

## Product datasheet for **TA347051**

### SMC1 (SMC1A) Mouse Monoclonal Antibody [Clone ID: 8E6-A4-F3]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	8E6-A4-F3
Applications:	FC, IHC, WB
Recommended Dilution:	WB: 1:1000, FC: 1:100
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	The immunogen for SMC1A antibody: purified recombinant human SMC1A(N-terminus) protein fragments expressed in E.coli.
Formulation:	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.02% sodium azide, 50% glycerol
Purification:	Affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	143 kDa
Gene Name:	structural maintenance of chromosomes 1A
Database Link:	<a href="#">NP_006297</a> <a href="#">Entrez Gene 8243 Human</a> <a href="#">Q14683</a>



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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:**

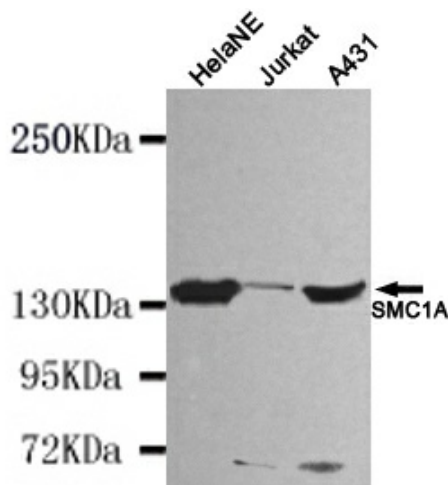
CDLS2; DXS423E; SB1.8; SMC1; SMC1alpha; SMC1L1; SMCB

**Protein Families:**

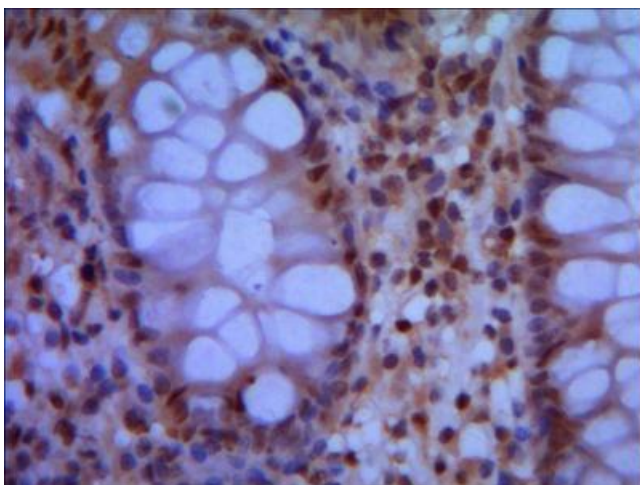
Druggable Genome

**Protein Pathways:**

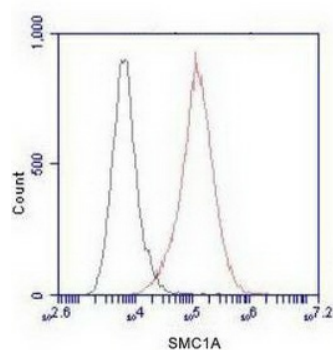
Cell cycle, Oocyte meiosis

**Product images:**

Western blot detection of SMC1A (N-terminus) in HeLaNE, Jurkat and A431 cell lysates using SMC1A (N-terminus) mouse mAb (1:1000 diluted). Predicted band size: 143KDa. Observed band size: 143KDa.



IHC of paraffin-embedded human colon using anti-SMC1A (N-terminus) mouse mAb diluted 1/500-1/1000.



Flow Cytometry analysis of HeLa cells stained with SMC1A (N-terminus) (red, 1/100 dilution), followed by FITC-conjugated goat anti-mouse IgG. Black line histogram represents the isotype control, normal mouse IgG.