

SCP-3 (M-14): sc-20845

BACKGROUND

Synaptonemal complexes are meiosis-specific nuclear organelles that are involved in chromosome rearrangements, such as chromosome pairing and recombination during meiotic prophase. SCP-2 and SCP-3 are major components of the lateral elements of synaptonemal complexes. SCP-3 is a sister chromatid arm cohesin during mammalian meiosis I. It has a C-terminal coiled-coil domain that promotes homotypic interactions *in vitro*. SCP-3 is expressed in testicular meiotic prophase cells and primordial germ cells. SCP-2 and SCP-3 first appear in leptotene-stage spermatocytes and disappear in late meiotic cells.

REFERENCES

- Schalk, J., et al. 1998. Localization of SCP-2 and SCP-3 protein molecules within synaptonemal complexes of the rat. *Chromosoma* 107: 540-548.
- Offenberg, H., et al. 1998. SCP-2: a major protein component of the axial elements of synaptonemal complexes of the rat. *Nucleic Acids Res.* 26: 2572-2579.
- Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602162. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: *Sycp3* (mouse) mapping to 10 C1.

SOURCE

SCP-3 (M-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SCP-3 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-20845 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SCP-3 (M-14) is recommended for detection of SCP-3 of mouse and rat 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 SCP-3 siRNA (m): sc-37646, SCP-3 shRNA Plasmid (m): sc-37646-SH and SCP-3 shRNA (m) Lentiviral Particles: sc-37646-V.

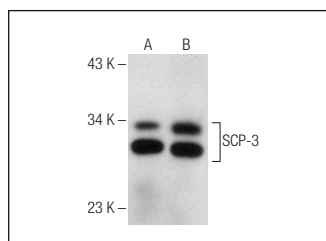
Molecular Weight of SCP-3 isoforms: 30/33 kDa.

Positive Controls: mouse testis extract: sc-2405, rat testis extract: sc-2400 or mouse embryo liver extract: sc-364239.

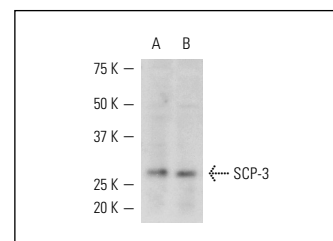
RECOMMENDED SECONDARY REAGENTS

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



SCP-3 (M-14): sc-20845. Western blot analysis of SCP-3 expression in mouse testis (A) and rat testis (B) tissue extracts.



SCP-3 (M-14): sc-20845. Western blot analysis of SCP-3 expression in mouse embryo (A) and mouse testis (B) tissue extracts.

SELECT PRODUCT CITATIONS

- Brower, J.V., et al. 2009. Adenine nucleotide translocase 4 deficiency leads to early meiotic arrest of murine male germ cells. *Reproduction* 138: 463-470.
- Sun, X. and Cohen, P.E. 2013. Studying recombination in mouse oocytes. *Methods Mol. Biol.* 957: 1-18.

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.



Try **SCP-3 (D-1): sc-74569** or **SCP-3 (G-3): sc-74568**, our highly recommended monoclonal alternatives to SCP-3 (M-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SCP-3 (D-1): sc-74569**.