic chromosomes, and is modified by phosphorylation in a cell-cycle-dependent fashion. A meiotic spindle-binding protein, SPIN1 overexpression has been shown to cause defects in mitotic spindles, thereby resulting in chromosome instability and potential tumorigenesis. SPIN1 is highly expressed in ovarian cancer cells and is encoded by a gene located on human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome.

REFERENCES

1. Casarin, M., et al. 1991. Changes in mixed venous oxygen saturation in ventilation with PEEP and continuous negative external pressure. *Minerva Anestesiol.* 57: 165-169.
2. Oh, B., et al. 1997. Spindlin, a major maternal transcript expressed in the mouse during the transition from oocyte to embryo. *Development* 124: 493-503.
3. Gao, Y., et al. 2005. Spindlin1, a novel nuclear protein with a role in the transformation of NIH3T3 cells. *Biochem. Biophys. Res. Commun.* 335: 343-350.
4. Jiang, F., et al. 2006. Expression, purification, crystallization and preliminary X-ray analysis of human spindlin1, an ovarian cancer-related protein. *Protein Pept. Lett.* 13: 203-205.
5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609936. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Yuan, H., et al. 2008. Overexpression of spindlin1 induces cellular senescence, multinucleation and apoptosis. *Gene* 410: 67-74.
7. Zhang, P., et al. 2008. Overexpression of spindlin1 induces metaphase arrest and chromosomal instability. *J. Cell. Physiol.* 217: 400-408.

CHROMOSOMAL LOCATION

Genetic locus: SPIN1 (human) mapping to 9q22.1; Spin1 (mouse) mapping to 13 A5.

SOURCE

SPIN1 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPIN1 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-160836 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPIN1 (S-14) is recommended for detection of SPIN1 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); non cross-reactive with SPIN2, SPIN3 or SPIN4.

SPIN1 (S-14) is also recommended for detection of SPIN1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SPIN1 siRNA (h): sc-92696, SPIN1 siRNA (m): sc-153759, SPIN1 shRNA Plasmid (h): sc-92696-SH, SPIN1 shRNA Plasmid (m): sc-153759-SH, SPIN1 shRNA (h) Lentiviral Particles: sc-92696-V and SPIN1 shRNA (m) Lentiviral Particles: sc-153759-V.

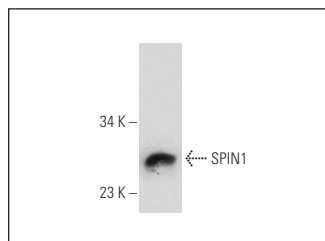
Molecular Weight of SPIN1: 30 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138 or mouse placenta extract: sc-364247.

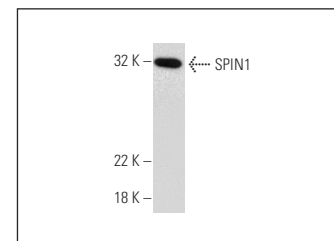
RECOMMENDED SECONDARY REAGENTS

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



SPIN1 (S-14): sc-160836. Western blot analysis of SPIN1 expression in mouse placenta tissue extract.



SPIN1 (S-14): sc-160836. Western blot analysis of SPIN1 expression in NIH/3T3 nuclear extract.

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.