OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AP01685PU-M

SMC1 (SMC1A) pSer957 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	**Western Blot:** 1/500-1/1000. **Immunohistochemistry on paraffin sections:** 1/50-1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of SMC1 pSer957 protein.
Formulation:	Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative. State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE).
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Predicted Protein Size:	~ 143 kDa
Gene Name:	structural maintenance of chromosomes 1A
Database Link:	Entrez Gene 24061 MouseEntrez Gene 8243 Human Q14683

View online »

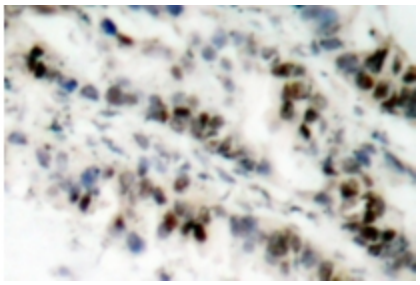
Background: Structural Maintenance of Chromosomes (SMC) family proteins play critical roles in various nuclear events that require structural changes of chromosomes, including mitotic chromosome organization, DNA recombination and repair and global transcriptional repression. The chromosome proteins are conserved in eukaryotes and can 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 compex with hRAD21 forming the human cohesion complex. Human cohesion complex 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 protein in vivo.

Synonyms: SMC protein 1A, SMC-1A, SMC-1-alpha, SMC1L1, DXS423E

Protein Families: Druggable Genome

Protein Pathways: Cell cycle, Oocyte meiosis

Product images:



Immunohistochemistry (IHC) analysis of SMC1 pSer957 antibody (Cat.-No.: [AP01685PU-N]) in paraffin-embedded human lung carcinoma tissue.