

Product datasheet for **AM06475SU-N**

SMC1 (SMC1A) Mouse Monoclonal Antibody [Clone ID: 5B6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	5B6
Applications:	FC, IF, IHC, WB
Recommended Dilution:	Western Blot: 1/500 - 1/2000. Immunohistochemistry on paraffin sections: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified recombinant fragment of human SMC1 expressed in E. Coli.
Specificity:	This antibody reacts to SMC1.
Formulation:	State: Ascites State: Ascitic fluid containing 0.03% sodium azide.
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 8243 Human Q14683



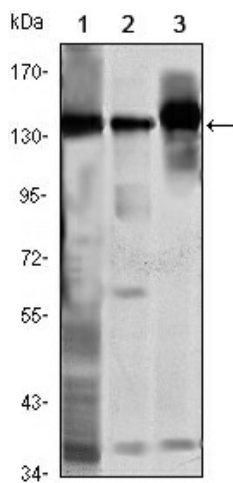
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Background:

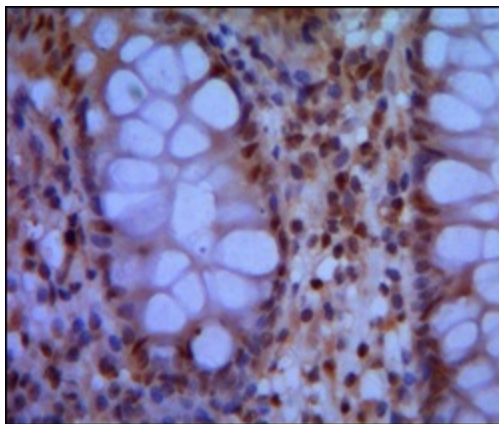
Proper cohesion of sister chromatids is a prerequisite for the correct segregation of chromosomes during cell division. The cohesin multiprotein complex is required for sister chromatid cohesion. This complex is composed partly of two structural maintenance of chromosomes (SMC) proteins, SMC3 and either SMC1L2 or the protein encoded by this gene. Most of the cohesin complexes dissociate from the chromosomes before mitosis, although those complexes at the kinetochore remain. Therefore, the encoded protein is thought to be an important part of functional kinetochores. In addition, this protein interacts with BRCA1 and is phosphorylated by ATM, indicating a potential role for this protein in DNA repair. This gene, which belongs to the SMC gene family, is located in an area of the X-chromosome that escapes X inactivation.

Synonyms:

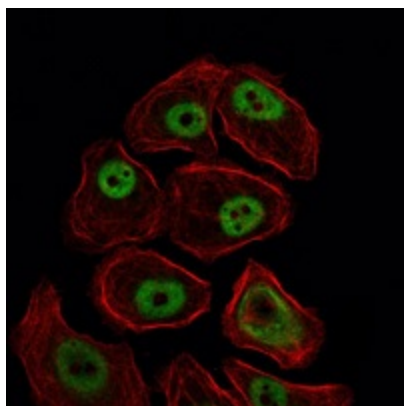
SMC protein 1A, SMC-1A, SMC-1-alpha, SMC1L1, DXS423E

Product images:

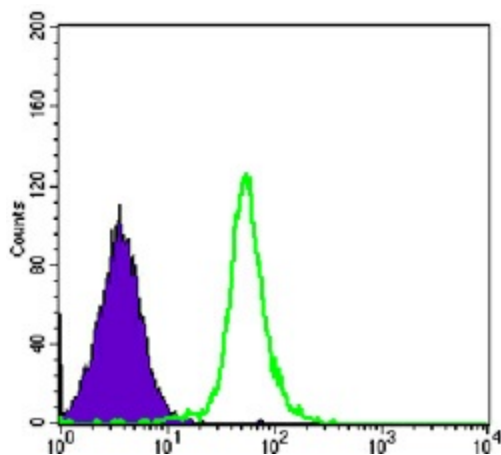
Western blot analysis using SMC1 mouse mAb against K562 (1), Jurkat (2) and A549 (3) cell lysate.



Immunohistochemical analysis of paraffin-embedded human colon using SMC1 mouse mAb with DAB staining.



Immunofluorescence analysis of NIH/3T3 cells using SMC1 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of HeLa cells using SMC1 mouse mAb (green) and negative control (purple).