



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 



SMC-1. Mouse Monoclonal Antibody

BACKGROUND

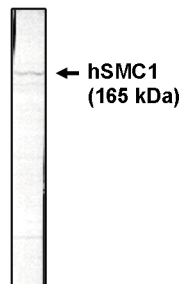
Structural Maintenance of Chromosomes (SMC) family proteins play critical roles in various nuclear events that require structural changes of chromosomes, including mitotic chromosome organization, DNA recombination and repair and global transcriptional repression. The chromosome proteins are conserved in eukaryotes lead to mitotic chromosome segregation defects, suggesting a critical function of SMC family proteins in mitotic chromosome dynamics.

SMC1 and SMC3 form a heterodimeric complex required for metaphase progression in mitotic cells. Specifically this SMC1/SMC3 complex is responsible for sister chromatid cohesion during metaphase. A number of cellular factors interact with hSMC1/hSMC3 during cell cycle. The major population of hSMC1/hSMC3 is in a complex with hRAD21 forming the human cohesion complex. Human cohesion associates with chromosomes which peaks at S phase and dissociates from chromosomes during G2/M transition. In addition, a subpopulation of hSMC1/hSMC3 associates tightly with nuclear matrix and centrosomes during interphase. A subset of hSMC1/hSMC3 is localized to spindle poles, spindles and kinetochores during mitosis when cohesin is in the cytoplasm. hSMC1/hSMC3 is required for spindle aster formation in vitro and reacts with nuclear mitotic apparatus (2) protein in vivo.

IMMUNOGEN

Hybridoma produced by the fusion of splenocytes from mice immunized with recombinant protein corresponding to amino acids 402-894 of human SMC1 and mouse myeloma cells.

Western blotting using SMC1 antibody on HeLa cell lysate at 1 µg/ml.



ORDERING INFORMATION

CATALOG NUMBER

X1324M

SIZE

100 µg

FORM

Unconjugated

HOST/CLONE

Mouse Clone C2M

FORMULATION

Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION

See vial for concentration

ISOTYPE

APPLICATIONS

Western Blot, Immunofluorescence

SPECIES REACTIVITY

Human

ACCESSION NUMBER

Human Q14683

POSITIVE CONTROL/TISSUE EXPRESSION

HeLa cells

COMMENTS

This antibody can be used for Western blotting (1-5 $\mu\text{g/ml}$) and immunofluorescence (5-10 $\mu\text{g/ml}$). Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

Protein A/G Chromatography

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C . Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Ejjpe, M., et al. 'Association of mammalian SMC1 and SMC3 proteins with meiotic chromosomes and synaptonemal complexes.' *J. Cell Sci.* 2000, 113, 673-682.
2. Stursberg, S., et al. 'Cloning and characterization of mammalian SMC1 and SMC3 genes and proteins, components of the DNA recombination complexes RC-1.' *Gene* 1999, 228, 1-12.
3. Strunnikov, A.V., et al. 'SMC1: an essential yeast gene encoding a putative head-rod-tail protein is required for nuclear division and defines a new ubiquitous protein family.' *J. Cell Biol.* 1993, 123, 1635-1648.

PRODUCT SPECIFIC REFERENCES